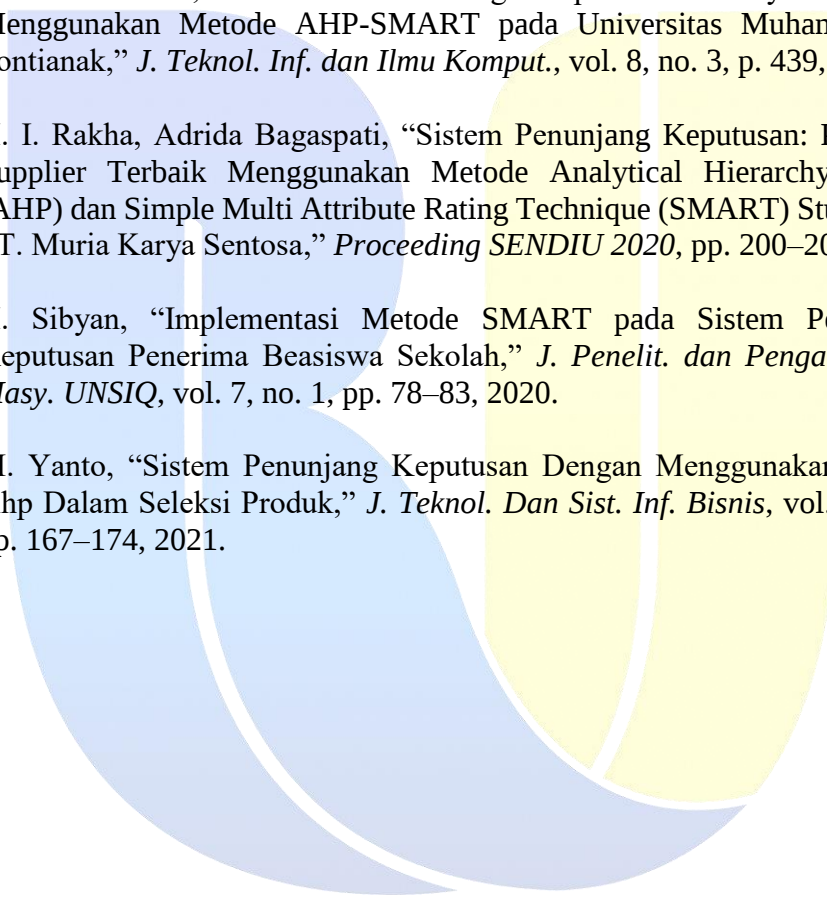


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Tempat Tanggal Lahir : Tanjungbalai. 29 Maret 1999
Jenis Kelamin : Laki-laki
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SD : SD Negeri 132413 Tanjungbalai
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ROYAL

Kisaran, 04 Oktober 2024

 Nomor : 199-011/PP-00.10/UR/X/2024
 Hal : Permohonan Riset

 Kepada Yth.
 Pimpinan PT. Indako Trading Coy Kota Medan
 di_
Tempat

Dengan Hormat,

Semoga Tuhan Yang Maha Esa senantiasa memberikan kemudahan bagi kita semua dalam menjalankan aktivitas sehari-hari.

Universitas Royal sebagai salah satu perguruan tinggi penyelenggaraan program pendidikan Strata I (S1) dengan ini mengajukan permohonan kepada Bapak/Ibu agar kiranya dapat menerima Mahasiswa/I kami melaksanakan kegiatan Riset yang dilaksanakan pada tanggal **05 Oktober 2024 - 05 November 2024**. Berikut ini data mahasiswa yang akan melaksanakan Riset :

No	Nama Mahasiswa	Program Studi	L/P	NIM
1	M. Tohir Panjaitan	Sistem Informasi-S1	L	18.22.0481

Adapun Tujuan dilaksanakannya Riset ini untuk Menyelesaikan Penulisan Skripsi Program Strata I (S1) Universitas Royal. Judul Skripsi : "*Implementasi Metode AHP dan Smart dalam Pemilihan Ahhas Terbaik pada PT. Indako Trading Coy Berbasis Website*".

Demikian permohonan ini kami sampaikan. Atas perhatian, kesediaan, dan kerjasama yang baik kami ucapkan terima kasih.


 Hormat Kami
 Rektor,
Wan Mariatul Kifti, M.M.
 NIDN. 0114057302

 Tembusan :
 - Arsip



Medan, 16 Desember 2024

Nomor : ITC/MKT/ED/160/11/24
Perihal : Izin Riset

Kepada Yth:
Rektor UNIVERSITAS ROYAL
Di: Tempat

1. Schubungan dengan surat UNIVERSITAS ROYAL Nomor : 199-011/PP-00.10/UR/X/2024, Perihal Permohonan Riset.
2. Memenuhi maksud diatas PT. INDAKO TRADING COY memberikan izin riset yang bertujuan untuk pembuatan Skripsi kepada:

Nama	: M. Thohir Panjaitan
NIM	: 18.22.0481
Program Studi	: Sistem Infomasi
Judul Penelitian	: Implementasi Metode AHP dan Smart dalam Pemilihan Ahhas Terbaik pada PT. Indako Trading Coy Berbasis Website.
3. Demikian disampaikan kiranya saudara dapat melaksanakannya.

Medan, 16 Desember 2024
Pimpinan,

Gideon Budiharjo



PT. INDAKO TRADING COY
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UNIVERSITAS ROYAL
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PROGRAM STUDI SISTEM INFORMASI

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LEMBAR KONSULTASI SKRIPSI

Nama Mahasiswa : M.THOHIR PANJAITAN
 NIM : 18220481
 Program Studi : Sistem Informasi
 Judul Skripsi/TA : IMPLEMENTASI METODE AHP DAN SMART DALAM PEMILIHAN AHASS TERBAIK
 DI KABUPATEN ASAHAN OLEH PT INDAKO TRADING COY BERBASIS WEBSITE.
 Dosen Pembimbing : 1. RIKI ANDRI YUSDA, M.Kom
 2. ELLY RAHAYU, SE, MM
 Lembar Konsultasi : Pembimbing 1
 Tanggal Pertemuan : 25 Mei 2023
 Pertama

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
25-05-2023	1. Lebih dipahami kembali topik pembahasan dari masalah yang ada dalam hal penentuan AHASS terbaik; 2. Silakan ambil kutipan dari jurnal atau buku sebagai bahan referensi untuk memperjelas Latar Belakang Masalah; 3. Antara Latar Belakang Masalah dan Identifikasi Masalah harus berhubungan; 4. Hati-hati dengan pernyataan "manual" pada Latar Belakang Masalah dan Identifikasi Masalah; 5. Seluruh penjelasan pada Bab 1 harus saling berhubungan dengan pembahasan masalah.		BAB I (Revisi)
06-07-2023	1. Cek kembali Latar Belakang Masalah dan Identifikasi Masalah dari penelitian.		BAB I (Revisi)
10-07-2023	1. Pahami masalah yang menjadi pembahasan pada laporan skripsi; 2. Lanjut penulisan Bab 2.		BAB I (ACC)
17-07-2023	1. Baca terlebih dahulu Bab yang akan dikirimkan ke dosen pembimbing; 2. Untuk pengambilan sitasi dari sumber referensi, setiap bab harus berkelanjutan penomoran sitasinya; 3. Belum ada pembahasan mengenai Aliran Sistem Informasi dan simbol yang digunakan pada alat bantu perancangan sistem; 4. Tambahkan penjelasan mengenai tugas dan fungsi dari setiap personil yang ada pada bagan struktur organisasi; 5. Untuk hipotesis, coba di baca dulu apakah berhubungan dengan penelitian yang sedang dilakukan.		BAB II (Revisi)
02-08-2023	1. Lanjut penulisan Bab 3.		BAB II (ACC)
11-03-2024	1. Silakan cek kembali metode penelitian yang digunakan;		BAB III (Revisi)

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
	2. Cara pengumpulan data dipengaruhi oleh metode penelitian yang digunakan, silakan cek kembali; 3. Untuk jadwal kegiatan sesuaikan dengan kegiatan sekarang.	X	
16-03-2024	1. Selesaikan bimbingan dengan Dosen Pembimbing 2; 2. Persiapkan untuk seminar proposal.	X	BAB III (ACC)
16-03-2024	1. Daftar ke seminar proposal.	X	Seminar Proposal (ACC)
09-08-2024	1. Pastikan aktor yang terlibat pada sistem yang berjalan dan yang akan diusulkan; 2. Sesuaikan aktor yang terlibat dengan analisis pengguna; 3. Pahami fungsi dari masing-masing metode yang digunakan; 4. Use Case Diagram sesuaikan dengan aktor pada aliran sistem yang diajukan; 5. Pahami database yang digunakan; 6. Flowchart program yang dirancang belum ada.	X	BAB IV (Revisi)
16-08-2024	1. Lanjut penulisan Bab 5.	X	BAB IV (ACC)
21-08-2024	1. Lanjut penulisan Bab 6.	X	BAB V (ACC)
23-12-2024	1. Lanjut tes program.	X	BAB VI (ACC)
24-12-2024	1. Persiapkan semua dokumen untuk seminar hasil.	X	Pengujian Alat/Aplikasi (ACC)
02-01-2025	1. Daftar ke seminar hasil.	X	Seminar Hasil (ACC)
11-03-2025	1. Lanjut sidang meja hijau.	X	Sidang Meja Hijau (ACC)

Kisaran, 21 Mei 2025

Ka. Prodi Sistem Informasi



Nurwati, M. Kom.
NIDN: 0101068701

Nama Mahasiswa : M.THOHIR PANJAITAN
 NIM : 18220481
 Program Studi : Sistem Informasi
 Judul Skripsi/TA : IMPLEMENTASI METODE AHP DAN SMART DALAM PEMILIHAN AHASS TERBAIK
 DI KABUPATEN ASAHAN OLEH PT INDAKO TRADING COY BERBASIS WEBSITE.
 Dosen Pembimbing : 1. RIKI ANDRI YUSDA, M.Kom
 2. ELLY RAHAYU, SE, MM
 Lembar Konsultasi : Pembimbing 2
 Tanggal Pertemuan : 6 Maret 2024
 Pertama

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
06-03-2024	Revisi BAB I 1. Margin tulisan Kiri,Kanan Atas Bawah pastikan sesuai dengan panduan penulisan skripsi 2. Font dan Size tulisan Time New Roman 12. Jika mengcopy pasta dari dokumen referensi pastikan font sizenya menyesuaikan dengan panduan 3. Penulisan kata berbahasa asing harus miring 4. Penulisan referensi menggunakan style IEEE	f	BAB I (Revisi)
12-03-2024	ACC BAB I Lanjut BAB II	f	BAB I (ACC)
14-03-2024	Revisi BAB II 1. Penulisan Referensi mdibawah gambar atau tabel mengacu ke panduan skripsi 2. Penulisan kata/kalimat yang menggunakan huruf kapital sesuaikan dengan Ejaan dalam bahasa Indoensia 3. Penggunaan bahaa asing wajib dimiringkan sesuai panduan	f	BAB II (Revisi)
16-03-2024	ACC Bab II Lanjut BAB III	f	BAB II (ACC)
21-03-2024	ACC Bab III Lanjut Simpro	f	BAB III (ACC)
21-03-2024	ACC Seminar Proposal	f	Seminar Proposal (ACC)
24-12-2024	BAB IV Revisi: 1. Penulisan Kalimat/kata berbahasa asing diilmiringkan 2. Referensi dibawah tabel atau gambar sesuaikan dengan panduan	f	BAB IV (Revisi)
27-12-2024	ACC BAB IV Lanjut BAB V	f	BAB IV (ACC)
30-12-2024	ACC BAB V Lanjut BAB V	f	BAB V (ACC)
02-01-2025	ACC BAB VI Lanjut Pengujian Alat/Aplikasi	f	BAB VI (ACC)
02-01-2025	ACC Pengujian Alat/Aplikasi	f	Pengujian Alat/Aplikasi (ACC)
02-01-2025	ACC Seminar Hasil	f	Seminar Hasil (ACC)

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
13-03-2025	ACC Sidang Meja Hijau		Sidang Meja Hijau (ACC)

Kisaran, 21 Mei 2025

Ka. Prodi Sistem Informasi



Nurwati, M.Kom.
NIDN: 0101068701

```

Aksi.php
<?php
require_once'functions.php';

/** login */
if ($mod=='login'){
    $user = esc_field($_POST['user']);
    $pass = esc_field($_POST['pass']);

    $row = $db->get_row("SELECT * FROM tb_user WHERE user='$user' AND
pass='$pass'");
    if($row){
        $_SESSION['login'] = $row->user;
        $_SESSION['nama'] = $row->nama;
        $_SESSION['level'] = $row->level;
        redirect_js("index.php");
    } else{
        print_msg("Kata Sandi yang anda masukkan Salah");
    }
}

/** password */
else if ($mod=='password'){
    $pass1 = $_POST['pass1'];
    $pass2 = $_POST['pass2'];
    $pass3 = $_POST['pass3'];

    $row = $db->get_row("SELECT * FROM tb_user WHERE
user='$_SESSION[login]' AND pass='$pass1'");

    if($pass1==" || $pass2==" || $pass3==" )
        print_msg('Field bertanda * harus diisi. ');
    elseif(!$row)
        print_msg('Password lama salah. ');
    elseif( $pass2 != $pass3 )
        print_msg('Password baru dan konfirmasi password baru tidak sama. ');
    else{
        $db->query("UPDATE tb_user SET pass='$pass2' WHERE
user='$_SESSION[login]'");
        print_msg('Password berhasil diubah.', 'success');
    }
} elseif($act=='logout'){
    unset($_SESSION['login']);
    unset($_SESSION['level']);
    unset($_SESSION['nama']);

    header("location:index.php");
}

