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LISTING PROGRAM

- LOGING

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

if (isset($_SESSION['username'])) {
    header("Location: dashboard.php");
    exit;
}

$login_failed = false;
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
    $user = $_POST['username'];
    $pass = md5($_POST['password']);

    $stmt = $koneksi->prepare("SELECT id, `fullname`, `role` FROM tb_login WHERE
`username`=? AND `password`=?");
    $stmt->bind_param('ss', $user, $pass);
    $stmt->execute();
    $stmt->store_result();

    if ($stmt->num_rows === 1) {
        $stmt->bind_result($id, $fullname, $role);
        $stmt->fetch();
        $_SESSION['username'] = $user;
        $_SESSION['fullname'] = $fullname;
        $_SESSION['role'] = $role;
        $success = true;
        $target_page = 'dashboard.php';
    } else {
        $login_failed = true;
    }
}
?>
<!DOCTYPE html>
<html lang="id">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login | Analisis Minat Belajar MDTA</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
    <link
href="https://fonts.googleapis.com/css2?family=Plus+Jakarta+Sans:wght@300;400;600;700
&display=swap"

```

```

    rel="stylesheet">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/animate.css/4.1.1/animate.min.css" />
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.4.0/css/all.min.css">

<style>
:root {
  --mdta-emerald: #064e3b;
  /* Hijau Tua Madrasah */
  --mdta-light-green: #10b981;
  /* Hijau Aksen Modern */
  --mdta-accent: #f59e0b;
  /* Kuning/Emas untuk aksen */
}

body {
  font-family: 'Plus Jakarta Sans', sans-serif;
  background-color: #f0fdf4;
  height: 100vh;
  margin: 0;
  overflow: hidden;
}

.login-wrapper {
  height: 100vh;
  display: flex;
}

/* Kolom Kiri: Visual Skripsi */
.info-side {
  background: linear-gradient(135deg, rgba(6, 78, 59, 0.95), rgba(16, 185, 129, 0.85)),
    url('https://images.unsplash.com/photo-1577891772247-26621fef2766?ixlib=rb-
1.2.1&auto=format&fit=crop&w=1350&q=80');
  background-size: cover;
  background-position: center;
  color: white;
  display: flex;
  flex-direction: column;
  justify-content: center;
  padding: 5.5rem;
  width: 55%;
  position: relative;
}

.info-side::before {
  content: "";
  position: absolute;
  top: 0;
  left: 0;

```

```
right: 0;
bottom: 0;
background: url('https://www.transparenttextures.com/patterns/islamic-art.png');
opacity: 0.1;
}

/* Kolom Kanan: Form */
.form-side {
width: 45%;
background: white;
display: flex;
align-items: center;
justify-content: center;
padding: 3rem;
border-top-left-radius: 30px;
border-bottom-left-radius: 30px;
box-shadow: -10px 0 30px rgba(0, 0, 0, 0.05);
z-index: 10;
}

.login-box {
width: 100%;
max-width: 420px;
}

.brand-logo {
width: 80px;
height: 80px;
background: #ecfdf5;
border-radius: 20px;
display: flex;
align-items: center;
justify-content: center;
margin: 0 auto 1.5rem;
color: var(--mdta-light-green);
font-size: 2.2rem;
border: 2px solid #d1fae5;
}

.form-control {
border-radius: 12px;
padding: 0.8rem 1.2rem;
background-color: #f9fafb;
border: 1.5px solid #f3f4f6;
transition: all 0.3s ease;
}

.form-control:focus {
background-color: #fff;
border-color: var(--mdta-light-green);
}
```

```
    box-shadow: 0 0 0 4px rgba(16, 185, 129, 0.1);
  }

.btn-login {
  background: var(--mdta-emerald);
  border: none;
  border-radius: 12px;
  padding: 0.9rem;
  font-weight: 700;
  letter-spacing: 0.5px;
  transition: all 0.3s ease;
}

.btn-login:hover {
  background: var(--mdta-light-green);
  transform: translateY(-2px);
  box-shadow: 0 8px 20px rgba(16, 185, 129, 0.25);
}

.feature-item {
  margin-bottom: 2rem;
  display: flex;
  align-items: center;
  background: rgba(255, 255, 255, 0.1);
  padding: 1.2rem;
  border-radius: 15px;
  backdrop-filter: blur(5px);
  border: 1px solid rgba(255, 255, 255, 0.1);
}

