



POLITEKNIK NEGERI SRIWIJAYA

JURUSAN TEKNIK KOMPUTER

Jalan Srijaya Negara, Palembang 30139

Telepon (0711) 353414 Fax (0711) 355918 E-mail : komputer@polsri.ac.id

Nomor : 832/PL6.1.15/AK/2023

16 Juni 2023

Lamp : 1 (dua) berkas

Perihal : Izin Pengambilan Data

Kepada Yth.
Wakil Direktur I
Politeknik Negeri Sriwijaya

Dengan Hormat,

Sesuai dengan Kurikulum Program D-III pada Politeknik Negeri Sriwijaya Jurusan Teknik Komputer bahwa Tugas Akhir (TA) merupakan mata kuliah wajib. Untuk itu, mahasiswa kami memerlukan data untuk penyusunan Tugas Akhir tersebut. Sehubungan dengan hal diatas, kami mohon agar dapat diberikan Izin dan membantu mahasiswa kami ini untuk mengumpulkan data Pemilihan Mahasiswa Berprestasi (Pilmapres). Adapun data-data yang dibutuhkan adalah sebagai berikut :

1. Data Prosedur Pendaftaran
2. Data Prosedur Pelaksanaan
3. Data Pengelolaan Penilaian
4. Data Excel Perhitungan Hasil Penilaian

Berikut daftar nama mahasiswa tersebut yang akan melaksanakan Tugas Akhir :

No.	Nama	NIM	Kelas	Judul Tugas Akhir
1.	Mutiara Ayu Dasilpha	062030701652	6CC	Penerapan Metode <i>Fuzzy Ahp</i> Dalam Sistem Pendukung Keputusan Aplikasi Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya
2.	Nyayu Yasmin Nailufar	062030701653	6CC	Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode <i>Fuzzy Simple Additive Weighting (Saw)</i>

Demikianlah surat izin pengambilan data ini kami buat, atas bantuan dan kerjasamanya kami ucapkan terima kasih.

Hormat Kami,
Ketua Jurusan Teknik Komputer,

Azwardi, S.T., M.T
NIP. 197005232005011004

LEMBAR DISPOSISI

Dia: **WAKIL DIREKTUR I**

Kepada: WADIR I Kabag. Adm. Akademik dan Mahasiswa
 WADIR II Kabag. Umum, Keuangan dan Kerjasama
 WADIR IV Ka. PIH
 Kepala Jurusan

di disposisi: untuk diketahui untuk didedahkan
 untuk diteliti untuk dipertimbangkan
 untuk disimpan sampaikan konsep jawaban
 untuk dimanfaatkan harap saya devakui
 harap tanggapan koordinasikan dengan
Sub. Hoord. Kemahasiswaan.

Agar ditomedin pengambilan data tsb.

[Signature]
20/06/23

Yth WDBK

- Mohon arahan, apakah dapat kita Acc terkait pengambilan data ini.
 - Dan mohon izin untuk mengarahkan mahasiswa tersebut untuk di arahkan ke UKM Mars.
- 4/7-23
Ruman. Silakan hubungi Sub. UKM Mars. dg Catherine Apitias yg sudah harus & serahkan ke Poltek via. Kemahasiswaan 23/06/23 *[Signature]*

Kepala Ketua UKM MARS (PANGBIH)

Mohon dibantu untuk pengambilan data yang dibutuhkan.
Agar berkoordinasi dg ketua Panitia dari UKM Mars / Pengambilan data tersebut.

14/June 2023.

[Signature]
Kaur. Kemahasiswaan.



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET DAN TEKNOLOGI
POLITEKNIK NEGERI SRIWIJAYA JURUSAN
TEKNIK KOMPUTER**

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Website : www.polsri.ac.id E-mail : info@polsri.ac.id



REKOMENDASI UJIAN TUGAS AKHIR

Pembimbing Laporan Tugas Akhir, memberikan rekomendasi ujian laporan tugas akhir kepada,

Nama Mahasiswa	:	Nyayu Yasmin Nailufar
NIM	:	062030701653
Jurusan/Program Studi	:	Teknik Komputer/D3 Teknik Komputer
Judul Tugas Akhir	:	Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode <i>Fuzzy Simple Additive Weighting</i> (Saw)

Mahasiswa tersebut telah memenuhi persyaratan dan dapat mengikuti Ujian Laporan Tugas Akhir, pada Tahun Akademik 2023/2024.