```

```

}

/** tambah alternatif */
if($mod=='tambah_alternatif'){
    $kode = $_POST['kode'];
    $nama = $_POST['nama'];
    $keterangan = $_POST['keterangan'];

    if($kode==" || $nama==" )
        print_msg("Field yang bertanda * tidak boleh kosong!");
    elseif($db->get_results("SELECT * FROM tb_alternatif WHERE
kode_alternatif='$kode'"))
        print_msg("Kode sudah ada!");
    else{
        $db->query("INSERT INTO tb_alternatif (kode_alternatif, nama_alternatif,
keterangan) VALUES ('$kode', '$nama', '$keterangan')");
        foreach($_POST['nilai'] as $key => $val){
            $db->query("INSERT INTO tb_rel_alternatif(kode_alternatif,
kode_kriteria, kode_crips) VALUES ('$kode', '$key', '$val')");
        }
        redirect_js("index.php?m=alternatif");
    }
    //ubah alternatif
} else if($mod=='ubah_alternatif'){
    $kode = $_POST['kode'];
    $nama = $_POST['nama'];
    $keterangan = $_POST['keterangan'];
    if($kode==" || $nama==" )
        print_msg("Field yang bertanda * tidak boleh kosong!");
    else{
        $db->query("UPDATE tb_alternatif SET nama_alternatif='$nama',
keterangan='$keterangan' WHERE kode_alternatif=$_GET[ID]");
        foreach($_POST['nilai'] as $key => $val){
            $db->query("UPDATE tb_rel_alternatif SET kode_crips='$val' WHERE
ID='$key'");
        }
        redirect_js("index.php?m=alternatif");
    }
    //hapus alternatif
} else if ($act=='alternatif_hapus'){
    $db->query("DELETE FROM tb_alternatif WHERE
kode_alternatif=$_GET[ID]");
    $db->query("DELETE FROM tb_rel_alternatif WHERE
kode_alternatif=$_GET[ID]");
    header("location:index.php?m=alternatif");
}

/** kriteria */

```

```

if($mod=='tambah_kriteria'){
    $kode = $_POST['kode'];
    $nama = $_POST['nama'];
    $atribut = $_POST['atribut'];
    $bobot = '0';

    if($kode==" || $nama==" || $atribut==" || $bobot==" )
        print_msg("Field bertanda * tidak boleh kosong!");
    elseif($db->get_results("SELECT * FROM tb_kriteria WHERE
kode_kriteria='$kode'"))
        print_msg("Kode sudah ada!");
    else{
        $db->query("INSERT INTO tb_kriteria (kode_kriteria, nama_kriteria,atribut,
bobot) VALUES ('$kode', '$nama','$atribut','$bobot')");
        $db->query("INSERT INTO tb_rel_alternatif(kode_alternatif, kode_kriteria,
kode_crips) SELECT kode_alternatif, '$kode', -1 FROM tb_alternatif");
        redirect_js("index.php?m=kriteria");
    }
} else if($mod=='ubah_kriteria'){
    $kode = $_POST['kode'];
    $nama = $_POST['nama'];
    $atribut = $_POST['atribut'];
    $bobot = $_POST['bobot'];

    if($nama==" || $atribut==" || $bobot==" )
        print_msg("Field bertanda * tidak boleh kosong!");
    else{
        $db->query("UPDATE tb_kriteria SET nama_kriteria='$nama',
atribut='$atribut', bobot='$bobot' WHERE kode_kriteria='$_GET[ID]')");
        redirect_js("index.php?m=kriteria");
    }
} else if ($act=='kriteria_hapus'){
    $db->query("DELETE FROM tb_kriteria WHERE
kode_kriteria='$_GET[ID]')");
    $db->query("DELETE FROM tb_rel_alternatif WHERE
kode_kriteria='$_GET[ID]')");
    header("location:index.php?m=kriteria");
}

/** relasi */
/** CRIPS */
if($mod=='crisp_tambah'){
    $nilai = $_POST['nilai'];
    $nama_crips = $_POST['nama_crips'];

    if($nilai==" || $nama_crips==" )
        print_msg("Nilai dan nama tidak boleh kosong!");
    else{

```

```

        $db->query("INSERT INTO tb_crips (kode_kriteria, nilai, nama_crips)
VALUES ('$_POST[kode_kriteria]', '$nilai', '$nama_crips')");
        redirect_js("index.php?m=crips&kode_kriteria=$_GET[kode_kriteria]");
    }
} else if($mod=='crips_ubah'){
    $nilai = $_POST['nilai'];
    $nama_crips = $_POST['nama_crips'];

    if($nilai==" || $nama_crips==" )
        print_msg("Nilai dan nama tidak boleh kosong!");
    else{
        $db->query("UPDATE tb_crips SET nilai='$nilai',
nama_crips='$nama_crips' WHERE kode_crips=$_GET[ID]");
        redirect_js("index.php?m=crips&kode_kriteria=$_GET[kode_kriteria]");
    }
} else if ($act=='crips_hapus'){
    $db->query("DELETE FROM tb_crips WHERE kode_crips=$_GET[ID]");
    header("location:index.php?m=crips&kode_kriteria=$_GET[kode_kriteria]");
}

if($mod=='tambah_nasabah'){
    $no_anggota = $_POST['no_anggota'];
    $nama = $_POST['nama'];
    $password = $_POST['password'];
    $unit = $_POST['unit'];

    if($no_anggota==" || $nama==" || $password==" || $unit==" )
        print_msg("Field bertanda * tidak boleh kosong!");
    elseif($db->get_results("SELECT * FROM tb_nasabah WHERE
no_anggota='$no_anggota'"))
        print_msg("Nomor Anggota sudah ada!");
    else{
        $db->query("INSERT INTO tb_nasabah (no_anggota, nama,password, unit)
VALUES ('$no_anggota', '$nama','$password','$unit')");
        redirect_js("index.php?m=nasabah");
    }
} else if($mod=='ubah_nasabah'){
    $no_anggota = $_POST['no_anggota'];
    $nama = $_POST['nama'];
    $password = $_POST['password'];
    $unit = $_POST['unit'];

    if($no_anggota==" || $nama==" || $password==" || $unit==" )
        print_msg("Field bertanda * tidak boleh kosong!");
    else{
        $db->query("UPDATE tb_nasabah SET no_anggota='$no_anggota',
nama='$nama', password='$password',unit='$unit' WHERE id=$_GET[ID]");
        redirect_js("index.php?m=nasabah");
    }
}

```

```

}
} else if ($act=='nasabah_hapus'){
    $db->query("DELETE FROM tb_nasabah WHERE id='$_GET[ID]'");
    header("location:index.php?m=nasabah");
}

if($mod=='upload_file'){
    $id_nasabah = $_POST['a'];
    $nama_file = $_POST['nama'];
    $file_tmpname = $_FILES['file']['tmp_name'];
    //untuk nama file url
    $file = rand(1000,100000)."-" .$_FILES['file']['name'];
    $new_file_name = strtolower($file);
    $final_file = str_replace(' ','-',$new_file_name);
    //untuk nama file
    $filename = rand(1000,100000)."-" .pathinfo($_FILES['file']['name'],
PATHINFO_FILENAME);
    $new_filename = strtolower($filename);
    $finalfile = str_replace(' ','-',$new_filename);
    $size = filesize($file_tmpname);
    $size2 = (filesize($file_tmpname))/1024;
    $info = pathinfo($final_file );
    $file_source = fopen($file_tmpname, 'rb');
    $ext = $info["extension"];

    if( $ext=="docx" || $ext=="doc" || $ext=="txt" || $ext=="pdf" || $ext=="xls" ||
    $ext=="xlsx" || $ext=="ppt" || $ext=="pptx"){
    }else{
        print_msg('Maaf, file yang bisa dienkrip hanya word, excel, text, ppt ataupun
pdf.');
```

}

```

    if($size2>3084){
        print_msg('Maaf, file tidak bisa lebih besar dari 3MB.');
```

}

```

    $db->query("INSERT INTO tb_file (id_nasabah, nama_file,lokasi_file, status)
VALUES ('$user', '$nama_file','Ditinjau')");
    $db->get_results("SELECT * FROM tb_file where lokasi_file =");

    $file_url = "file/$final_file";
    $db->query("UPDATE tb_file SET lokasi_file ='$file_url' WHERE
lokasi_file=");
    $file_output = fopen($file_url, 'wb');
    $mod = $size%16;
    if($mod==0){
        $banyak = $size / 16;
    }else{
        $banyak = ($size - $mod) / 16;
    }
}

```

```

    $banyak = $banyak+1;
}

if(is_uploaded_file($file_tmpname)){
    ini_set('max_execution_time', -1);
    ini_set('memory_limit', -1);

    for($bawah=0;$bawah<$banyak;$bawah++){
        $data = fread($file_source, 16);
        $cipher = $data;
        fwrite($file_output, $cipher);
    }
    fclose($file_source);
    fclose($file_output);
    print_msg('Upload Berkas Berhasil.');
```

else{

```

    print_msg('Upload Berkas mengalami masalah..');
}

redirect_js("index.php?m=file_upload");

} else if ($act=='file_hapus'){
    $db->query("DELETE FROM tb_file WHERE id='$_GET[ID]'");
    header("location:index.php?m=file_upload");
}
else if($act=='terima'){
    $status = 'Diterima';
    $db->query("UPDATE tb_file SET status='$status' WHERE id='$_GET[ID]'");
    redirect_js("index.php?m=validasi_file");
}
?>
```

UNIVERSITAS
ROYAL

Alternative.php

```
<div class="row">
  <div class="col-xs-12">
    <div class="box">
      <div class="box-header">
        <h3 class="box-title">Data Alternatif </h3>
        <form class="form-inline">
          <input type="hidden" name="m" value="alternatif" />
          <div class="form-group col-md-6">
            <input class="form-control" type="text" placeholder="Pencarian. . ."
name="q" value="<?=@$_GET['q']?>" />
          </div>
          <div class="form-group">
            <a style="margin-left: 430px" class='pull-right btn btn-primary btn-md'
href="?m=tambah_alternatif"><span class="glyphicon glyphicon-plus"></span>
Tambah</a>
          </div>
        </form>
      </div><!-- /.box-header -->
      <div class="box-body">
        <table id="example2" class="table table-bordered table-hover">
          <thead>
            <tr>
              <th>No</th>
              <th>Kode</th>
              <th>Nama Alternatif</th>
              <?php foreach($KRITERIA as $key => $val):?>
                <th><?=$val->kode_kriteria?></th>
              <?php endforeach?>
              <th>Aksi</th>
            </tr>
          </thead>
          <tbody>
            <?php
            @$q = esc_field($_GET['q']);
            $rows = $db->get_results("SELECT * FROM tb_alternatif WHERE
nama_alternatif LIKE '%$q%' ORDER BY kode_alternatif");
            $no=0;

            $analisa = get_analisa();
            foreach($rows as $row):?>
              <tr>
                <td ><?==+$no ?></td>
                <td ><?=$row->kode_alternatif?></td>
                <td ><?=$row->nama_alternatif?></td>
                <?php foreach($analisa[$row->kode_alternatif] as $k => $v):?>
                  <td ><?=$v?></td>
```

```
<?php endforeach?>
<td >
    <a class="btn-sm btn-warning"
href="?m=ubah_alternatif&ID=<?=$row->kode_alternatif?>">Ubah</a>
    <a class="btn-sm btn-danger"
href="aksi.php?act=alternatif_hapus&ID=<?=$row->kode_alternatif?>"
onclick="return confirm('Hapus data?')">Hapus</a>
</td>
</tr>
<?php endforeach;?>
</tbody>
</table>
</div>
</div>
</div>
```

UNIVERSITAS
ROYAL

Bobot_kriteria.php

```
<?php
```

```
include('koneksi.php');
```

```
include('fungsi.php');
```

```
?>
```

```
<div class="row">
```

```
    <div class="col-xs-8">
```

```
        <div class="box">
```

```
            <div class="box-header">
```

```
                <h3 class="box-title">Perbandingan Kriteria</h3>
```

```
                <a style="margin-left: 10px" class="pull-right btn btn-primary" href="?m=kriteria">Lihat Kriteria</a>
```

```
            </div><!-- /.box-header -->
```

```
            <div class="box-body">
```

```
                <?php showTabelPerbandingan2(); ?>
```

```
            </div>
```

```
        </div>
```

```
    </div>
```

```
<div class="col-lg-4">
```

```
    <div class="box">
```

```
        <div class="box-header">
```

```
            <h3 class="box-title">Tabel Tingkat Kepentingan menurut Saaty (1980)</h3>
```

```
            <table id="example2" class="table table-bordered table-hover">
```

```
                <thead>
```

```
                    <tr>
```

```
                        <th>Nilai</th>
```

```
                        <th>Tingkat
```

```
                        <th>Kepentingan </th>
```

```
                    </tr>
```

```
                </thead>
```

```
                <tbody>
```

```
                    <tr>
```

```
                        <td class="center aligned">1</td>
```

```
                        <td>Sama pentingnya
```

```
                    </td>
```

```
                    </tr>
```

```
                    <tr>
```