.feature-icon {
  background: var(--mdta-accent);
  width: 50px;
  height: 50px;
  border-radius: 12px;
  display: flex;
  align-items: center;
  justify-content: center;
  margin-right: 18px;
  font-size: 1.2rem;
  flex-shrink: 0;
}

@media (max-width: 992px) {
  .info-side {
    display: none;
  }

  .form-side {
    width: 100%;
  }
}
```

```

        border-radius: 0;
    }
}
</style>
</head>

<body>

<div class="login-wrapper">
  <div class="info-side animate__animated animate__fadeIn">
    <div style="position: relative; z-index: 2;">
      <span class="badge bg-warning text-dark mb-3 px-3 py-2 rounded-pill fw-
bold">Penelitian Skripsi</span>
      <h1 class="fw-bold mb-3 display-5">Analisis Pola Minat Belajar Siswa
MDTA</h1>
      <p class="lead mb-5 opacity-90">Sistem pendukung keputusan menggunakan
algoritma <strong>K-Means
Clustering</strong> untuk pengelompokan tingkat minat belajar santri secara
saintifik.</p>

      <div class="feature-item animate__animated animate__fadeInLeft
animate__delay-1s">
        <div class="feature-icon"><i class="fas fa-microchip"></i></div>
        <div>
          <h6 class="mb-1 fw-bold">Algoritma K-Means</h6>
          <p class="small mb-0 opacity-75">Iterasi data minat belajar untuk
menghasilkan cluster yang
          akurat.</p>
        </div>
      </div>

      <div class="feature-item animate__animated animate__fadeInLeft
animate__delay-2s">
        <div class="feature-icon"><i class="fas fa-user-graduate"></i></div>
        <div>
          <h6 class="mb-1 fw-bold">Fokus Objek MDTA</h6>
          <p class="small mb-0 opacity-75">Dirancang khusus untuk karakteristik
pendidikan Madrasah
          Diniyah.</p>
        </div>
      </div>
    </div>
  </div>
  <div class="form-side animate__animated animate__slideInRight">
    <div class="login-box text-center">
      <div class="brand-logo shadow-sm">
        <i class="fas fa-book-open"></i>
      </div>
      <h2 class="fw-bold text-dark mb-2">Portal Admin</h2>
    </div>
  </div>

```

```

<p class="text-muted mb-5">Silakan masuk untuk mengelola data analisis</p>

<form method="POST" class="text-start">
  <div class="mb-4">
    <label class="form-label small fw-bold text-uppercase text-
muted">Username</label>
    <div class="input-group">
      <span class="input-group-text bg-light border-0"><i
class="fas fa-user text-muted"></i></span>
      <input type="text" name="username" class="form-control"
placeholder="Input username"
required>
    </div>
  </div>

  <div class="mb-4">
    <div class="d-flex justify-content-between">
      <label class="form-label small fw-bold text-uppercase text-
muted">Password</label>
    </div>
    <div class="input-group">
      <span class="input-group-text bg-light border-0"><i
class="fas fa-lock text-muted"></i></span>
      <input type="password" name="password" class="form-control"
placeholder="Input password"
required>
    </div>
  </div>

  <div class="d-flex justify-content-between align-items-center mb-5">
    <div class="form-check">
      <input class="form-check-input" type="checkbox" id="remember">
      <label class="form-check-label small text-muted" for="remember">Ingat
Sesi</label>
    </div>
    <a href="#" class="text-decoration-none small fw-bold" style="color: var(--
mdta-emerald);">Lupa
    Password?</a>
  </div>

  <button type="submit" class="btn btn-primary btn-login w-100 text-white
shadow-lg mb-4">
    LOGIN SISTEM <i class="fas fa-sign-in-alt ms-2"></i>
  </button>
</form>

<div class="mt-4 pt-4 border-top">
  <p class="small text-muted mb-0">Sistem Analisis Minat Belajar v1.0</p>
  <p class="small fw-bold" style="color: var(--mdta-emerald);">&copy; <?
date('Y') ?> MDTA Takmiliyah

```

```

        Awaliyah</p>
    </div>
</div>
</div>
</div>

<script src="https://cdn.jsdelivr.net/npm/sweetalert2@11"></script>
<script>
    <?php if ($login_failed): ?>
        Swal.fire({
            icon: 'error',
            title: 'Akses Ditolak',
            text: 'Kombinasi username dan password tidak ditemukan.',
            confirmButtonColor: '#064e3b'
        });
    <?php endif; ?>