Palembang,


2023

Disetujui oleh,

Pembimbing I

Pembimbing II


Ir. Alan Novi Tompunu, S.T., M.T., IPM
NIP. 197611082000031002


Ica Admirani, S.Kom., M.Kom.
NIP. 19790328200502001



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN
RISET DAN TEKNOLOGI
POLITEKNIK NEGERI SRIWIJAYA**



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LEMBAR BIMBINGAN LAPORAN TUGAS AKHIR

Nama Mahasiswa	: Nyayu Yasmin Nailufar
NIM	: 062030701653
Jurusan/Program Studi	: Teknik Komputer/D3 Teknik Komputer
Dosen Pembimbing	: Ir. Alan Novi Tompunu, S.T., M.T., IPM.
Judul	: Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode Fuzzy Simple Additive Weighting (SAW).

NO	TANGGAL	URAIAN	PARAF PEMBIMBING
1.	28/02-2023	ACC judul	
2.	8/03-2023	Laporan Proposal Bab I, Bab II, Bab III, Bab IV dan Lampiran	
3.	17/03-2023	Proposal Disetujui	
4.	24/05-2023	Bab I - Perbaiki latar Belakang	
5.	29/05-2023	Bab I - Perbaiki kata awalan yg rancu pada batasan masalah, tujuan dan manfaat. Bab II - Tambah narasi tinjauan pustaka pada xompp - Uraikan cara pengutipan	
6.	15/06-2023	Bab I - Penelitian terdahulu dibuat dalam bentuk paragraf	
7.	5/06-2023	- ACC Bab I, Bab II, Bab III - Lanjut ke Bab IV dan V	
8.	20/06-2023	Revisi Bab IV dan Bab V	

9.	21/07 - 2023	Revisi Bab V dan aplikasi	
10.	26/07 - 2023	ACC dan direkomendasikan sidang	

Palembang, Juli 2023

Mengetahui,
Ketua Jurusan



Azwardi, S.T., M.T

NIP.197005232005011004



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LEMBAR BIMBINGAN LAPORAN TUGAS AKHIR

Nama Mahasiswa	: Nyayu Yasmin Nailufar
NIM	: 062030701653
Jurusan/Program Studi	: Teknik Komputer/D3 Teknik Komputer
Dosen Pembimbing	: Ica Admirani, S.Kom., M.Kom.
Judul	: Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode Fuzzy Simple Additive Weighting (SAW).

NO	TANGGAL	URAIAN	PARAF PEMBIMBING
1.	16-Mei-2023	- revisi bab 1, 2 dan 3	
2.	29-Mei-2023	- Revisi latar belakang - Perbaiki sitasi dan dapus - Perbaiki blok diagram disamakan dgn metode - Perbaiki perancangan database & web	
3.	7-Juni-2023	ACC bab 1, 2, 3 Lanjutan bab 4	
4.	20/Julii/2023	Revisi Aplikasi	
5.	26/7-2023	Revisi Aplikasi	
6.	31/7-2023	ACC Aplikasi Pembahasan dan tampilan disamakan kemungkinan metode yg dibahas	
7.	2/8-2023	- Perbaiki Pembahasan - Perbaiki Bab 5	
8.	4/8-2023	- ACC Laporan Akhir	

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Palembang, Juli 2023
Mengetahui,
Ketua Jurusan



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PELAKSANAAN REVISI UJIAN TUGAS AKHIR (TA)

Mahasiswa berikut,

Nama : Nyayu Yasmin Nailufar

NIM : 062030701653

Jurusan/Program Studi : Teknik Komputer/DIII-Teknik Komputer

Judul Tugas Akhir : Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode *Fuzzy Simple Additive Weighting* (SAW).