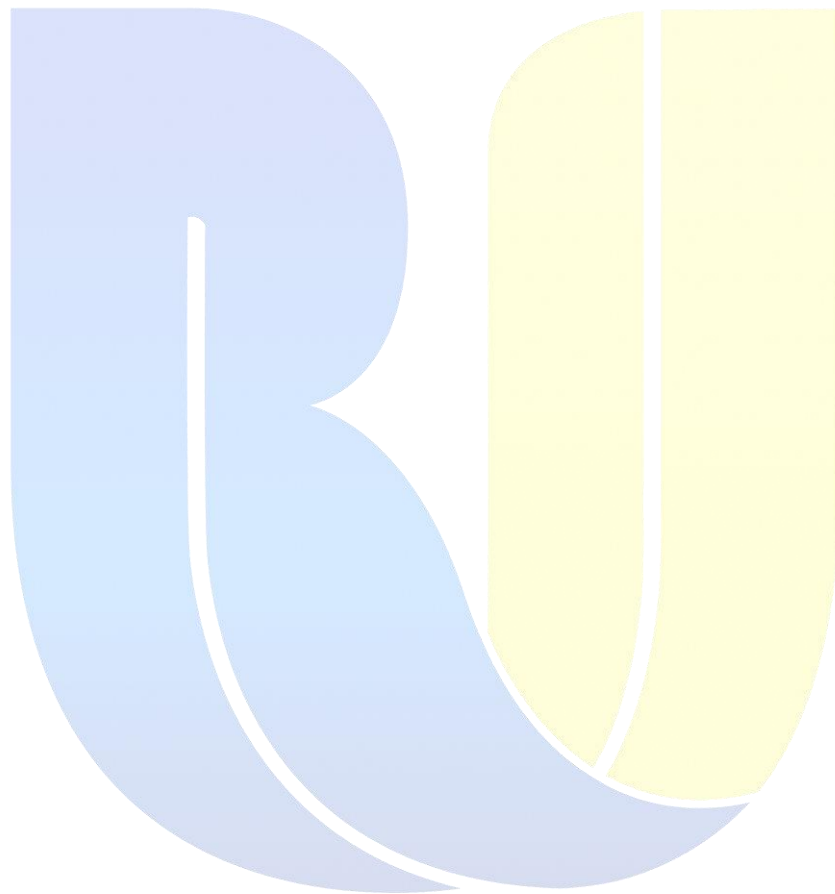
```
                        <td class="center aligned">2</td>
```

```

sedikit lebih penting</td>
</tr>
<tr>
<td class="center
<td>Sedikit lebih
</tr>
<tr>
<td class="center
<td>Sedikit lebih
</tr>
<tr>
<td class="center
<td>Jelas lebih
</tr>
<tr>
<td class="center
<td>Jelas hingga
</tr>
<tr>
<td class="center
<td>Sangat jelas lebih
</tr>
<tr>
<td class="center
<td>Sangat jelas
</tr>
<tr>
<td class="center
<td>Mutlak lebih
</tr>
</tbody>
</table>
</div>

```

</div>
</div>
</div>



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```

Cetak.php
<?php
include 'functions.php';
?>
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="utf-8">
    <title>Laporan</title>
    <style>
        @page { margin: 0 }
        body { margin: 0 }
        .sheet {
            margin: 0;
            overflow: visible;
            height: auto !important;
            position: relative;
            box-sizing: border-box;
            page-break-after: always;
        }

    /** Paper sizes */
    body.A3 .sheet { width: 297mm; height: 419mm }
    body.A3.landscape .sheet { width: 420mm; height: 296mm }
    body.A4 .sheet { width: 210mm; height: 296mm }
    body.A4.landscape .sheet { width: 297mm; height: 209mm }
    body.A5 .sheet { width: 148mm; height: 209mm }
    body.A5.landscape .sheet { width: 210mm; height: 147mm }
    body.letter .sheet { width: 216mm; height: 279mm }
    body.letter.landscape .sheet { width: 280mm; height: 215mm }
    body.legal .sheet { width: 216mm; height: 356mm }
    body.legal.landscape .sheet { width: 357mm; height: 215mm }

    /** Padding area */
    .sheet.padding-10mm { padding: 10mm }
    .sheet.padding-15mm { padding: 15mm }
    .sheet.padding-20mm { padding: 20mm }
    .sheet.padding-25mm { padding: 25mm }

    /** For screen preview */
    @media screen {
        body { background: #e0e0e0 }
        .sheet {
            background: white;
            box-shadow: 0 .5mm 2mm rgba(0,0,0,.3);
            margin: 5mm auto;
        }
    }

```

```

}

/** Fix for Chrome issue #273306 */
@media print {
    body.A3.landscape { width: 420mm }
    body.A3, body.A4.landscape { width: 297mm }
    body.A4, body.A5.landscape { width: 210mm }
    body.A5                { width: 148mm }
    body.letter, body.legal { width: 216mm }
    body.letter.landscape   { width: 280mm }
    body.legal.landscape    { width: 357mm }
}

@page {
    size: A4
}

h1 {
    font-weight: bold;
    font-size: 20pt;
    text-align: center;
}

table {
    border-collapse: collapse;
    width: 100%;
}

.table th {
    padding: 8px 8px;
    border: 1px solid #000000 !important;;
    text-align: center;
    background-color: #ffc107 !important;;
}

.table td {
    padding: 3px 3px;
    border: 1px solid #000000 !important;;
}

}

.text-center {
    text-align: center;
}

```

```
@media print {

.no-print,
.no-print * {
    display: none !important;
}
}

</style>
</head>

<body class="A4">
    <section class="sheet padding-10mm">
        <table width="1064" height="85" border="0">
            <tr>
                <td width="100"></td>
                <td width="899"><center>
                    <h2> <strong>PT. INDAKO TRADING
COY <br> KOTA MEDAN </strong></h2>
                    <p><i><strong>Jalan Pemuda No 18 D-H
Medan, Medan Maimun, Sumatera Utara</strong></i></p>
                </center>
            </td>
        </tr>
    </table>
    <hr>
    <p><b>LAPORAN DATA </b></p>
    <table class="table">
        <thead>
            <tr>
                <th>Kode</th>
                <th>Nama</th>
                <th>Solusi Ideal</th>
                <th>Rank</th>
            </tr>
        </thead>
        <?php
            $rows = $db->get_results("SELECT * FROM tb_alternatif
ORDER BY total DESC ");
            $no=0;
            foreach($rows as $row): ?>
                <tr>
                    <td ><?=$row->kode_alternatif?></td>
                    <td ><?=$row->nama_alternatif?></td>
                    <td ><?=$row->total?></td>
                    <td ><?=$no?></td>
                </tr>
            </foreach>
        </table>
    </body>
</html>
```

```

        </tr>

        <?php endforeach; ?>
    </table>
    <br><br>

    <table width="100%" >
        <tr>
            <td width="75%"></td>
            <td ><label align="left" style="font-size:
14px"><b>Medan <?php
            date_default_timezone_set('Asia/Jakarta');
            echo date('d F Y'); ?></b></label><br>
            <label style="font-size:
14px;"><b>Mengetahui</b></label><br><br><br><br><br>
            <center><label style="font-size:
14px"><b>.....</b></label></center></td>

        </tr>
    </table>

</section>

</body>

</html>

```

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```
Config.php
<?php
//include dirname(__FILE__) . '/../config.php';

$config["server"]="localhost";
$config["username"]="root";
$config["password"]="";
$config["database_name"]="db_ahp_smart";
```



Crips.php

```

<div class="row">
  <div class="col-xs-12">
    <div class="box">
      <div class="box-header">
        <h4 class="card-title">Tabel Sub Kriteria</h4>
        <form class="form-inline col-md-6">
          <input type="hidden" name="m" value="crips" />
          <div class="form-group">
            <select class="form-control" name="kode_kriteria"
onchange="this.form.submit()" style="color: green;">
              <option value="">Pilih kriteria</option>
              <?=get_kriteria_option($_GET['kode_kriteria'])?>
            </select>
          </div>
          <div class="form-group col-md-4 align-self-end">
            <a class="btn btn-primary"
href="?m=crips_tambah&kode_kriteria=<?=@$_GET['kode_kriteria']?>">Tamba
h</a>
          </div>
        </form>
      </div>
      <div class="box-body">
        <table id="example2" class="table table-bordered table-hover">
          <thead>
            <tr>
              <th>No</th>
              <th>Nama Kriteria</th>
              <th>Nama crips</th>
              <th>Nilai</th>
              <th>Aksi</th>
            </tr>
          </thead>
          <tbody>
            <?php
              @$q = esc_field($_GET['q']);
              $mulyono = @$_GET['kode_kriteria'];

              $rows = $db->get_results("SELECT c.kode_crips, c.kode_kriteria,
k.nama_kriteria, c.nama_crips, c.nilai FROM tb_crips c INNER JOIN tb_kriteria
k ON k.kode_kriteria=c.kode_kriteria WHERE c.kode_kriteria='$mulyono'
ORDER BY k.nama_kriteria, nilai");
              $no=1;
              foreach($rows as $row):?>
                <tr>
                  <td><?=$no++?></td>
                  <td><?=$row->nama_kriteria?></td>

```

```

        <td ><?=$row->nama_crips?></td>
        <td ><?=$row->nilai?></td>
        <td >
            <a class="btn btn-warning"
href="?m=crisp_ubah&ID=<?=$row->kode_crips?>&kode_kriteria=<?=$row-
>kode_kriteria?>">Ubah</a>
            <a class="btn btn-danger"
href="aksi.php?act=crisp_hapus&ID=<?=$row-
>kode_crips?>&kode_kriteria=<?=$row->kode_kriteria?>" onclick="return
confirm('Hapus data?')">Hapus</a>
        </td>
    </tr>
<?php endforeach;
?>
</tbody>
</table>
</div>
</div>
</div>
</div>
</div>
</div>
</div>

```

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Crips_tambah.php

```
<div class="row">
  <div class="col-md-6">
    <div class="box box-info">
      <div class="box-header">
        <i class="fa fa-marker"></i>
        <h3 class="box-title">Tambah Data </h3>
      </div>
      <?php if ($_POST) include 'aksi.php' ?>
      <div class="box-body">
        <form method="post"
action="?m=crisp_tambah&kode_kriteria=<?=$_GET['kode_kriteria']?>">
          <div class="form-group">
            <label>Kriteria</label>
            <select class="form-control"
name="kode_kriteria"><?=get_kriteria_option($_GET['kode_kriteria'])?></select>
            </div>
            <div class="form-group">
              <label>Nama</label>
              <input class="form-control" type="text" name="nama_crip"
value="<?=@$_POST['nama_crip']?>" />
            </div>
            <div class="form-group">
              <label>Nilai</label>
              <input class="form-control" type="text" name="nilai"
value="<?=@$_POST['nilai']?>" />
            </div>
            <button class="btn btn-primary"><span class="glyphicon glyphicon-
save"></span> Simpan</button>
            <a class="btn btn-danger"
href="?m=crisp&kode_kriteria=<?=$_GET['kode_kriteria']?>"><span
class="glyphicon glyphicon-arrow-left"></span> Kembali</a>
          </form>
        </div>
      </div>
    </div>
  </div>
```

Crips_ubah.php

```
<?php
    $row = $db->get_row("SELECT * FROM tb_crips WHERE
kode_crips='$_GET[ID]');
?>
<div class="row">
    <div class="col-md-6">
        <div class="box box-info">
            <div class="box-header">
                <i class="fa fa-marker"></i>
                <h3 class="box-title">Tambah Data </h3>
            </div>
            <?php if ($_POST) include 'aksi.php' ?>
            <div class="box-body">
                <form method="post" action="?m=crips_ubah&ID=<?=$row-
>kode_crips?>&kode_kriteria=<?=$row->kode_kriteria?>">
                    <div class="form-group">
                        <label>Kriteria</label>
                        <select disabled="" class="form-control"
name="kode_kriteria"><?=get_kriteria_option($row->kode_kriteria)?></select>
                    </div>
                    <div class="form-group">
                        <label>Nama</label>
                        <input class="form-control" type="text" name="nama_crips"
value="<?=$row->nama_crips?>" />
                    </div>
                    <div class="form-group">
                        <label>Nilai</label>
                        <input class="form-control" type="text" name="nilai"
value="<?=$row->nilai?>" />
                    </div>
                    <button class="btn btn-primary"><span class="glyphicon glyphicon-
save"></span> Simpan</button>
                    <a class="btn btn-danger"
href="?m=crips&kode_kriteria=<?=$_GET['kode_kriteria']?>"><span
class="glyphicon glyphicon-arrow-left"></span> Kembali</a>
                </form>
            </div>
        </div>
    </div>
</div>
```

```

Function.php
<?php
error_reporting(~E_NOTICE);
session_start();

DEFINE('ABSPATH', dirname(__FILE__) . '/');

include ABSPATH . 'config.php';
include ABSPATH . 'inc/db.php';
include ABSPATH . 'inc/general.php';
$db = new DB($config['server'], $config['username'], $config['password'],
$config['database_name']);

@$mod = $_GET['m'];
@$act = $_GET['act'];

$rows = $db->get_results("SELECT * from tb_alternatif");
foreach ($rows as $row) {
    $ALTERNATIF[$row->kode_alternatif] = $row->nama_alternatif;
}

$rows = $db->get_results("SELECT * FROM tb_kriteria ORDER BY
kode_kriteria");
foreach ($rows as $row) {
    $KRITERIA[$row->kode_kriteria] = $row;
}
//mengatur hak akses dari admin dan user
function is_able($mod)
{
    if (!$_SESSION['level'])
        $_SESSION['level'] = 'guest';
    $role = array(
        'TU' => array(
            'user',
            'alternatif',
            'kriteria',
            'rel_alternatif',
            'hitung',
            'home',
        ),
        'KEPSEK' => array(
            'hitung',
        ),
    );
};

return in_array($mod, (array) $role[strtolower($_SESSION['level'])]);
}
//jika tidak mempunyai akses maka dihidden

```

```

function is_hidden($mod)
{
    return (is_able($mod)) ? " : 'hidden';
}
function kode_oto($field, $table, $prefix, $length)
{
    global $db;
    $svar = $db->get_var("SELECT $field FROM $table WHERE $field REGEXP
'{$prefix}[0-9]{{ $length}}' ORDER BY $field DESC");
    if ($svar) {
        return $prefix . substr(str_repeat('0', $length) . (substr($svar, -$length) + 1), -
$length);
    } else {
        return $prefix . str_repeat('0', $length - 1) . 1;
    }
}

function prioritas_oto($field, $table, $prefix, $length)
{
    global $db;
    $svar = $db->get_var("SELECT $field FROM $table WHERE $field REGEXP
'{$prefix}[0-9]{{ $length}}' ORDER BY $field DESC");
    if ($svar) {
        return $prefix . substr(str_repeat('0', $length) . (substr($svar, -$length) + 1), -
$length);
    } else {
        return $prefix . str_repeat('0', $length - 1) . 1;
    }
}

function set_value($key = null, $default = null)
{
    global $_POST;
    if (isset($_POST[$key]))
        return $_POST[$key];

    if (isset($_GET[$key]))
        return $_GET[$key];

    return $default;
}

function get_data()
{
    global $db;

    $rows = $db->get_results("SELECT r.kode_alternatif, r.kode_kriteria, c.nilai
FROM tb_rel_alternatif r LEFT JOIN tb_crips c ON c.kode_crips=r.kode_crips
ORDER BY kode_alternatif, kode_kriteria");