    <?php if (isset($success) && $success): ?>
        Swal.fire({
            icon: 'success',
            title: 'Login Berhasil',
            text: 'Menghubungkan ke server analisis...',
            timer: 2000,
            showConfirmButton: false,
            willClose: () => {
                window.location.href = '<?= $target_page ?>';
            }
        });
    <?php endif; ?>
</script>

</body>

</html>

```

- **LOGOUT**

```

<?php
// logout.php - destroy session
session_start();
session_unset();
session_destroy();
header('Location: login.php');
exit;

```

- **Koneksi**

```
<?php
// koneksi.php - file koneksi database
$host = 'localhost';
$user = 'root';
$password = 'root';
$db = 'kmeans';

$koneksi = new mysqli("localhost", "root", "root", "kmeans");
if ($koneksi->connect_error) {
    die('Koneksi gagal: ' . $koneksi->connect_error);
}
```

- **Dashboard**

```
<?php
require_once 'auth.php';
cek_login();
include 'koneksi.php';

// Path profil image dummy berdasarkan nama (Warna disesuaikan ke Emerald)
$user_avatar = "https://ui-avatars.com/api/?name=" . urlencode($_SESSION['fullname']) .
"&background=10b981&color=fff&bold=true";
?>
<!DOCTYPE html>
<html lang="id">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Dashboard | MDTA Analysis System</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
    <link
href="https://fonts.googleapis.com/css2?family=Plus+Jakarta+Sans:wght@300;400;500;600;700&display=swap"
rel="stylesheet">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.4.0/css/all.min.css">
    <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/animate.css/4.1.1/animate.min.css" />

<style>
:root {
    --mdta-primary: #064e3b;
    /* Emerald Deep */
    --mdta-secondary: #065f46;
    /* Emerald Medium */
```

```

--mdta-accent: #10b981;
/* Emerald Light */
--mdta-gold: #f59e0b;
--bg-light: #f0fdf4;
/* Very Light Green */
--sidebar-width: 280px;
}

body {
  font-family: 'Plus Jakarta Sans', sans-serif;
  background-color: var(--bg-light);
  overflow-x: hidden;
}

/* Sidebar Styling */
#sidebar {
  width: var(--sidebar-width);
  height: 100vh;
  position: fixed;
  background: var(--mdta-primary);
  background: linear-gradient(180deg, var(--mdta-primary) 0%, #022c22 100%);
  color: white;
  transition: all 0.3s;
  z-index: 1000;
  box-shadow: 4px 0 15px rgba(0, 0, 0, 0.15);
}

.sidebar-header {
  padding: 35px 25px;
  border-bottom: 1px solid rgba(255, 255, 255, 0.1);
  position: relative;
}

/* Pattern islami halus pada sidebar */
.sidebar-header::after {
  content: "";
  position: absolute;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
  background: url('https://www.transparenttextures.com/patterns/islamic-art.png');
  opacity: 0.05;
  pointer-events: none;
}

.nav-link {
  color: rgba(255, 255, 255, 0.7);
  padding: 14px 25px;
  display: flex;

```

```
    align-items: center;
    font-size: 0.88rem;
    font-weight: 500;
    transition: all 0.3s;
    border-radius: 50px 0 0 50px;
    margin-left: 15px;
    margin-bottom: 5px;
}

.nav-link i {
    width: 30px;
    font-size: 1.1rem;
}

.nav-link:hover {
    color: white;
    background: rgba(255, 255, 255, 0.05);
}

.nav-link.active {
    background: var(--bg-light);
    color: var(--mdta-primary);
    font-weight: 700;
    box-shadow: -5px 5px 15px rgba(0, 0, 0, 0.1);
}

/* Main Content */
#content {
    margin-left: var(--sidebar-width);
    width: calc(100% - var(--sidebar-width));
    padding: 30px 40px;
    min-height: 100vh;
    transition: all 0.3s;
}

.top-bar {
    background: white;
    padding: 15px 30px;
    border-radius: 18px;
    box-shadow: 0 4px 20px rgba(0, 0, 0, 0.04);
    margin-bottom: 35px;
    border: 1px solid rgba(0, 0, 0, 0.02);
}

.logout-btn {
    background: rgba(239, 68, 68, 0.1);
    color: #ef4444 !important;
    margin-top: 20px;
    border-radius: 12px !important;
}
```

```

.logout-btn:hover {
  background: #ef4444 !important;
  color: white !important;
}