Telah melaksanakan revisi terhadap Laporan Tugas Akhir yang telah diujikan pada hari Selasa tanggal 8 bulan Agustus tahun 2023 Pelaksanaan revisi terhadap Laporan Tugas Akhir tersebut telah disetujui oleh Dosen Penguji yang memberikan revisi:



No.	Komentar	Nama Dosen Penguji *)	Tanggal	Tanda Tangan
1.	bsestijy	Azwardi, S.T., M.T.	14/8 - 2023	
2.	re@	Ir. A Bahri Joni Malyan, M.Kom.	15/8/2023	
3.	ck	Indarto, S.T., M.Cs.	16/8/23	
4.	oa	Ali Firdaus, S.Kom., M.Kom.	23/8-23	
5.	Acc	Ica Admirani, S.Kom., M.Kom.	14/8 - 2023	

Palembang, 8 Agustus 2023



Ketua Penguji

Azwardi, S.T., M.T.

NIP. 197005232005011004

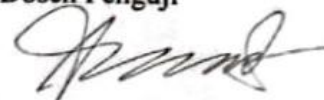
	KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI POLITEKNIK NEGERI SRIWIJAYA JURUSAN TEKNIK KOMPUTER Jalan Srijaya Negara, Palembang 30139 Telp. 0711-353414 Website : www.polsri.ac.id E-mail : info@polsri.ac.id	
	REVISI UJIAN TUGAS AKHIR	

Ruang : 1
 Dosen Penguji : Azwardi, S.T., M.T.
 Nama Mahasiswa : Nyayu Yasmin Nailufar
 NIM : 062030701653
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 Judul Tugas Akhir : Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode *Fuzzy Simple Additive Weighting (SAW)*.

No	Uraian Revisi	Paraf
		

Palembang, 8 Agustus 2023

Dosen Penguji



Azwardi, S.T., M.T.

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Nama Mahasiswa : Nyayu Yasmin Nailufar
NIM : 062030701653
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Judul Tugas Akhir : Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode *Fuzzy Simple Additive Weighting* (SAW).

No	Uraian Revisi	Paraf
	/	

Palembang, 8 Agustus 2023

Dosen Penguji

Ir. A Bahri Joni Malyan, M.Kom.

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REVISI UJIAN TUGAS AKHIR

Ruang : 1
Dosen Penguji : Indarto, S.T., M.Cs.
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NIM : 062030701653
Jurusan/Program Studi : Teknik Komputer/D3 Teknik Komputer
Judul Tugas Akhir : Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode *Fuzzy Simple Additive Weighting* (SAW).

No	Uraian Revisi	Paraf

Palembang, 8 Agustus 2023

Dosen Penguji

Indarto, S.T., M.Cs.

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KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI

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REVISI UJIAN TUGAS AKHIR

Ruang : 1
Dosen Penguji : Ali Firdaus, S.Kom., M.Kom.
Nama Mahasiswa : Nyayu Yasmin Nailufar
NIM : 062030701653
Jurusan/Program Studi : Teknik Komputer/D3 Teknik Komputer
Judul Tugas Akhir : Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode *Fuzzy Simple Additive Weighting* (SAW).

No	Uraian Revisi	Paraf
	Perbaiki Caporan !	

Palembang, 8 Agustus 2023

Dosen Penguji

Ali Firdaus, S.Kom., M.Kom.

NIP. 197010112001121001



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI

POLITEKNIK NEGERI SRIWIJAYA

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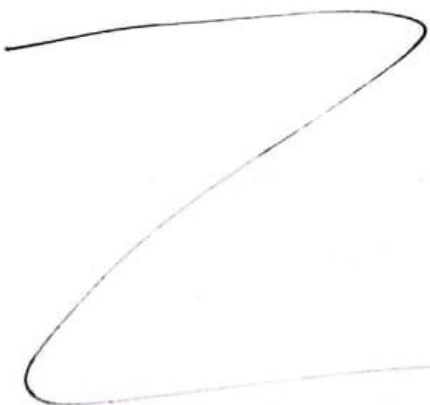

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REVISI UJIAN TUGAS AKHIR

Ruang : 1
Dosen Penguji : Ica Admirani, S.Kom., M.Kom.
Nama Mahasiswa : Nyayu Yasmin Nailufar
NIM : 062030701653
Jurusan/Program Studi : Teknik Komputer/D3 Teknik Komputer
Judul Tugas Akhir : Aplikasi Sistem Pendukung Keputusan Pada Pemilihan Mahasiswa Berprestasi Di Politeknik Negeri Sriwijaya Dengan Metode *Fuzzy Simple Additive Weighting (SAW)*.