```

```

$data = array();
foreach ($rows as $row) {
    $data[$row->kode_alternatif][$row->kode_kriteria] = $row->nilai;
}
return $data;
}

function get_data_cb($data)
{
    global $KRITERIA;
    $sarr = array();
    foreach ($data as $key => $val) {
        foreach ($val as $k => $v) {
            $sarr[$key][$k] = $KRITERIA[$k]->atribut == 'benefit' ? $v : $v ;
        }
    }
    return $sarr;
}

function get_minmax($data_cb)
{
    $sarr = array();
    $sarr2 = array();
    foreach ($data_cb as $key => $val) {
        foreach ($val as $k => $v) {
            $sarr[$k][$key] = $v;
        }
    }
    foreach ($sarr as $key => $val) {
        $sarr2['max'][$key] = 5;
        $sarr2['min'][$key] = 3;
    }
    return $sarr2;
}

function get_nij($data, $minmax)
{
    $sarr = array();
    foreach ($data as $key => $val) {
        foreach ($val as $k => $v) {
            $sarr[$key][$k] = ($minmax['max'][$k] - $v) / ($minmax['max'][$k] -
            $minmax['min'][$k]);
        }
    }
    return $sarr;
}

function get_terbobot($data)

```

```

{
    global $KRITERIA;
    $arr = array();
    foreach ($data as $key => $val) {
        foreach ($val as $k => $v) {
            $arr[$key][$k] = $v * $KRITERIA[$k]->bobot;
        }
    }
    return $arr;
}

function get_utilitas_regret($terbobot)
{
    $arr = array();
    foreach ($terbobot as $key => $val) {
        $arr['s'][$key] = array_sum($val);
        $arr['r'][$key] = max($val);
    }
    return $arr;
}

function get_q($sr, $var)
{
    $arr = array();

    $s_plus = max($sr['s']);
    $s_min = min($sr['s']);

    $r_plus = max($sr['r']);
    $r_min = min($sr['r']);

    foreach ($var as $k => $v) {
        foreach ($sr['s'] as $key => $val) {
            $si = $sr['s'][$key];
            $ri = $sr['r'][$key];

            $xs = $s_plus == $s_min ? 0 : ($si - $s_min) / ($s_plus - $s_min);
            $xr = $r_plus == $r_min ? 0 : ($ri - $r_min) / ($r_plus - $r_min);
            $arr[$key][$k] = $v * $xs + (1 - $v) * $xr;
        }
    }

    return $arr;
}

function get_rank_q($q)

```

```

{
    $arr = array();

    foreach ($q as $key => $val) {
        foreach ($val as $k => $v) {
            $arr[$k][$key] = $v;
        }
    }

    $arr2 = array();
    foreach ($arr as $key => $val) {
        $arr2[$key] = get_rank($val);
    }

    $arr3 = array();
    foreach ($arr as $key => $val) {
        foreach ($val as $k => $v) {
            $arr3[$k][$key] = $arr2[$key][$k];
        }
    }
    //echo '<pre>' . print_r($arr3, 1) . '</pre>';
    return $arr3;
}

function get_rata($rank_q)
{
    $arr = array();
    foreach ($rank_q as $key => $val) {
        $arr[$key] = array_sum($val) / count($val);
    }
    return $arr;
    //echo '<pre>' . print_r($rank_q, 1) . '</pre>';
}

function get_rank($array)
{
    $data = $array;
    asort($data);
    $no = 1;
    $new = array();
    foreach ($data as $key => $value) {
        $new[$key] = $no++;
    }
    return $new;
}

function get_atribut_option($selected = "")
{

```

```

$a = null;
$atribut = array('benefit' => 'Benefit', 'cost' => 'Cost');
foreach ($atribut as $key => $value) {
    if ($selected == $key)
        $a .= "<option value='$key' selected>$value</option>";
    else
        $a .= "<option value='$key'>$value</option>";
}
return $a;
}

function get_kriteria_option($selected = 0){
    global $KRITERIA;
    //print_r($KRITERIA);
    foreach($KRITERIA as $key => $value){
        if($key==$selected)
            $a.="<option value='$key' selected>$value->nama_kriteria</option>";
        else
            $a.="<option value='$key'>$value->nama_kriteria</option>";
    }
    return $a;
}

function get_analisa(){
    global $db;

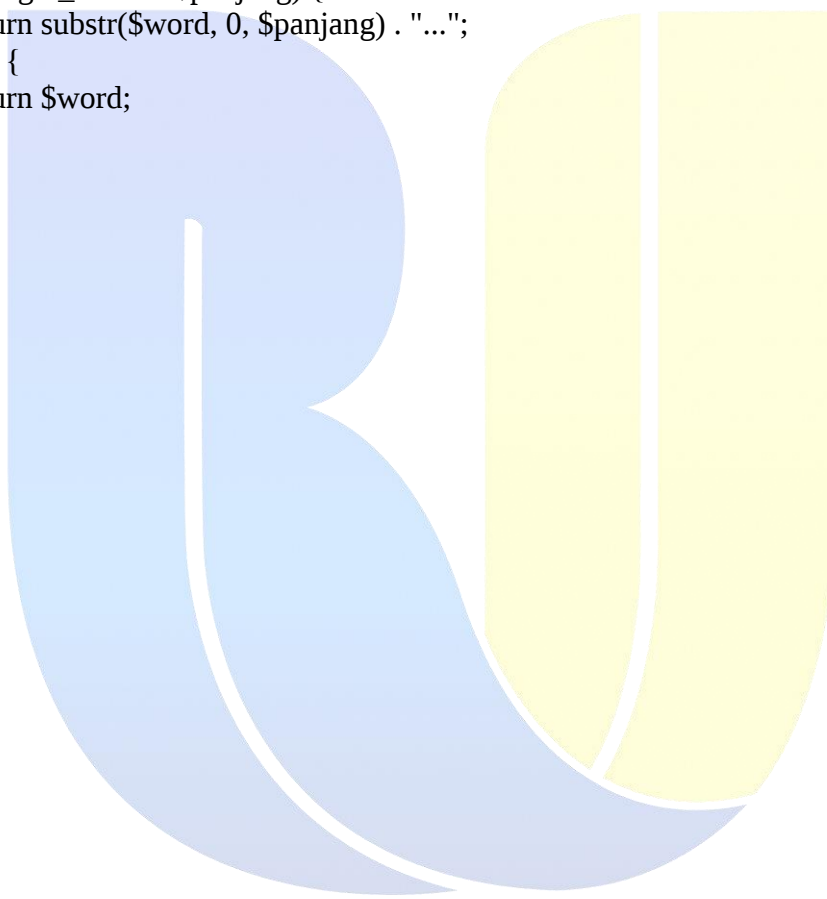
    $rows = $db->get_results("SELECT r.kode_alternatif, r.kode_kriteria,
c.nama_crips, c.kode_crips
FROM tb_rel_alternatif r LEFT JOIN tb_crips c ON c.kode_crips=r.kode_crips
ORDER BY kode_alternatif, kode_kriteria");

    $data = array();
    foreach($rows as $row){
        $data[$row->kode_alternatif][$row->kode_kriteria] = $row->nama_crips;
    }
    return $data;
}

function get_crips_option($kriteria, $selected = 0){
    global $db;
    $rows = $db->get_results("SELECT kode_crips, nilai, nama_crips FROM
tb_crips WHERE kode_kriteria='$kriteria' ORDER BY nilai ASC");
    foreach($rows as $row){
        if($row->kode_crips==$selected)
            $a.="<option value='$row->kode_crips' selected>$row-
>nama_crips</option>";
        else
            $a.="<option value='$row->kode_crips'>$row->nama_crips</option>";
    }
}

```

```
    }  
    return $a;  
}  
  
function batas_karakter($word, $panjang = 10)  
{  
    $lenght_word = strlen($word);  
    if ($lenght_word > $panjang) {  
        return substr($word, 0, $panjang) . "...";  
    } else {  
        return $word;  
    }  
}
```



UNIVERSITAS
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Fungsi.php

```
<?php
```

```
// mencari ID kriteria
```

```
// berdasarkan urutan ke berapa (C1, C2, C3)
```

```
function getKriteriaID($no_urut) {
```

```
    include('koneksi.php');
```

```
    $query = "SELECT id FROM tb_kriteria ORDER BY id";
```

```
    $result = mysqli_query($koneksi, $query);
```

```
    while ($row = mysqli_fetch_array($result)) {
```

```
        $listID[] = $row['id'];
```

```
    }
```

```
    return $listID[($no_urut)];
```

```
}
```

```
// mencari nama kriteria
```

```
function getKriteriaNama($no_urut) {
```

```
    include('koneksi.php');
```

```
    $query = "SELECT nama_kriteria FROM tb_kriteria ORDER BY id";
```

```
    $result = mysqli_query($koneksi, $query);
```

```
    while ($row = mysqli_fetch_array($result)) {
```

```
        $nama[] = $row['nama_kriteria'];
```

```
    }
```

```
    return $nama[($no_urut)];
```

```
}
```

```
// mencari priority vector kriteria
```

```
function getKriteriaPV($id_kriteria) {
```

```
    include('koneksi.php');
```

```
    $query = "SELECT nilai FROM pv_kriteria WHERE  
id_kriteria=$id_kriteria";
```

```
    $result = mysqli_query($koneksi, $query);
```

```
    while ($row = mysqli_fetch_array($result)) {
```

```
        $pv = $row['nilai'];
```

```
    }
```

```
    return $pv;
```

```
}
```

```
// mencari jumlah kriteria
```

```
function getJumlahKriteria() {
```

```
    include('koneksi.php');
```

```
    $query = "SELECT count(*) FROM tb_kriteria";
```

```

$result = mysqli_query($koneksi, $query);
while ($row = mysqli_fetch_array($result)) {
    $jmlData = $row[0];
}

return $jmlData;
}

function tambahData($tabel,$nama) {
    include('koneksi.php');

    $query      = "INSERT INTO $tabel (nama) VALUES ('$nama')";
    $tambah     = mysqli_query($koneksi, $query);

    if (!$tambah) {
        echo "Gagal mmenambah data". $tabel;
        exit();
    }
}

// hapus kriteria
function deleteKriteria($id) {
    include('koneksi.php');

    // hapus record dari tabel kriteria
    $query      = "DELETE FROM kriteria WHERE id=$id";
    mysqli_query($koneksi, $query);

    // hapus record dari tabel pv_kriteria
    $query      = "DELETE FROM pv_kriteria WHERE id_kriteria=$id";
    mysqli_query($koneksi, $query);

    // hapus record dari tabel pv_alternatif
    $query      = "DELETE FROM pv_alternatif WHERE
id_kriteria=$id";
    mysqli_query($koneksi, $query);

    $query      = "DELETE FROM perbandingan_kriteria WHERE
kriteria1=$id OR kriteria2=$id";
    mysqli_query($koneksi, $query);

    $query      = "DELETE FROM perbandingan_alternatif WHERE
pembanding=$id";
    mysqli_query($koneksi, $query);
}

```

```

// memasukkan nilai priority vektor kriteria
function inputKriteriaPV ($id_kriteria,$pv) {
    include ('koneksi.php');

    $query = "SELECT * FROM pv_kriteria WHERE
id_kriteria=$id_kriteria";
    $result = mysqli_query($koneksi, $query);

    if (!$result) {
        echo "Error !!!";
        exit();
    }

    // jika result kosong maka masukkan data baru
    // jika telah ada maka diupdate
    if (mysqli_num_rows($result)==0) {
        $pv = round($pv,3);
        $query = "INSERT INTO pv_kriteria (id_kriteria, nilai) VALUES
($id_kriteria, $pv)";
        $query2 = "UPDATE tb_kriteria SET bobot=$pv WHERE
id=$id_kriteria";

    } else {
        $pv = round($pv,3);
        $query = "UPDATE pv_kriteria SET nilai=$pv WHERE
id_kriteria=$id_kriteria";
        $query2 = "UPDATE tb_kriteria SET bobot=$pv WHERE
id=$id_kriteria";

    }

    $result2 = mysqli_query($koneksi, $query2);
    $result = mysqli_query($koneksi, $query);
    if (!$result) {
        echo "Gagal memasukkan / update nilai priority vector kriteria";
        exit();
    }
}

// memasukkan bobot nilai perbandingan kriteria
function inputDataPerbandinganKriteria($kriteria1,$kriteria2,$nilai) {
    include('koneksi.php');

    $id_kriteria1 = getKriteriaID($kriteria1);
    $id_kriteria2 = getKriteriaID($kriteria2);

```

```

$query = "SELECT * FROM perbandingan_kriteria WHERE kriteria1 =
$id_kriteria1 AND kriteria2 = $id_kriteria2";
$result = mysqli_query($koneksi, $query);

if (!$result) {
    echo "Error !!!";
    exit();
}

// jika result kosong maka masukkan data baru
// jika telah ada maka diupdate
if (mysqli_num_rows($result)==0) {
    $query = "INSERT INTO perbandingan_kriteria
(kriteria1,kriteria2,nilai) VALUES ($id_kriteria1,$id_kriteria2,$nilai)";
} else {
    $query = "UPDATE perbandingan_kriteria SET nilai=$nilai
WHERE kriteria1=$id_kriteria1 AND kriteria2=$id_kriteria2";
}

$result = mysqli_query($koneksi, $query);
if (!$result) {
    echo "Gagal memasukkan data perbandingan";
    exit();
}
}

// mencari nilai bobot perbandingan kriteria
function getNilaiPerbandinganKriteria($kriteria1,$kriteria2) {
    include('koneksi.php');

    $id_kriteria1 = getKriteriaID($kriteria1);
    $id_kriteria2 = getKriteriaID($kriteria2);

    $query = "SELECT nilai FROM perbandingan_kriteria WHERE kriteria1
= $id_kriteria1 AND kriteria2 = $id_kriteria2";
    $result = mysqli_query($koneksi, $query);

    if (!$result) {
        echo "Error !!!";
        exit();
    }

    if (mysqli_num_rows($result)==0) {
        $nilai = 1;
    } else {