@media (max-width: 992px) {
  #sidebar {
    margin-left: calc(-1 * var(--sidebar-width));
  }

  #content {
    margin-left: 0;
    width: 100%;
    padding: 20px;
  }

  #sidebar.active {
    margin-left: 0;
  }
}
</style>
</head>

<body>

<nav id="sidebar">
  <div class="sidebar-header text-center">
    <div class="mb-2">
      <i class="fas fa-mosque fa-2x text-warning"></i>
    </div>
    <h6 class="fw-bold mb-0" style="letter-spacing: 1px;">MDTA SYSTEM</h6>
    <small class="opacity-50 text-uppercase" style="font-size: 0.6rem; letter-spacing:
1px;">Analisis Minat
      Belajar</small>
    </div>

    <div class="mt-4">
      <div class="px-4 mb-3 small text-uppercase fw-bold opacity-40" style="font-size:
0.65rem; color: #a7f3d0;">
        Data Master</div>

      <a href="?page=home"
        class="nav-link <?= (!isset($_GET['page']) || $_GET['page'] == 'home') ? 'active' :
" ?>">
        <i class="fas fa-house-user"></i> Dashboard
      </a>

      <a href="?page=karyawan/alternatif"

```

```

        class="nav-link <?=(isset($_GET['page']) && $_GET['page'] ==
karyawan/alternatif) ? 'active' : " ?>">
        <i class="fas fa-user-graduate"></i> Data Santri
    </a>

    <a href="?page=karyawan/atribut"
        class="nav-link <?=(isset($_GET['page']) && $_GET['page'] ==
karyawan/atribut) ? 'active' : " ?>">
        <i class="fas fa-layer-group"></i> Kriteria Minat
    </a>

    <div class="px-4 mt-4 mb-3 small text-uppercase fw-bold opacity-40"
        style="font-size: 0.65rem; color: #a7f3d0;">Proses Riset</div>

    <a href="?page=karyawan/penilaian"
        class="nav-link <?=(isset($_GET['page']) && $_GET['page'] ==
karyawan/penilaian) ? 'active' : " ?>">
        <i class="fas fa-user-pen"></i> Input Skor Minat
    </a>

    <a href="?page=karyawan/proses_kmeans"
        class="nav-link <?=(isset($_GET['page']) && $_GET['page'] ==
karyawan/proses_kmeans) ? 'active' : " ?>">
        <i class="fas fa-microchip"></i> Hitung K-Means
    </a>

    <div class="px-4 mt-auto">
        <a href="logout.php" class="nav-link logout-btn">
            <i class="fas fa-right-from-bracket"></i> Keluar
        </a>
    </div>
</div>
</nav>

<main id="content">
    <div class="top-bar d-flex justify-content-between align-items-center
animate__animated animate__fadeInDown">
        <div class="d-flex align-items-center">
            <button class="btn btn-light d-lg-none me-3" id="sidebarCollapse">
                <i class="fas fa-bars"></i>
            </button>
            <div>
                <span class="text-muted small d-block">Selamat datang di Sistem
Analisis</span>
                <h6 class="fw-bold mb-0 text-dark">MDTA Takmilyah Awaliyah</h6>
            </div>
        </div>

    <div class="d-flex align-items-center">

```

```

<div class="text-end me-3 d-none d-md-block">
  <div class="fw-bold small text-dark"><?= $_SESSION['fullname'] ?></div>
  <span class="badge bg-success-subtle text-success border border-success-subtle
text-uppercase"
    style="font-size: 0.6rem;"><?= $_SESSION['role'] ?></span>
</div>
<div class="dropdown">
  <a href="#" data-bs-toggle="dropdown">
    
  </a>
  <ul class="dropdown-menu dropdown-menu-end shadow-lg border-0 rounded-4
mt-2">
    <li><a class="dropdown-item py-2 small" href="#"><i class="fas fa-id-card
me-2 text-muted"></i>
      Profil Riset</a></li>
    <li>
      <hr class="dropdown-divider">
    </li>
    <li><a class="dropdown-item py-2 small text-danger" href="logout.php"><i
class="fas fa-power-off me-2"></i> Keluar</a></li>
  </ul>
</div>
</div>
</div>
</div>
<div class="animate__animated animate__fadeIn">
  <?php
if (isset($_GET["page"]) && $_GET["page"] != "home") {
  $page = $_GET["page"];
  if (file_exists($page . ".php")) {
    include($page . ".php");
  } else {
    echo '<div class="alert bg-white shadow-sm rounded-4 p-5 text-center border-
0">
      <i class="fas fa-circle-question fa-4x mb-3 text-emerald opacity-20"></i>
      <h4 class="fw-bold">Halaman Tidak Ditemukan</h4>
      <p class="text-muted">Modul analisis yang Anda akses belum
tersedia.</p>
      <a href="?page=home" class="btn btn-success px-4 rounded-
pill">Kembali ke Dashboard</a>
    </div>;
  }
} else {
  include('home.php');
}
?>
</div>
</main>

```