No	Uraian Revisi	Paraf
		

Palembang, 8 Agustus 2023

Dosen Penguji

Ica Admirani, S.Kom., M.Kom.

NIP. 19790328200502001

Config.php

```
<?php
$config["server"] = 'localhost';
$config["username"] = 'root';
$config["password"] = "";
$config["database_name"] = 'spk_pilmapres';
```

db.php

```
<?php
/**
 * Class database MySQL
 */
class DB
{
    /**
     * menyimpan koneksi database
     */
    var $conn = null;
    /**
     * id auto increment
     */
    public $insert_id = 0;
    /**
     * membuat koneksi ke database
     * @param string $host Alamat host/server
     * MySQL
     * @param string $username Username
     * server MySQL
     * @param string $passwd Password server
     * MySQL
     * @param string $dbname Nama database
     * MySQL
     */
    public function __construct($host,
        $username, $passwd, $dbname)
    {
        $this->conn = mysqli_connect($host,
            $username, $passwd, $dbname);
    }
    /**
     * Mengeksekusi perintah SQL
     * @param string $sql Perintah SQL yang
    ingin dieksekusi
     * @return mysqli_result Hasil query
     */
    public function query($sql)
    {
        $query = mysqli_query($this->conn, $sql)
        or die('<pre>Error mysqli_query: ' .
            mysqli_error($this->conn) . '<br />' . $sql .
            '</pre>');

        //jika query mengandung perintah insert
        atau replace
```

```
        if (preg_match("/^(insert|replace)\s+/i",
            $sql)) {
            $this->insert_id = @$this->conn-
                >insert_id;
        }
        return $query;
    }
    public function insert($table, $fields)
    {
        $this->query("INSERT INTO $table (" .
            implode(',', array_keys($fields)) . ")
            VALUES (" . implode("','", $fields) .
            ")");
    }
    public function update($table, $fields, $id)
    {
        $arr = array();
        foreach ($fields as $key => $val) {
            $arr[$key] = "$key='$val'";
        }
        $this->query("UPDATE $table SET " .
            implode(", ", $arr) . " WHERE " . key($id) .
            " = " . current($id) . " ");
    }
    public function multi_query($table, $data)
    {
        $values = array();
        $fields = array_keys(current($data));
        foreach ($data as $key => $val) {
            $values[] = "(" . implode("','", $val) .
            ")";
        }
        $indeks = 0;
        $max = 200;
        $arr_values = array();
        foreach ($values as $key => $val) {
            $arr_values[$indeks][] = $val;
            if (count($arr_values[$indeks]) >=
                $max)
                $indeks++;
        }
        foreach ($arr_values as $key => $val) {
            $this->query("INSERT INTO $table (" .
                implode(", ", $fields) . ") VALUES " .
                implode("(", $val));
        }
    }
}
```

```

    }
    /**
     * Mengambil 1 baris data ke dari perintah
    SQL
     * @param string $sql Perintah SQL
     * @return object Satu baris data
     */
    public function get_row($sql)
    {
        $query = $this->query($sql);
        return mysqli_fetch_object($query);
    }
    /**
     * Mengambil data ke dari perintah SQL
     * @param string $sql Perintah SQL
     * @return array Data dalam bentuk array
    object
     */
    public function get_results($sql)
    {
        $query = $this->query($sql);

```

```

        $arr = array();
        while ($row =
    mysqli_fetch_object($query)) {
            $arr[] = $row;
        }
        return $arr;
    }
    /**
     * Mengambil 1 kolom data ke dari perintah
    SQL
     * @param string $sql Perintah SQL
     * @return object Satu kolom data
     */
    public function get_var($sql)
    {
        $query = $this->query($sql);
        $row = mysqli_fetch_row($query);
        if ($row)
            return $row[0];
    }
}