```

```

        while ($row = mysqli_fetch_array($result)) {
            $nilai = $row['nilai'];
        }

    return $nilai;
}

// menampilkan nilai IR
function getNilaiIR($jmlKriteria) {
    include('koneksi.php');
    $query = "SELECT nilai FROM ir WHERE jumlah=$jmlKriteria";
    $result = mysqli_query($koneksi, $query);
    while ($row = mysqli_fetch_array($result)) {
        $nilaiIR = $row['nilai'];
    }

    return $nilaiIR;
}

// mencari Principe Eigen Vector ( $\lambda$  maks)
function getEigenVector($matrik_a,$matrik_b,$n) {
    $eigenvektor = 0;
    for ($i=0; $i <= ($n-1) ; $i++) {
        $eigenvektor += ($matrik_a[$i] * (($matrik_b[$i]) / $n));
    }

    return $eigenvektor;
}

// mencari Cons Index
function getConsIndex($matrik_a,$matrik_b,$n) {
    $eigenvektor = getEigenVector($matrik_a,$matrik_b,$n);
    $consindex = ($eigenvektor - $n)/($n-1);

    return $consindex;
}

// Mencari Consistency Ratio
function getConsRatio($matrik_a,$matrik_b,$n) {
    $consindex = getConsIndex($matrik_a,$matrik_b,$n);
    $consratio = $consindex / getNilaiIR($n);

    return $consratio;
}

```

```

function showTabelPerbandingan2() {
    include('koneksi.php');

    $n = getJumlahKriteria();

    $query = "SELECT nama_kriteria FROM tb_kriteria ORDER BY id";
    $result = mysqli_query($koneksi, $query);
    if (!$result) {
        echo "Error koneksi database!!!";
        exit();
    }

    // buat list nama pilihan
    while ($row = mysqli_fetch_array($result)) {
        $pilihan[] = $row['nama_kriteria'];
    }

    // tampilkan tabel
    ?>

    <form class="ui form" action="?m=proses" method="post">
        <table class="ui celled selectable collapsing table">
            <thead>
                <tr>
                    <th colspan="2">pilih yang lebih
                    penting</th>
                    <th>nilai perbandingan</th>
                </tr>
            </thead>
            <tbody>

                <?php
                //inisialisasi
                $urut = 0;
                for ($x=0; $x <= ($n - 2); $x++) {
                    for ($y=($x+1); $y <= ($n - 1) ; $y++) {

                        $urut++;

                        ?>
                        <tr>

                            <td>

```

```

checkbox pull-left">
</div>
<div class="i-
<input
name="pilih<?php echo $urut?>" value="1" checked="" class="i-checks"
type="radio">
<label><?php echo $pilihan[$x]; ?></label>
</div>
</div>
</td>
<td>
<div class="bt-df-
<div class="i-
<input
name="pilih<?php echo $urut?>" value="2" class="i-checks" type="radio">
<label><?php echo $pilihan[$y]; ?></label>
</div>
</div>
</td>
<td width="10%">
<div class="field">
<?php
$nilai
= getNilaiPerbandinganKriteria($x,$y);
?>
<input
type="number" min="0" max="9" class="form-control" name="bobot<?php echo
$urut?>" value="<?php echo $nilai?>" required>
</div>
</td>
</tr>
<?php
}
}
?>
</tbody>

```

```
</table>

<br><br><input class="btn btn-block btn-primary" type="submit"
name="submit" value="SUBMIT">
</form>

<?php
}
?>
```



Hitung.php

```

<div class="row">
  <div class="col-md-12">
    <div class="box">
      <div class="box-header bg-gradient-faded-secondary">
        <h4 class="box-title text-white">Hasil Analisa</h4>
      </div>
      <div class="box-body">
        <div class="table-responsive">
          <table class="table table-bordered table-hover">
            <thead>
              <tr>
                <th>Kode</th>
                <th>Nama</th>
                <?php
                  $data = get_data();
                  foreach ($KRITERIA as $key => $val) : ?>
                    <th><?= $val->kode_kriteria ?></th>
                <?php endforeach; ?>
              </tr>
            </thead>
            <?php
              foreach ($data as $key => $val) : ?>
                <tr>
                  <td><?= $key ?></td>
                  <td><?= $ALTERNATIF[$key] ?></td>
                  <?php foreach ($val as $k => $v) : ?>
                    <td><?= round($v, 3) ?></td>
                  <?php endforeach; ?>
                </tr>
              <?php endforeach; ?>
            </table>
          </div>
        </div>
      </div>
    </div>
  </div>
  <div class="col-md-12 mt-4">
    <div class="box">
      <div class="box-header bg-gradient-faded-success">
        <h4 class="box-title text-white">Konversi Nilai MIN MAX</h4>
      </div>
      <div class="box-body">
        <div class="table-responsive">
          <table class="table table-bordered table-hover">

```

```

<thead>
  <tr>
    <th>Kode</th>
    <th>Nama</th>
    <?php
      $data_cb = get_data_cb($data);
      $minmax = get_minmax($data_cb);
      foreach ($KRITERIA as $key => $val) : ?>
        <th><?=$val->kode_kriteria ?></th>
      <?php endforeach; ?>
    </tr>
  </thead>
  <?php foreach ($data_cb as $key => $val) : ?>
    <tr>
      <td><?=$key ?></td>
      <td><?=$ALTERNATIF[$key] ?></td>
      <?php foreach ($val as $k => $v) : ?>
        <td><?=$round($v, 3) ?></td>
      <?php endforeach; ?>
    </tr>
  <?php endforeach; ?>
<tfoot>
  <?php
    $skriteria = array();

    $rowskriteria = $db->get_results("SELECT * FROM
tb_kriteria ORDER BY kode_kriteria");
    foreach ($rowskriteria as $rowk) {
      $skriteria[$rowk->kode_kriteria] = array($rowk-
>nama_kriteria,$rowk->atribut,$rowk->bobot);
    }
    $salternatif = array();
    $rowalternatif = $db->get_results("SELECT * from
tb_alternatif ORDER BY kode_alternatif");
    foreach ($rowalternatif as $rowal) {
      $salternatif[$rowal->kode_alternatif] = $rowal-
>nama_alternatif;
    }

    $rows = $db->get_results("SELECT r.kode_alternatif,
r.kode_kriteria, c.nilai
FROM tb_rel_alternatif r LEFT JOIN tb_crips c ON
c.kode_crips=r.kode_crips
ORDER BY kode_alternatif, kode_kriteria");
    $sample = array();
    foreach ($rows as $row) {
      $sample[$row->kode_alternatif][$row->kode_kriteria] =
$row->nilai;

```

```

    }

    $stranpose_d=array();
    foreach($alternatif as $a=>$v){
        foreach($kriteria as $k=>$v_k){
            if(!isset($stranpose_d[$k]))$stranpose_d[$k]=array();
            $stranpose_d[$k][$a]=$sample[$a][$k];
        }
    }

    $c_max=array();
    $c_min=array();

    foreach($kriteria as $k=>$v){
        $c_max[$k]=max($stranpose_d[$k]);
        $c_min[$k]=min($stranpose_d[$k]);
    }

    ?>

    <tr>
        <td colspan="2" >Max</td>
        <?php foreach ($c_max as $key ) : ?>
            <td ><?= $key ?></td>
        <?php endforeach ?>
    </tr>
    <tr>
        <td colspan="2" >Min</td>
        <?php foreach ($c_min as $key ) : ?>
            <td ><?= $key ?></td>
        <?php endforeach ?>
    </tr>
</tfoot>
</table>
</div>
</div>
</div>
</div>

<div class="col-md-6 mt-4">
    <div class="box">
        <div class="box-header bg-gradient-faded-info">
            <h4 class="box-title text-white">Nilai Utility</h4>
        </div>
        <div class="box-body">
            <div class="table-responsive">

```

```

<table class="table table-bordered table-hover">
<thead>
<tr>
<th>Kode</th>
<?php

foreach ($KRITERIA as $key => $val) : ?>
<th><? = $key ?></th>
<?php endforeach; ?>
</tr>
</thead>

<?php
$U=array();
foreach($kriteria as $k=>$v){
    foreach($alternatif as $a=>$a_v){
        if(!isset($U[$a])) $U[$a]=array();
//-- perhitungan nilai utility untuk benefit criteria
        $U[$a][$k]=($sample[$a][$k]-
$c_min[$k])/($c_max[$k]-$c_min[$k]);
    }
}
?>

<?php foreach ($U as $keyR => $valR) : ?>
<tr>
<td ><? = $keyR ?></td>
<?php foreach ($valR as $kkk => $vvv) : ?>
<td ><? = round($vvv, 3) ?></td>
<?php endforeach ?>
</tr>
<?php endforeach ?>
</table>
</div>
</div>
</div>
</div>
<div class="col-md-6 mt-4">
<div class="box">
<div class="box-header bg-gradient-warning">
<h4 class="box-title text-white">Pembobotan AHP</h4>
</div>
<div class="box-body">
<div class="table-responsive">
<table class="table table-bordered ">
<thead style="text-align: center;">

```

```

        <tr>
            <th>Kode</th>
            <th>Nama Kriteria</th>
            <th>Bobot</th>

        </tr>
    </thead>
    <?php
        $rows = $db->get_results("SELECT * FROM tb_kriteria
ORDER BY kode_kriteria ASC");
        $no=0;
        foreach($rows as $row):?>
            <tr>
                <td ><?=$row->kode_kriteria?></td>
                <td ><?=$row->nama_kriteria,10)?></td>
                <td ><?=$row->bobot?></td>
            </tr>

        <?php endforeach; ?>
    </table>
</div>

</div>
</div>

</div>

<div class="col-md-12 mt-4">
    <div class="box">
        <div class="box-header bg-gradient-faded-danger">
            <h4 class="box-title text-white "> Bobo Ternormalisasi</h4>
        </div>
        <div class="box-body">
            <div class="table-responsive">
                <table class="table table-bordered table-hover">
                    <thead>
                        <tr>
                            <th>Kode</th>
                            <?php
                                foreach ($KRITERIA as $key => $val) : ?>
                                    <th><?=$key ?></th>
                                <?php endforeach; ?>
                            <th>Total</th>

                        </tr>
                    </thead>

```

```

<?php
$bobot=array();
foreach($kriteria as $k=> $vk){
    $bobot[$k]=$vk[2];
}

$jml_bobot=1;
$w=array();
foreach($bobot as $k=> $b){
    $w[$k]=$b;
}

$V=array();
$M=array();

//-- melakukan iterasi utk setiap alternatif
foreach($U as $a => $a_u){
    $V[$a]=0;
    $M[$a]=0;

    //-- perhitungan nilai Preferensi V untuk tiap-tiap kriteria
    echo " <tr><td>". $a."</td>";
    foreach($a_u as $k => $u){
        $V[$a]+=$u*$w[$k];

        echo "

        <td>". round($M[$a]=$u*$w[$k],2)."</td>";

    }

    echo "<td><b>".round($V[$a],2)."</b></td>
    </tr>";
    $total = round($V[$a],2);

    $sdb->query("UPDATE tb_alternatif SET total='$total'
    WHERE kode_alternatif='$a'");
}
?>
</table>
</div>
</div>
</div>
</div>

```

```

<div class="col-md-7 mt-4">
  <div class="box">
    <div class="box-header bg-gradient-primary">
      <h4 class="box-title text-white">Perankingan</h4>
    </div>
    <div class="box-body">
      <div class="table-responsive">
        <table class="table table-bordered ">
          <thead style="text-align: center;">
            <tr>
              <th>Kode</th>
              <th>Nama Alternatif</th>
              <th>Total</th>
              <th>Rank</th>
              <th>Keputusan</th>
            </tr>
          </thead>
          <?php
            $rows = $db->get_results("SELECT * FROM tb_alternatif
ORDER BY total DESC");
            $no=0;
            foreach($rows as $row):?>
              <tr>
                <td ><?=$row->kode_alternatif?></td>
                <td ><?=$row->nama_alternatif?></td>
                <td ><?=round($row->total,2)?></td>
                <td ><?=$no ?></td>
                <td >
                  <?php
                    if ($no >= 1 && $no <= 3){
                      echo "Layak";
                    } else {
                      echo "Tidak Layak";
                    }
                  ?>
                </td>
              </tr>

              <?php endforeach; ?>
            </table>
          </div><br>
          <div class="panel-body">
            <div class="form-group">
              <a class="btn btn-danger" type="hidden" target="_blank"
href="cetak.php">Cetak PDF</a>

```

```

        </div>
    </div>
</div>
</div>

</div>
<div class="col-md-5 mt-4">
    <div class="box">
        <div class="box-header bg-gradient-primary">
            <h4 class="box-title text-white">Grafik Penilaian</h4>
        </div>
        <div class="box-body">
            <div id="container" style="min-width: 200px; height: 400px;
margin: 0 auto"></div>
            <script src="dist/chart/js/jquery-1.9.1.min.js"
type="text/javascript"></script>
            <script src="dist/chart/js/highcharts.js"
type="text/javascript"></script>
            <script src="dist/chart/js/exporting.js"
type="text/javascript"></script>
            <script type="text/javascript">
var chart1; // globally available
$(document).ready(function() {
    chart1 = new Highcharts.Chart({
        chart: {
            renderTo: 'container',
            type: 'column'
        },
        title: {
            text: 'Data Penilaian Semua Alternatif '
        },
        xAxis: {
            categories: ['Alternatif'],

        },
        yAxis: {
            title: {
                text: 'Jumlah Nilai'
            }
        },
        series:
        [