```

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
<script>
    document.getElementById('sidebarCollapse')?.addEventListener('click', function () {
        document.getElementById('sidebar').classList.toggle('active');
    });
</script>
</body>

</html>

```

- **Home**

```

<?php
// 1. Hitung Total Santri (Alternatif)
$query_alternatif = mysqli_query($koneksi, "SELECT COUNT(*) as total FROM
tb_alternatif");
$row_alternatif = mysqli_fetch_assoc($query_alternatif);
$total_alternatif = $row_alternatif['total'];

// 2. Hitung Kriteria Minat (Atribut)
$query_atribut = mysqli_query($koneksi, "SELECT COUNT(*) as total FROM tb_atribut");
$row_atribut = mysqli_fetch_assoc($query_atribut);
$total_atribut = $row_atribut['total'];

// 3. Hitung Total Skor Minat (Penilaian)
$query_penilaian = mysqli_query($koneksi, "SELECT COUNT(*) as total FROM
tb_penilaian");
$row_penilaian = mysqli_fetch_assoc($query_penilaian);
$total_penilaian = $row_penilaian['total'];

// Hitung persentase kelengkapan data riset
$target_data = $total_alternatif * $total_atribut;
$persentase_lengkap = ($target_data > 0) ? round(($total_penilaian / $target_data) * 100) :
0;
?>

<style>
.welcome-banner-custom {
    /* Gradasi Hijau Emerald khas MDTA */
    background: linear-gradient(135deg, #064e3b 0%, #10b981 100%);
    color: white;
    border-radius: 24px;
    padding: 45px;
    margin-bottom: 35px;
    position: relative;
    overflow: hidden;
}

```

```
border: none;
}

.welcome-banner-custom::after {
  content: '\f662';
  /* FontAwesome Mosque Icon */
  font-family: 'Font Awesome 6 Free';
  font-weight: 900;
  position: absolute;
  right: -10px;
  bottom: -30px;
  font-size: 14rem;
  opacity: 0.1;
  transform: rotate(-10deg);
}

.stat-card {
  border: none;
  border-radius: 20px;
  transition: all 0.4s cubic-bezier(0.165, 0.84, 0.44, 1);
  background: white;
}

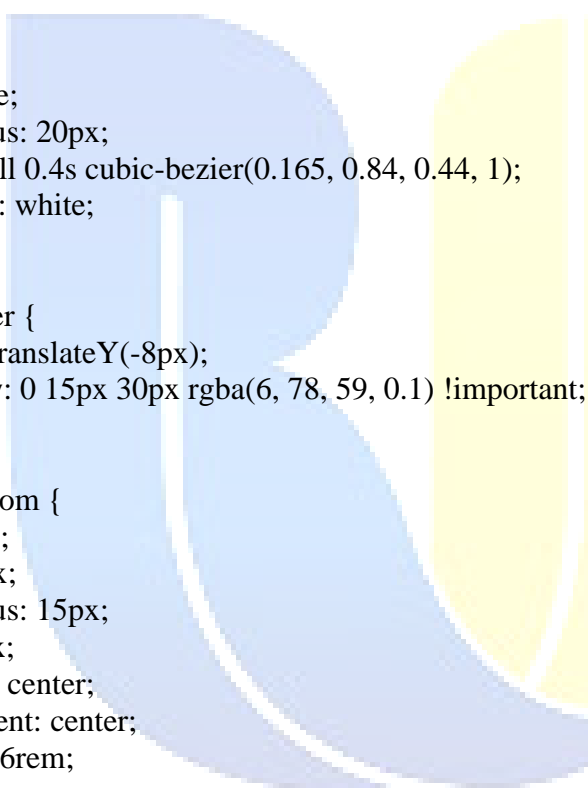
.stat-card:hover {
  transform: translateY(-8px);
  box-shadow: 0 15px 30px rgba(6, 78, 59, 0.1) !important;
}

.icon-box-custom {
  width: 65px;
  height: 65px;
  border-radius: 15px;
  display: flex;
  align-items: center;
  justify-content: center;
  font-size: 1.6rem;
}

.progress-custom {
  height: 10px;
  border-radius: 50px;
  background-color: #f0fdf4;
}

.text-emerald {
  color: #064e3b;
}

.bg-emerald-soft {
  background-color: rgba(16, 185, 129, 0.1);
}
```



```

}
</style>

<div class="welcome-banner-custom shadow-lg animate__animated animate__fadeIn">
  <div class="row align-items-center">
    <div class="col-md-9" style="position: relative; z-index: 2;">
      <span class="badge bg-warning text-dark mb-3 px-3 py-2 rounded-pill fw-
bold">Statistik Riset Skripsi</span>
      <h2 class="fw-bold mb-2">Panel Analisis Pola Minat Belajar</h2>
      <p class="lead mb-0 opacity-90">Implementasi Algoritma <strong>K-Means
Clustering</strong> untuk pemetaan
minat santri pada <strong>MDTA Takmiliyah Awaliyah</strong>.</p>
    </div>
    <div class="col-md-3 text-end d-none d-md-block" style="position: relative; z-index:
2;">
      <i class="fas fa-microchip fa-5x opacity-50"></i>
    </div>
  </div>
</div>

<div class="row g-4 mb-4">
  <div class="col-md-4">
    <div class="stat-card card h-100 shadow-sm p-3">
      <div class="d-flex align-items-center">
        <div class="icon-box-custom bg-emerald-soft text-success me-3">
          <i class="fas fa-user-graduate"></i>
        </div>
        <div>
          <small class="text-muted d-block fw-medium">Total Santri (Sampel)</small>
          <h3 class="fw-bold mb-0 text-dark"><?= number_format($total_alternatif, 0, ',',
!') ?> <span
class="fs-6 fw-normal text-muted">Orang</span></h3>
        </div>
      </div>
    </div>
  </div>
  <div class="col-md-4">
    <div class="stat-card card h-100 shadow-sm p-3">
      <div class="d-flex align-items-center">
        <div class="icon-box-custom bg-warning bg-opacity-10 text-warning me-3">
          <i class="fas fa-list-check"></i>
        </div>
        <div>
          <small class="text-muted d-block fw-medium">Indikator Minat
Belajar</small>
          <h3 class="fw-bold mb-0 text-dark"><?= $total_atribut ?> <span
class="fs-6 fw-normal text-muted">Kriteria</span></h3>
        </div>
      </div>
    </div>
  </div>

```

```

</div>
</div>

<div class="col-md-4">
  <div class="stat-card card h-100 shadow-sm p-3 border-start border-5 border-success">
    <div class="d-flex align-items-center">
      <div class="icon-box-custom bg-success bg-opacity-10 text-success me-3">
        <i class="fas fa-diagram-project"></i>
      </div>
      <div>
        <small class="text-muted d-block fw-medium">Metode Analisis</small>
        <h3 class="fw-bold mb-0 text-emerald">K-Means</h3>
      </div>
    </div>
  </div>
</div>
</div>
</div>
</div>

<div class="row g-4">
  <div class="col-md-8">
    <div class="stat-card card h-100 shadow-sm p-4">
      <div class="d-flex justify-content-between align-items-center mb-4">
        <div>
          <h5 class="fw-bold mb-1 text-dark">Matriks Penilaian Santri</h5>
          <p class="small text-muted mb-0">Kelengkapan atribut data untuk proses
clustering</p>
        </div>
        <span class="badge rounded-pill bg-success px-3 py-2"><?= $total_penilaian ?>
Entri Data</span>
      </div>
      <div class="mb-4 pt-2">
        <div class="d-flex justify-content-between mb-2">
          <span class="small fw-bold">Persentase Kesiapan Analisis</span>
          <span class="small fw-bold text-success"><?= $persentase_lengkap
?>%</span>
        </div>
        <div class="progress progress-custom">
          <div class="progress-bar progress-bar-striped progress-bar-animated bg-
success" role="progressbar"
          style="width: <?= $persentase_lengkap ?>%;"></div>
        </div>
      </div>
    </div>
  </div>
  <div class="p-3 rounded-4 bg-light border-0">
    <div class="d-flex">
      <div class="me-3">
        <i class="fas fa-circle-info text-success fa-lg mt-1"></i>
      </div>
      <p class="small text-muted mb-0">

```

Catatan Peneliti: Pastikan seluruh santri (\sum \$total_alternatif \$ jiwa) telah memiliki skor pada tiap kriteria (\sum \$total_atribut atribut). Ketidaklengkapan data dapat mempengaruhi validitas pembentukan centroid pada algoritma K-Means.