```

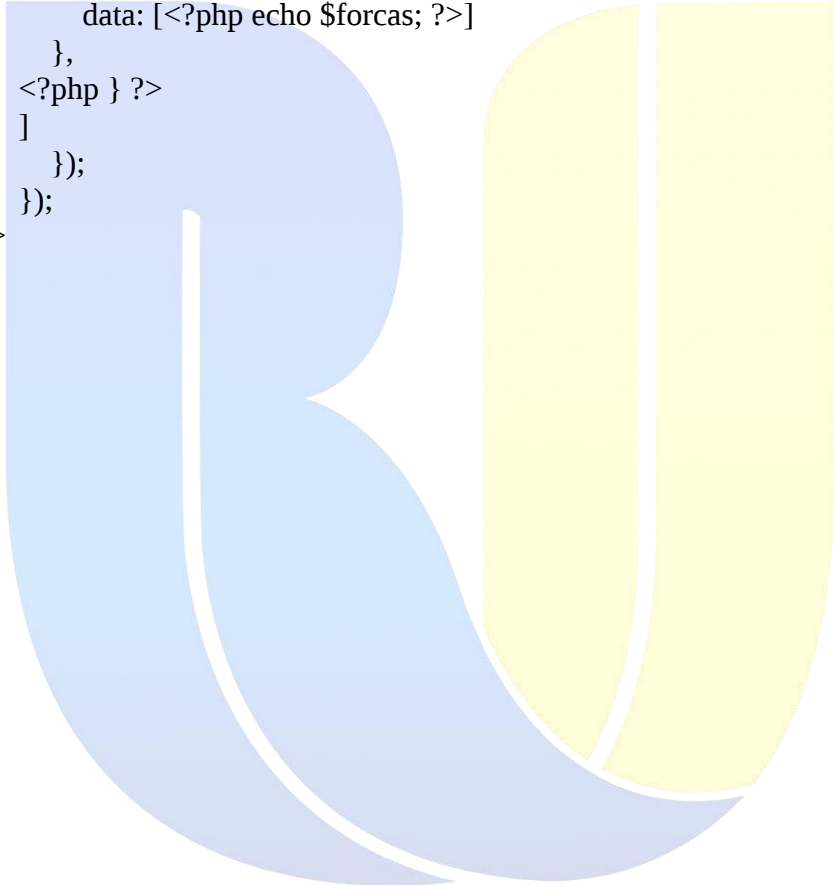
```

<?php
$rows = $db->get_results("SELECT * FROM tb_alternatif ORDER
BY total DESC"); // file untuk mengakses ke tabel database

foreach($rows as $row) {

```

```
$nama=$row->nama_alternatif;  
$forcas=$row->total;  
  
?>  
{  
  name: '<?php echo $nama; ?>',  
  data: [<?php echo $forcas; ?>]  
},  
<?php } ?>  
]  
});  
});  
</script>  
</div>  
</div>  
</div>
```



UNIVERSITAS
ROYAL

Home.php

```

<div class="row">
  <div class="col-lg-3 col-xs-6">
    <!-- small box -->
    <div class="small-box bg-aqua">
      <div class="inner">
        <h3><?php
          $q = @$_GET['q'];

          $rows = $db->query("SELECT * FROM tb_alternatif
            WHERE kode_alternatif LIKE '%$q%' OR nama_alternatif LIKE
'%$q%'
            ORDER BY kode_alternatif");
          echo mysqli_num_rows($rows); ?></h3>
          <p>Alternatif</p>
        </div>
        <div class="icon">
          <i class="ion ion-bag"></i>
        </div>
        <a href="#" class="small-box-footer">More info <i class="fa fa-
arrow-circle-right"></i></a>
      </div>
    </div><!-- ./col -->

    <div class="col-lg-3 col-xs-6">
      <!-- small box -->
      <div class="small-box bg-green">
        <div class="inner">
          <h3> <?php
            $q = @$_GET['q'];

            $rows = $db->query("SELECT * FROM tb_kriteria
              WHERE kode_kriteria LIKE '%$q%' OR nama_kriteria LIKE
'%$q%'
              ORDER BY kode_kriteria");
            echo mysqli_num_rows($rows); ?><sup style="font-size:
20px"></sup></h3>
            <p>Kriteria</p>
          </div>
          <div class="icon">
            <i class="ion ion-stats-bars"></i>
          </div>
          <a href="#" class="small-box-footer">More info <i class="fa fa-
arrow-circle-right"></i></a>
        </div>
      </div><!-- ./col -->
    </div><!-- ./col -->
  </div>
</div>

```

```

<div class="small-box bg-yellow">
  <div class="inner">
    <h3> <?php
      $q = @$_GET['q'];

      $rows = $db->query("SELECT * FROM tb_crips
        WHERE kode_crips ORDER BY kode_kriteria");
      echo mysqli_num_rows($rows); ?></h3>
    <p>Sub Kriteria</p>
  </div>
  <div class="icon">
    <i class="ion ion-person-add"></i>
  </div>
  <a href="#" class="small-box-footer">More info <i class="fa fa-
arrow-circle-right"></i></a>
  </div>
</div><!-- ./col -->
<div class="col-lg-3 col-xs-6">
  <!-- small box -->
  <div class="small-box bg-red">
    <div class="inner"><h3>
      <span class="h4 font-weight-bold mb-0 tanggal-jam"
id="tanggal"><?php echo date('d M Y'); ?> </span>
      <span class="h4 font-weight-bold mb-0 tanggal-jam"
id="jam"></span></h3>
      <p>Jam dan Waktu</p>
    </div>
    <div class="icon">
      <i class="ion ion-clock"></i>
    </div>
    <a href="#" class="small-box-footer">More info <i class="fa fa-
arrow-circle-right"></i></a>
  </div>
</div><!-- ./col -->
</div><!-- /.row -->
<!-- Main row -->

<div class="row mt-4">
  <div class="col-lg-12 col-sm-12">
    <div class="z-index-2">
      <div id="container" style="min-width: 200px; height: 400px; margin:
0 auto"></div>
      <script src="dist/chart.js/jquery-1.9.1.min.js"
type="text/javascript"></script>

```

```

        <script src="dist/chart/js/highcharts.js"
type="text/javascript"></script>
        <script src="dist/chart/js/exporting.js"
type="text/javascript"></script>
        <script type="text/javascript">
var chart1; // globally available
$(document).ready(function() {
    chart1 = new Highcharts.Chart({
        chart: {
            renderTo: 'container',
            type: 'column'
        },
        title: {
            text: 'Grafik Keputusan '
        },
        xAxis: {
            categories: ['Alternatif'],

        },
        yAxis: {
            title: {
                text: 'Jumlah Nilai'
            }
        },
        series:
        [

            <?php
                $rows = $db->get_results("SELECT * FROM tb_alternatif ORDER
                BY total DESC"); // file untuk mengakses ke tabel database

                foreach($rows as $row) {

                    $nama=$row->nama_alternatif;
                    $forcas=$row->total;

                ?>
                {
                    name: '<?php echo $nama; ?>',
                    data: [<?php echo $forcas; ?>]
                },
                <?php } ?>
            ]
        });
    });
</script>
</div>

```

```
</div>
</div>

<script>
function checkTime(i) {
  if (i < 10) {
    i = "0" + i;
  }
  return i;
}
function startTime() {
  var today = new Date();
  var h = today.getHours();
  var m = today.getMinutes();
  var s = today.getSeconds();
  // add a zero in front of numbers<10
  m = checkTime(m);
  s = checkTime(s);
  document.getElementById('jam').innerHTML = h + ":" + m + ":" + s;
  t = setTimeout(function() {
    startTime()
  }, 500);
}
startTime();
</script>
```

UNIVERSITAS
ROYAL

```

Index.php
<?php
include('functions.php');
?>
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <title>SPK AHP-SMART</title>
  <!-- Tell the browser to be responsive to screen width -->
  <link rel="icon" type="image/png" href="img/logo/log.png">
  <meta content="width=device-width, initial-scale=1, maximum-scale=1, user-
scalable=no" name="viewport">
  <!-- Bootstrap 3.3.5 -->
  <link rel="stylesheet" href="bootstrap/css/bootstrap.min.css">
  <!-- Font Awesome -->
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/font-
awesome/4.4.0/css/font-awesome.min.css">
  <!-- Ionicons -->
  <link rel="stylesheet"
href="https://code.ionicframework.com/ionicons/2.0.1/css/ionicons.min.css">
  <!-- Theme style -->
  <link rel="stylesheet" href="dist/css/AdminLTE.min.css">
  <!-- AdminLTE Skins. Choose a skin from the css/skins
      folder instead of downloading all of them to reduce the load. -->
  <link rel="stylesheet" href="dist/css/skins/_all-skins.min.css">
  <!-- iCheck -->
  <link rel="stylesheet" href="plugins/iCheck/flat/blue.css">
  <!-- Morris chart -->
  <link rel="stylesheet" href="plugins/morris/morris.css">
  <!-- jvectormap -->
  <link rel="stylesheet" href="plugins/jvectormap/jquery-jvectormap-1.2.2.css">
  <!-- Date Picker -->
  <link rel="stylesheet" href="plugins/datepicker/datepicker3.css">
  <!-- Daterange picker -->
  <link rel="stylesheet" href="plugins/daterangepicker/daterangepicker-bs3.css">
  <!-- bootstrap wysihtml5 - text editor -->
  <link rel="stylesheet" href="plugins/bootstrap-wysihtml5/bootstrap3-
wysihtml5.min.css">

</head>
<body class="hold-transition skin-red-light sidebar-mini">
  <div class="wrapper">

    <header class="main-header">
      <!-- Logo -->
      <a href="#" class="logo">

```

```

<!-- mini logo for sidebar mini 50x50 pixels -->
<span class="logo-mini"><b>S</b>PK</span>
<!-- logo for regular state and mobile devices -->
<span class="logo-lg"><b>SPK </b>AHP-SMART</span>
</a>
<!-- Header Navbar: style can be found in header.less -->
<nav class="navbar navbar-static-top" role="navigation">
  <!-- Sidebar toggle button-->
  <a href="#" class="sidebar-toggle" data-toggle="offcanvas"
role="button">
    <span class="sr-only">Toggle navigation</span>
  </a>
  <div class="navbar-custom-menu">
    <ul class="nav navbar-nav">
      <?php if(@$_SESSION['login']):?>

        <li class="dropdown user user-menu">

          <a href="#" class="dropdown-toggle" data-toggle="dropdown">
            

            <span class="hidden-xs"><?=$_SESSION['level']?></span>
          </a>
          <ul class="dropdown-menu">
            <!-- User image -->
            <li class="user-header">
              

              <p>
                <?=@$_SESSION['nama']?>
                <small>SPK AHP SMART</small>
              </p>
            </li>

            <li class="user-footer">
              <div class="pull-right">
                <a href="aksi.php?act=logout" class="btn btn-default btn-
flat">Logout</a>
              </div>
            </li>
          </ul>
        </li>
      <?php else:?>
      <li class="dropdown user user-menu">

        <a href="login.php" >
          <span class="fa fa-user"> Login</span>
        </a>

```

```

        </li>
    <?php endif?>

    <!-- Control Sidebar Toggle Button -->

    </ul>
</div>
</nav>
</header>
<!-- Left side column. contains the logo and sidebar -->
<aside class="main-sidebar">
    <!-- sidebar: style can be found in sidebar.less -->
    <section class="sidebar">
        <!-- Sidebar user panel -->
        <div class="user-panel">
            <div class="pull-left image">
                
            </div>
            <?php if(@$_SESSION['login']):?>

            <div class="pull-left info">
                <p><?=@$_SESSION['nama']?></p>
                <a href="#"><i class="fa fa-circle text-success"></i> Online</a>
            </div>
            <?php else:?>
            <div class="pull-left info">
                <p>Default</p>
                <a href="#"><i class="fa fa-circle text-danger"></i> Offline</a>
            </div>
            <?php endif?>

        </div>
        <!-- search form -->
        <form action="#" method="get" class="sidebar-form">
            <div class="input-group">
                <input type="text" name="q" class="form-control"
placeholder="Search...">
                <span class="input-group-btn">
                    <button type="submit" name="search" id="search-btn" class="btn btn-
flat"><i class="fa fa-search"></i></button>
                </span>
            </div>
        </form>
        <!-- /.search form -->
        <!-- sidebar menu: : style can be found in sidebar.less -->
        <ul class="sidebar-menu">

```

```

<li class="header">MAIN NAVIGATION</li>
<li><a href=""?> <i class="fa fa-dashboard"></i>
<span>Dashboard</span></a></li>

<?php if(@$_SESSION['level'] == 'Admin') { ?>
<li>
<a href="?m=alternatif">
<i class="fa fa-users"></i> <span>Data Alternatif</span>
</a>
</li>
<li>
<a href="?m=kriteria">
<i class="fa fa-th"></i> <span>Data Kriteria</span>
</a>
</li>
<li>
<a href="?m=bobot_kriteria">
<i class="fa fa-th"></i> <span>Perbandingan Kriteria </span>
</a>
</li>
<li>
<a href="?m=crisp">
<i class="fa fa-list"></i> <span>Data Subkriteria</span>
</a>
</li>

<li>
<a href="?m=hitung">
<i class="fa fa-bar-chart"></i> <span>Proses Smart</span>
</a>
</li>
<?php }elseif(@$_SESSION['level']=='Pimpinan'){?>
<li>
<a href="?m=hitung">
<i class="fa fa-bar-chart"></i> <span>Hasil Smart</span>
</a>
</li>
<?php } ?>

</ul>
</section>
<!-- /.sidebar -->
</aside>

<!-- Content Wrapper. Contains page content -->
<div class="content-wrapper">
<!-- Content Header (Page header) -->