```
</p>
</div>
</div>
</div>
</div>

<div class="col-md-4">
  <div class="stat-card card h-100 shadow-sm p-4">
    <h5 class="fw-bold mb-4 text-dark">Informasi Sistem</h5>
    <div class="list-group list-group-flush">
      <div
        class="list-group-item px-0 py-3 d-flex justify-content-between align-items-
        center border-0 border-bottom">
        <span class="small text-muted"><i class="fas fa-server me-2 text-
        success"></i> Status
          Database</span>
        <span class="badge bg-success-subtle text-success rounded-pill px-3 py-
        1">Online</span>
      </div>
      <div
        class="list-group-item px-0 py-3 d-flex justify-content-between align-items-
        center border-0 border-bottom">
        <span class="small text-muted"><i class="fas fa-user-tie me-2 text-
        success"></i> Hak Akses</span>
        <span class="fw-bold small text-dark"><math>\sum_{role} \text{'Peneliti'}</math>
        ?></span>
      </div>
      <div
        class="list-group-item px-0 py-3 d-flex justify-content-between align-items-
        center border-0 border-bottom">
        <span class="small text-muted"><i class="fas fa-clock me-2 text-success"></i>
        Waktu Sistem</span>
        <span class="fw-bold small text-dark"><math>\sum \text{date('H:i')} \text{ WIB}</math>
        </span>
      </div>
      <div class="list-group-item px-0 py-3 d-flex justify-content-between align-items-
        center border-0">
        <span class="small text-muted"><i class="fas fa-calendar-day me-2 text-
        success"></i> Tanggal
          Sesi</span>
        <span class="fw-bold small text-dark"><math>\sum \text{date('d F Y')}</math>
        </span>
      </div>
    </div>
  </div>
</div>
</div>
</div>
```

Kisaran, 24 November 2025

Nomor : 042-255/PP-00.10/UR/XI/2025

Hal : Permohonan Riset

Kepada Yth,
Kepala MDTA Qur'an Kisaran
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 25 November 2025 - 25 Desember 2025. Berikut ini data mahasiswa yang akan melaksanakan Riset :

No	Nama Mahasiswa	Program Studi	L/P	NIM
1	Mica Adella	Sistem Informasi-S1	P	22.22.0031

Adapun Tujuan dilaksanakannya Riset ini untuk Menyelesaikan Penulisan Skripsi Program Strata I (S1) Universitas Royal. Judul Skripsi : "*Analisis Pola Minat Belajar Siswa Madrasah Diniyah Takmiliah Awalyah (MDTA) Menggunakan Algoritma K-Means*".

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

Hormat Kami
Rektor,


Wati Mariatul Kifti, M.M. :
NIDN. 0114057302



YAYASAN PENDIDIKAN QUR'AN
MADRASAH DINIYAH TAKMILIAH AWALIAH QUR'AN
(MDTA QUR'AN KISARAN)

Alamat: Jl. Jabe Lk. IV Kel. Sentang, Kec. Kota Kisaran Timur, 21224 Kab. Asahan-Prov. Sumut
Email: mdtaqur'an@gmail.com Hp. 0813 7011 8280 / 0852 6240 8025

Kisaran, 1 Desember 2025

Nomor : 004/SK/KaMDTA-Q/XII/2025
Hal : Balasan Permohonan Izin Riset

Kepada Yth,
Rektor Universitas Royal
Di-
Tempat

Dengan hormat,

Sehubungan dengan surat Bapak/Ibu Rektor Universitas Royal dengan nomor surat 042-255/PP-00.10/UR/XI/2025 pada tanggal 24 November 2025 perihal Permohonan Riset dalam rangka Menyelesaikan Penulisan Skripsi Program Strata 1 (S1) dari mahasiswa yang bernama Mica Adella dengan judul Skripsi "*Analisis Pola Minat Belajar Siswa Madrasah Diniyah Takmilyah Awaliah (MDTA) Menggunakan Algoritma K-Means*".