```

```

<!-- Main content -->
<section class="content">
  <?php
  if (file_exists($mod . '.php'))
    include $mod . '.php';
  else
    include 'home.php';
  ?>

</section><!-- /.content -->
</div><!-- /.content-wrapper -->
<footer class="main-footer" >
  <div class="pull-right hidden-xs">
    <b>Version</b> 2.3.0
  </div>
  <strong>Copyright &copy; 2024 <a href="">Sistem Pendukung Keputusan
(AHP-SMART) </a>.</strong> All rights reserved.
</footer>

<div class="control-sidebar-bg"></div>
</div><!-- ./wrapper -->

<!-- jQuery 2.1.4 -->

<!-- Resolve conflict in jQuery UI tooltip with Bootstrap tooltip -->
<script src="plugins/jquery/jquery-2.1.4.min.js"></script>
<!-- jQuery UI 1.11.4 -->
<script src="https://code.jquery.com/ui/1.11.4/jquery-ui.min.js"></script>
<!-- Resolve conflict in jQuery UI tooltip with Bootstrap tooltip -->
<script>
  $.widget.bridge('uibutton', $.ui.button);
</script>
<!-- Bootstrap 3.3.5 -->
<script src="bootstrap/js/bootstrap.min.js"></script>
<!-- Morris.js charts -->
<script src="https://cdnjs.cloudflare.com/ajax/libs/raphael/2.1.0/raphael-
min.js"></script>
<script src="plugins/morris/morris.min.js"></script>
<!-- Sparkline -->
<script src="plugins/sparkline/jquery.sparkline.min.js"></script>
<!-- jvectormap -->
<script src="plugins/jvectormap/jquery-jvectormap-1.2.2.min.js"></script>
<script src="plugins/jvectormap/jquery-jvectormap-world-mill-en.js"></script>
<!-- jQuery Knob Chart -->

```

```

<script src="plugins/knob/jquery.knob.js"></script>
<!-- daterangepicker -->
<script
src="https://cdnjs.cloudflare.com/ajax/libs/moment.js/2.10.2/moment.min.js"></s
cript>
<script src="plugins/daterangepicker/daterangepicker.js"></script>
<!-- datepicker -->
<script src="plugins/datepicker/bootstrap-datepicker.js"></script>
<!-- Bootstrap WYSIHTML5 -->
<script src="plugins/bootstrap-wysihtml5/bootstrap3-
wysihtml5.all.min.js"></script>
<!-- Slimscroll -->
<script src="plugins/slimScroll/jquery.slimscroll.min.js"></script>
<!-- FastClick -->
<script src="plugins/fastclick/fastclick.min.js"></script>
<!-- AdminLTE App -->
<script src="dist/js/app.min.js"></script>
<!-- AdminLTE dashboard demo (This is only for demo purposes) -->
<script src="dist/js/pages/dashboard.js"></script>
<!-- AdminLTE for demo purposes -->
<script src="dist/js/demo.js"></script>

<script>
$(function () {
  $("#example1").DataTable();
  $('#example2').DataTable({
    "paging": true,
    "lengthChange": false,
    "searching": false,
    "ordering": true,
    "info": true,
    "autoWidth": false
  });

  $(".timepicker").timepicker({
    showInputs: false
  });
});
</script>
</body>
</html>

```

Koneksi.php

```
<?php
    // connection
    $host = 'localhost';
    $username = 'root';
    $password = '';
    $database = 'db_ahp_smart';

    $koneksi = mysqli_connect($host,$username,$password);

    if (!$koneksi)
    {
        echo "Tidak dapat terkoneksi dengan server";
        exit();
    }

    if(!mysqli_select_db($koneksi, $database))
    {
        echo "Tidak dapat menemukan database";
        exit();
    }
?>
```

UNIVERSITAS
ROYAL

Kriteria.php

```

<div class="row">
  <div class="col-xs-12">
    <div class="box">
      <div class="box-header">
        <h3 class="box-title">Data Kriteria</h3>
        <a style="margin-left: 10px" class="pull-right btn btn-primary"
href="?m=tambah_kriteria">Tambah</a>
      </div><!-- /.box-header -->
      <div class="box-body">
        <table id="example2" class="table table-bordered table-hover">
          <thead>
            <tr>
              <th>Kode</th>
              <th>Nama</th>
              <th>Prioritas</th>
              <th>Bobot</th>
              <th>Aksi</th>
            </tr>
          </thead>
          <?php
@$q = $_GET['q'];
$rows = $db->get_results("SELECT * FROM tb_kriteria
WHERE kode_kriteria LIKE '%$q%' OR nama_kriteria LIKE '%$q%'
ORDER BY kode_kriteria");

foreach ($rows as $row) : ?>
  <tr>

    <td ><?= $row->kode_kriteria ?></td>
    <td ><?= $row->nama_kriteria ?></td>
    <td ><?= $row->atribut ?></td>
    <td ><?= $row->bobot ?></td>
    <td >
      <a class="btn btn-success" href="?m=ubah_kriteria&ID=<?=
$row->kode_kriteria ?>">Ubah</a>
      <a class="btn btn-danger"
href="aksi.php?act=kriteria_hapus&ID=<?= $row->kode_kriteria ?>"
onclick="return confirm('Hapus data?')">Hapus</a>
    </td>
  </tr>
<?php endforeach; ?>
</table>
</div>
</div>
</div>
</div>

```

Laporan.php

```
<?php
$awal = ($_GET['awal']) ? $_GET['awal'] : date('Y-m-01');
$akhir = ($_GET['akhir']) ? $_GET['akhir'] : date('Y-m-d');
?>

<div class="row">
  <div class="col-xs-12">
    <div class="box">

      <div class="box-header">
        <h3 class="box-title">Laporan</h3>
      </div><!-- /.box-header -->

      <div class="box-header">
        <form class="form-inline">
          <input type="hidden" name="m" value="laporan" />
          <div class="form-group">
            <input class="form-control" type="date" name="awal" value="<?= $awal
?>" />
          </div>
          <div class="form-group">
            <input class="form-control" type="date" name="akhir" value="<?= $akhir
?>" />
          </div>
          <div class="form-group">
            <button class="btn btn-success "><span class="glyphicon glyphicon-
refresh"></span> Refresh</button>
          </div>
          <div class="form-group">
            <a class="btn btn-default" href="cetak.php?m=&awal=<?= $awal
?>&akhir=<?= $akhir ?>" target="_blank"><span class="glyphicon glyphicon-
print"></span> Cetak</a>
          </div>
        </form>
      </div>
      <div class="box-body">
        <table id="example2" class="table table-bordered table-hover">
          <thead>
            <tr>
              <th>No</th>
              <th>IP</th>
              <th>Browser</th>
              <th>Sistem Operasi</th>
              <th>Tanggal</th>
            </tr>
          </thead>
          <tbody>
```

```

<?php
$where = " AND tgl>='$awal' AND tgl<='$akhir'";
$rows = $db->get_results("SELECT * FROM tb_client WHERE 1
$where");

$no=0;
foreach($rows as $row):?>
    <tr>
        <td ><?==+$no ?></td>
        <td ><?=$row->ip?></td>
        <td ><?=$row->browser?></td>
        <td ><?=$row->sop?></td>
        <td ><?=$row->tgl?></td>
    </tr>
<?php endforeach;?>
</tbody>
</table>
</div>
</div>
</div>

```

UNIVERSITAS
ROYAL

```

Login.php
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <title> Log in</title>
  <link rel="icon" type="image/png" href="img/logo/log.png">

  <meta content="width=device-width, initial-scale=1, maximum-scale=1, user-
scalable=no" name="viewport">
  <link rel="stylesheet" href="dist/css/AdminLTE.min.css">
  <link href="dist/css/style.css" rel="stylesheet" type="text/css">

  <link href="dist/login/bootstrap.min.css" rel="stylesheet" id="bootstrap-css">
  <script src="dist/login/bootstrap.min.js"></script>
  <script src="dist/login/jquery.min.js"></script>
  <link rel="stylesheet" href="dist/login/bootstrap.min.css">
  <script src="dist/login/jquery.min.js"></script>

</head>
<body class="hold-transition login-page">
  <div class="login-box">
    <div class="d-flex justify-content-center">
      <div class="brand_logo_container">
        </div>
      </div>
      <div class="login-box-body">
        <p class="login-box-msg">Sign in to start your session</p>
        <form class="form-login" action="?m=login" method="post">
          <?php if($_POST) include 'aksi.php';?>

          <div class="form-group has-feedback">
            <input type="text" name="user" class="form-control"
placeholder="Username">
            <span class="glyphicon glyphicon-envelope form-control-
feedback"></span>
          </div>
          <div class="form-group has-feedback">
            <input type="password" name="pass" class="form-control input_pass
form-password" placeholder="Password">
            <span class="glyphicon glyphicon-lock form-control-feedback"></span>
          </div>

          <div class="form-group">
            <div class="custom-control custom-checkbox">

```

```

        <input type="checkbox" class="custom-control-input form-checkbox"
id="customControlInline">
        <label class="custom-control-label" for="customControlInline">Show
Password</label>
    </div>
</div>
<div class="d-flex justify-content-center mt-3 login_container">
    <button type="submit" class="btn btn-primary btn-block btn-flat">Sign
In</button>
</div><!-- /.col -->
</form>

</div><!-- /.login-box-body -->
</div><!-- /.login-box -->

<!-- jQuery 2.1.4 -->

<script src="plugins/jQuery/jQuery-2.1.4.min.js"></script>
<!-- Bootstrap 3.3.5 -->
<script src="bootstrap/js/bootstrap.min.js"></script>
<!-- iCheck -->

<script type="text/javascript">
$(document).ready(function(){
    $('.form-checkbox').click(function(){
        if($(this).is(':checked')){
            $('.form-password').attr('type','text');
        }else{
            $('.form-password').attr('type','password');
        }
    });
});
</script>
<script>
$(function () {
    $('input').iCheck({
        checkboxClass: 'icheckbox_square-blue',
        radioClass: 'iradio_square-blue',
        increaseArea: '20%' // optional
    });
});
</script>
</body>
</html>

```

Output.php

```
<?php
include('koneksi.php');
```

```
?>
```

```
<div class="row">
```

```
    <div class="col-xs-12">
```

```
        <div class="box">
```

```
            <div class="box-header">
```

```
                <h1>Matrik Perbandingan Berpasangan</h1>
```

```
            </div>
```

```
            <div class="box-body">
```

```
                <table id="example2" class="table table-bordered
table-hover">
```

```
                    <thead>
```

```
                        <tr>
```

```
                            <th>Kriteria</th>
```

```
                            <?php
```

```
                                for ($i=0; $i <= ($n-1); $i++)
```

```
                                    echo
```

```
                            {
                                "<th>".getKriteriaNama($i)."</th>";
```

```
                                    }
                                ?>
```

```
                        </tr>
```

```
                    </thead>
```

```
                    <tbody>
```

```
                        <?php
```

```
                            for ($x=0; $x <= ($n-1); $x++) {
```

```
                                echo "<tr>";
```

```
                                echo
```

```
                            "<td>".getKriteriaNama($x)."</td>";
```

```
                            $y++) {
```

```
                                for ($y=0; $y <= ($n-1);
```

```
                                    echo
```

```
                            "<td>".round($matrik[$x][$y],2)."</td>";
```

```
                                }
```

```
                                echo "</tr>";
```

```
                            }
```

```
                        ?>
```

```
                    </tbody>
```

```
                    <tfoot>
```

```
                        <tr>
```

```
                            <th>Jumlah</th>
```

```
                            <?php
```

```

for ($i=0; $i <= ($n-1); $i++)
{
    echo
    "<th>".round($jmlmpb[$i],2)."</th>";
}
?>
</tr>
</tfoot>
</table>
</div>
</div>
</div>
</div>
<div class="row">
    <div class="col-xs-12">
        <div class="box">
            <div class="box-header">
                <h1>Matriks Nilai Kriteria</h1>
            </div>
            <div class="box-body">
                <table id="example2" class="table table-bordered
table-hover">
                    <thead>
                        <tr>
                            <th>Kriteria</th>
                            <?php
for ($i=0; $i <= ($n-1); $i++)
{
                                echo
                                "<th>".getKriteriaNama($i)."</th>";
                            }
                            ?>
                            <th>Jumlah</th>
                            <th>Priority Vector</th>
                        </tr>
                    </thead>
                    <tbody>
                        <?php
for ($x=0; $x <= ($n-1); $x++) {
                            echo "<tr>";
                            echo
                                for ($y=0; $y <= ($n-1);
                                $y++) {

```

```

" <td>".round($matrikb[$x][$y],2)." </td>";
    }
echo
" <td>".round($jmlmnk[$x],2)." </td>";
echo
" <td>".round($pv[$x],2)." </td>";
    }
    ?>
</tbody>
<tfoot>
    <tr>
        <th colspan="<?php echo
($n+2)?>">Principe Eigen Vector (λ maks)</th>
        <th><?php echo
(round($eigenvektor,2))?></th>
    </tr>
    <tr>
        <th colspan="<?php echo
($n+2)?>">Consistency Index</th>
        <th><?php echo
(round($consIndex,2))?></th>
    </tr>
    <tr>
        <th colspan="<?php echo
($n+2)?>">Consistency Ratio</th>
        <th><?php echo
(round(($consRatio),2))?> </th>
    </tr>
</tfoot>
</table>
<?php
if ($consRatio > 0.1) {
    ?>
    <br>
    <div class="ui icon red message">
        <i class="close icon"></i>
        <i class="warning circle icon"></i>
        <div class="content">
            <div class="header"
style="color: red">
                Nilai Consistency
                Ratio melebihi 10% !!!
            </div>
        </div>
    </div>
}
}
?>

```

```

        </div>
        <p style="color: red">Mohon
input kembali tabel perbandingan...</p>
    </div>
</div>

<br>

<a href='javascript:history.back()>
    <button class="btn btn-info">
        <i class="fa fa-chevron-
left"></i>
            Kembali
        </button>
    </a>
    <?php
    } else {
        <?>
        <br>
        <a href="?m=hitung">
            <button class="btn btn-success">
                <i class="fa fa-chevron-
right"></i>
                    Lanjut
            </button>
        </a>
        <?php
    }
    echo "</div></div></div></div>";
    <?>