Perlu kami sampaikan beberapa hal sebagai berikut :

1. Pada prinsipnya kami tidak keberatan dan mendukung penelitian/riset tersebut di lembaga kami
2. Izin melakukan penelitian/riset diberikan semata-mata untuk keperluan akademik

Demikian surat balasan ini kami berikan untuk digunakan sebagaimana mestinya.





UNIVERSITAS ROYAL
FAKULTAS ILMU KOMPUTER
 PROGRAM STUDI SISTEM INFORMASI

Jl. Raya, Pong. Pang. 10-10. No. 171. Telp. 0 431-822-41079 Fax. 20 00 1 000000. Kot. Pangkajene, Prov. Sulawesi Utara

LEMBAR KONSULTASI SKRIPSI

Nama Mahasiswa : MICA ADELLA
 NIM : 22220031
 Program Studi : Sistem Informasi
 Judul Skripsi/TA : ANALISIS POLA MINAT BELAJAR SISWA MADRASAH DINIYAH TAKMILYAH AWALIYAH (MDTA) MENGGUNAKAN ALGORITMA K-MEANS
 Dosen Pembimbing : 1. DR. WILLIAM RAMDHAN, M. Kom
 : 2. YORI APRIDONAL M, M.Kom.
 Lembar Konsultasi : Pembimbing 2
 Tanggal Pertemuan Pertama : 15 Desember 2025

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
15-12-2025	<ul style="list-style-type: none"> Perbaiki Cover, Sesuai dengan Panduan Istilah Asing di Miringkan Konsistenkan Penulisan Lanjut Bab II 		BAB I (Revisi)
07-01-2026	<ul style="list-style-type: none"> Acc Bab I Penulisan Tabel Jangan Melebihi Batas Margin Perbaiki Kerangka Penelitian Konsistenkan Penulisan, Miringkan Semua Istilah Asing Lanjut Bab III 		BAB I (ACC)
10-01-2026	<ul style="list-style-type: none"> Acc Bab II Perbaiki Kerangka Kerja Penelitian dan Narasinya Lengkapi Keseluruhan 		BAB II (ACC)
12-01-2026	<ul style="list-style-type: none"> Acc Bab III Perbaiki Daftar Isi 		BAB III (ACC)
12-01-2026	Acc Keseluruhan		Seminar Proposal (ACC)
12-02-2026	<ul style="list-style-type: none"> Perbaiki Penulisan ASI Konsistenkan Penulisan Lanjut Bab V 		BAB IV (Revisi)
20-02-2026	<ul style="list-style-type: none"> Acc Bab IV Usahakan dalam 1 Halaman ada 2 Gambar Supaya Tidak Banyak Lembar yang Kosong Lanjut Bab VI 		BAB IV (ACC)
30-03-2026	<ul style="list-style-type: none"> Acc Bab V Kesimpulan Penelitian Berdasarkan Hasil Penelitian yang Didapat Lanjut Aplikasi 		BAB V (ACC)

PERTEMUAN/ TANGGAL	MATERI BAHASAN	PARAF DOSEN	KETERANGAN
05-04-2026	<ul style="list-style-type: none">• Acc Bab VI• Lengkapi Keseluruhan		BAB VI (ACC)
06-04-2026	Acc Aplikasi		Pengujian Alat/Aplikasi (ACC)
08-04-2026	Acc Keseluruhan		Seminar Hasil (ACC)
16-04-2026	Acc Keseluruhan		Sidang Meja Hijau (ACC)

Kisaran, 18 April 2026

Ka. Prodi Sistem Informasi

Nuzwati, M.Kom.
NIDN: 0101066701

DAFTAR RIWAYAT HIDUP



A. Identitas Pribadi

Nama Lengkap : MICA ADELLA
Tempat/ Tanggal Lahir : HESSA AIR GENTING, 27 – MEI - 2004
Jenis Kelamin : PEREMPUAN
Agama : ISLAM
Kebangsaan : INDONESIA
Alamat : HESSA AIR GENTING
No HP : 081376283825

B. Riwayat Pendidikan

1. SD NEGERI 114345 GUNUNG MELAYU (2010 – 2016)
2. MTS NEGERI 1 LABUHAN BATU UTARA (2016 – 2019)
3. MAS DARUL HIKMAH SEI DADAP (2019 – 2022)

Demikianlah daftar riwayat hidup ini diperbuat dengan sebenarnya.

Kisaran, 17 April 2026
Penulis,

MICA ADELLA
NIM: 222200331