```

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Proses.php

```
<?php
```

```
include('koneksi.php');
```

```
include('fungsi.php');
```

```
if (isset($_POST['submit'])) {
```

```
    $n          = getJumlahKriteria();
```

```
    $matrik = array();
```

```
    $urut    = 0;
```

```
    for ($x=0; $x <= ($n-2) ; $x++) {
```

```
        for ($y=($x+1); $y <= ($n-1) ; $y++) {
```

```
            $urut++;
```

```
            $pilih = "pilih".$urut;
```

```
            $bobot      = "bobot".$urut;
```

```
            if ($_POST[$pilih] == 1) {
```

```
                $matrik[$x][$y] = $_POST[$bobot];
```

```
                $matrik[$y][$x] = 1 / $_POST[$bobot];
```

```
            } else {
```

```
                $matrik[$x][$y] = 1 / $_POST[$bobot];
```

```
                $matrik[$y][$x] = $_POST[$bobot];
```

```
            }
```

```
        inputDataPerbandinganKriteria($x,$y,$matrik[$x][$y]);
```

```
    }
```

```
}
```

```
// diagonal --> bernilai 1
```

```
for ($i = 0; $i <= ($n-1); $i++) {
```

```
    $matrik[$i][$i] = 1;
```

```
}
```

```
// inisialisasi jumlah tiap kolom dan baris kriteria
```

```
$jmlmpb = array();
```

```
$jmlmnk = array();
```

```
for ($i=0; $i <= ($n-1); $i++) {
```

```
    $jmlmpb[$i] = 0;
```

```
    $jmlmnk[$i] = 0;
```

```
}
```

```
// menghitung jumlah pada kolom kriteria tabel perbandingan berpasangan
```

```
for ($x=0; $x <= ($n-1) ; $x++) {
```

```
    for ($y=0; $y <= ($n-1) ; $y++) {
```

```

        $value      = $matrik[$x][$y];
        $jmlmpb[$y] += $value;
    }
}

// menghitung jumlah pada baris kriteria tabel nilai kriteria
// matrikb merupakan matrik yang telah dinormalisasi
for ($x=0; $x <= ($n-1) ; $x++) {
    for ($y=0; $y <= ($n-1) ; $y++) {
        $matrikb[$x][$y] = $matrik[$x][$y] / $jmlmpb[$y];
        $value = $matrikb[$x][$y];
        $jmlmnk[$x] += $value;
    }
    $spv[$x]      = $jmlmnk[$x] / $n;
    $id_kriteria = getKriteriaID($x);
    inputKriteriaPV($id_kriteria,$spv[$x]);
}

// cek konsistensi
$eigenvektor = getEigenVector($jmlmpb,$jmlmnk,$n);
$sconsIndex  = getConsIndex($jmlmpb,$jmlmnk,$n);
$sconsRatio  = getConsRatio($jmlmpb,$jmlmnk,$n);

include('output.php');

}

?>

```

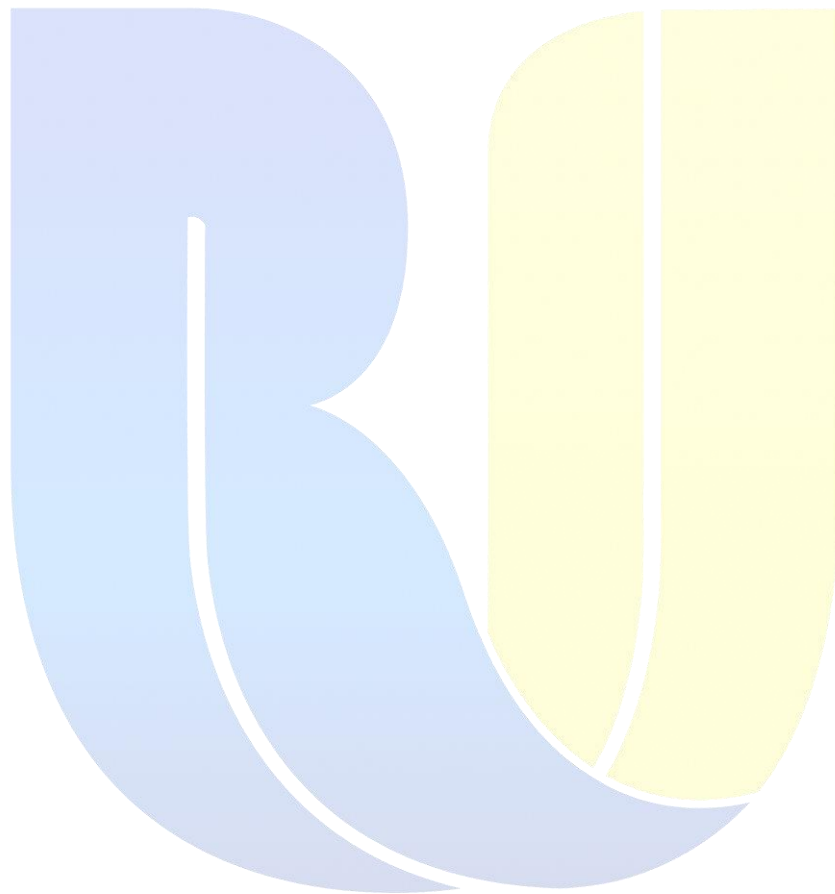
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Tambah_alternatif.php

```
<div class="row">
  <div class="col-md-12">
    <div class="box box-info">
      <div class="box-header">
        <i class="fa fa-marker"></i>
        <h3 class="box-title">Tambah Data </h3>
      </div>
      <div class="box-body">
        <?php if ($_POST) include 'aksi.php' ?>

        <form method="post">
          <div class="row">
            <div class="col-sm-6">
              <div class="form-group">
                <label>Kode <span class="text-danger">*</span></label>
                <input class="form-control" type="text" readonly="readonly"
name="kode" value="<? = set_value('kode', kode_oto('kode_alternatif',
'tb_alternatif', 'A', 4)) ?>" />
              </div>
              <div class="form-group">
                <label>Nama Alternatif <span class="text-
danger">*</span></label>
                <input class="form-control" type="text" name="nama"
value="<?=@$_POST['nama']?>" />
              </div>
              <div class="form-group">
                <label>Keterangan</label>
                <textarea class="form-control"
name="keterangan"><?=@$_POST['keterangan']?></textarea>
              </div>
            </div>
            <div class="col-md-6">
              <?php foreach($KRITERIA as $key => $val):?>
                <div class="form-group">
                  <label><?=$val->nama_kriteria?></label>
                  <select class="form-control" name="nilai[<?=$key?>]">
                    <? =get_crips_option($key, $_POST['nilai'][$key])?>
                  </select>
                </div>
              <?php endforeach?>
            </div>
          </div>
          <div class="form-group">
            <button class="btn btn-primary"><span class="glyphicon glyphicon-
save"></span> Simpan</button>
            <a class="btn btn-danger" href="?m=alternatif"><span
class="glyphicon glyphicon-arrow-left"></span> Kembali</a>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>
```

```
</div>  
</form>  
</div>  
</div>  
</div>
```



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Tambah_kriteria.php

```
<div class="row">
  <div class="col-md-6">
    <div class="box box-info">
      <div class="box-header">
        <i class="fa fa-marker"></i>
        <h3 class="box-title">Tambah Data </h3>
      </div>
      <?php if ($_POST) include 'aksi.php' ?>
      <div class="box-body">
        <form method="post">
          <div class="form-group">
            <label>Kode <span class="text-danger">*</span></label>
            <input class="form-control" type="text" readonly="readonly"
name="kode" value="<?= set_value('kode', kode_oto('kode_kriteria', 'tb_kriteria',
'C', 2)) ?>" />
          </div>
          <div class="form-group">
            <label>Nama Kriteria<span class="text-danger">*</span></label>
            <input class="form-control" type="text" name="nama" value="<?=
set_value('nama') ?>" />
          </div>
          <div class="form-group">
            <label>Atribut <span class="text-danger">*</span></label>
            <select class="form-control" name="atribut">
              <option value="">Pilih Atribut</option>
              <option><?= get_atribut_option(set_value('atribut')) ?></option>
            </select>
          </div>

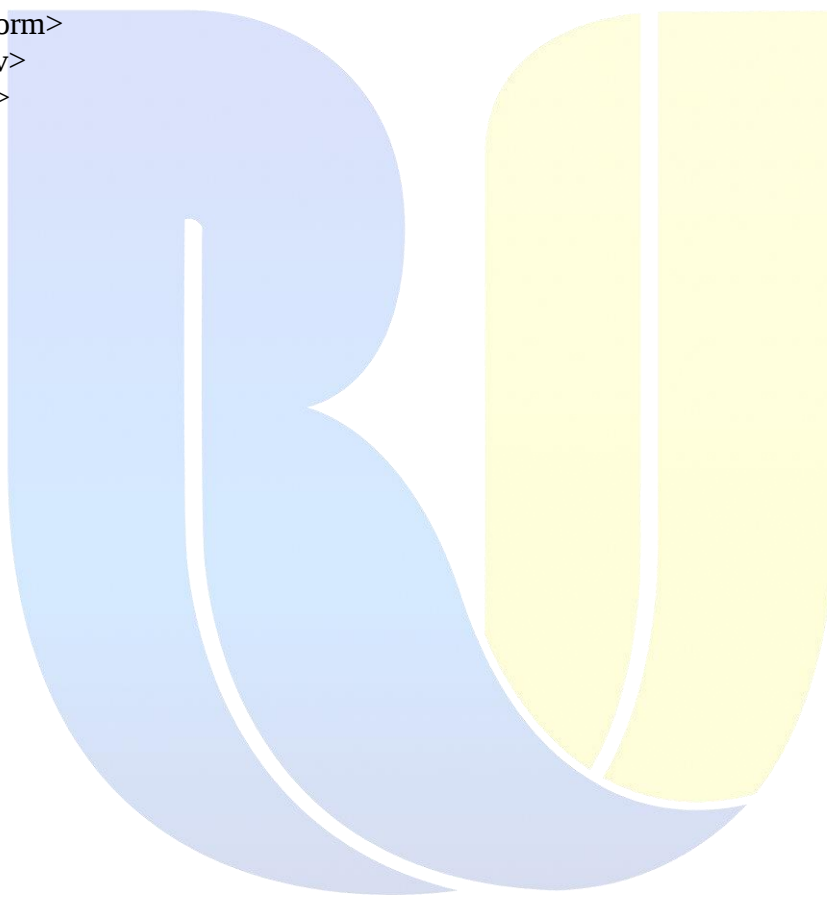
          <div class="form-group">
            <button class="btn btn-primary"><span class="glyphicon glyphicon-
save"></span> Simpan</button>
            <a class="btn btn-danger" href="?m=kriteria"><span class="glyphicon
glyphicon-arrow-left"></span> Kembali</a>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>
```

```

Ubah_alternatif.php
<?php
$row = $db->get_row("SELECT * FROM tb_alternatif WHERE
kode_alternatif='$_GET[ID]'");
?>
<div class="row">
  <div class="col-md-12">
    <div class="box box-info">
      <div class="box-header">
        <i class="fa fa-marker"></i>
        <h3 class="box-title">Ubah Data </h3>
      </div>
      <div class="box-body">
        <form method="post" action="?m=ubah_alternatif&ID=<?=$row-
>kode_alternatif?>">
          <?php if($_POST) include'aksi.php'?>
          <div class="row">
            <div class="col-sm-6">
              <div class="form-group">
                <label>Kode <span class="text-danger">*</span></label>
                <input class="form-control" type="text" name="kode"
readonly="readonly" value="<?=$row->kode_alternatif?>"/>
              </div>
              <div class="form-group">
                <label>Nama Alternatif <span class="text-danger">*</span></label>
                <input class="form-control" type="text" name="nama" value="<?=$row-
>nama_alternatif?>"/>
              </div>
              <div class="form-group">
                <label>Keterangan</label>
                <textarea class="form-control" name="keterangan"><?=$row-
>keterangan?></textarea>
              </div>
            </div>
            <div class="col-md-6">
              <?php
              $rows = $db->get_results("SELECT * FROM tb_rel_alternatif r
INNER JOIN tb_kriteria k ON k.kode_kriteria=r.kode_kriteria
WHERE kode_alternatif='$row->kode_alternatif' ORDER BY
r.kode_kriteria ASC");
              foreach($rows as $row):?>
                <div class="form-group">
                  <label><?=$row->nama_kriteria?></label>
                  <select class="form-control" name="nilai[<?=$row->ID?>]">
                    <?=get_crips_option($row->kode_kriteria, $row->kode_crips)?>
                  </select>
                </div>
              <?php endforeach?>

```

```
</div>
</div>
<div class="form-group">
  <button class="btn btn-primary"><span class="glyphicon glyphicon-
save"></span> Simpan</button>
  <a class="btn btn-danger" href="?m=alternatif"><span class="glyphicon
glyphicon-arrow-left"></span> Kembali</a>
</div>
</form>
</div>
</div>
</div>
```



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Ubah_kriteria.php

```
<div class="row">
  <div class="col-md-6">
    <div class="box box-info">
      <div class="box-header">
        <i class="fa fa-marker"></i>
        <h3 class="box-title">Ubah Data </h3>
      </div>
      <div class="box-body">
        <?php
          $row = $db->get_row("SELECT * FROM tb_kriteria WHERE
kode_kriteria='$_GET[ID]");
        ?>

        <?php if ($_POST) include 'aksi.php' ?>
        <form method="post">
          <div class="form-group">
            <label>Kode <span class="text-danger">*</span></label>
            <input class="form-control" type="text" name="kode" value="<?=$row->kode_kriteria ?>" readonly="" />
          </div>
          <div class="form-group">
            <label>Nama Kriteria<span class="text-danger">*</span></label>
            <input class="form-control" type="text" name="nama" value="<?=set_value('nama', $row->nama_kriteria) ?>" />
          </div>
          <div class="form-group">
            <label>Atribut <span class="text-danger">*</span></label>
            <select class="form-control" name="atribut">
              <option></option>
              <?=get_atribut_option(set_value('atribut', $row->atribut)) ?>
            </select>
          </div>

          <input class="form-control" type="hidden" name="bobot" value="<?=set_value('bobot', $row->bobot) ?>" />

          <div class="form-group">
            <button class="btn btn-primary"><span class="glyphicon glyphicon-save"></span> Simpan</button>
            <a class="btn btn-danger" href="?m=kriteria"><span class="glyphicon glyphicon-arrow-left"></span> Kembali</a>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>
```

</div>



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