```

Login.php

```

<!DOCTYPE html>
<html lang="en" class="h-100">
<head>
    <meta charset="utf-8">
    <meta name="viewport"
    content="width=device-width, initial-
    scale=1, shrink-to-fit=no">
    <link rel="icon"
    href="assets/img/logo.png" />
    <title>SPK PILMAPRES</title>
    <link href="assets/css/sb-admin-2.min.css"
    rel="stylesheet">
    <link href="assets/fontawesome-
    free/css/all.min.css" rel="stylesheet">
    <script
    src="assets/js/jquery.min.js"></script>
    <script
    src="assets/js/bootstrap.bundle.min.js"></scri
    pt>
    <script src="assets/js/highcharts.js"></script>
    <link
    href="https://cdn.jsdelivr.net/npm/bootstrap
    @5.3.1/dist/css/bootstrap.min.css"
    rel="stylesheet"
    integrity="sha384-
    4bw+/aepP/YC94hEpVNVgiZdgIC5+VKNB
    QNGCHeKRQN+PtmoHDEXuppvnDJzQIu9
    "crossorigin="anonymous">
</head>
<body class="bg-success-subtle p-2 text-dark
    bg-opacity-25 h-100" >

```

```

<div class="container d-flex h-100">
<div class="row align-items-center w-100">
<div class="col-md-4 mx-auto">
<form class="form-signin"
    action="?m=login" method="post">
<div class="card card-info">
<div class="card-header">
<div class="text-center font-weight-bold text-
    success">Sistem Pendukung Keputusan
    Pemilihan Mahasiswa Berprestasi Politeknik
    Negeri Sriwijaya</div>
</div>
<div class="card-body">
<?php if ($_POST) include 'aksi.php' ?>
<div class="text-center mb-3">

</div>
<div class="mb-3 bg-success-subtle">
<input type="text" class="form-control bg-
    success-subtle" placeholder="Username"
    name="user" autofocus autocomplete="off"
    />
</div>
<div class="mb-0 bg-success-subtle">
<input type="password" class="form-control
    bg-success-subtle" placeholder="Password"
    name="pass" />
</div>
</div>
<div class="card-footer">

```

```

<button class="btn btn-success w-100"
type="submit"><i class="fa fa-right-to-
bracket"></i> Masuk</button>
</div>
</div>
</form>
</div></div></div>
</body>
<script

```

Password.php

```

<div class="page-header text-success">
  <h1>Ubah Password</h1>
</div>
<div class="row">
  <div class="col-sm-5">
    <?php if ($_POST) include 'aksi.php' ?>
    <form method="post"
action="?m=password&act=password_ubah"
>
      <div class="form-group">
        <label>Password Lama <span
class="text-danger">*</span></label>
        <input class="form-control"
type="password" name="pass1" />
      </div>
      <div class="form-group">
        <label>Password Baru <span
class="text-danger">*</span></label>

```

index.php

```

<?php
include 'functions.php';
if (!_session('login'))
  header('location:login.php');
?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible"
content="IE=edge">
  <meta name="viewport"
content="width=device-width, initial-scale=1,
shrink-to-fit=no">
  <link rel="icon" type="image/png"
href="assets/img/logo.png">
  <title>SPK PILMAPRES</title>
  <!-- Custom fonts for this template-->
  <link href="assets/vendor/fontawesome-
free/css/all.min.css" rel="stylesheet"
type="text/css">
  <link
href="https://fonts.googleapis.com/css?family=

```

```

src="https://cdn.jsdelivr.net/npm/bootstrap
@5.3.1/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
HwwvtgBNo3bZJJLYd8oVXjrBZt8cqVSpe
BNS5n7C8IVInixGAoxmnlMuBnhbgrkm"
crossorigin="anonymous">
</script>
</html>

```

```

  <input class="form-control"
type="password" name="pass2" />
</div>
  <div class="form-group">
    <label>Konfirmasi Password Baru
<span class="text-danger">*</span></label>
    <input class="form-control"
type="password" name="pass3" />
  </div>
  <div class="form-group">
    <button class="btn btn-
success"><span class="fa fa-save"></span>
Simpan</button>
  </div>
</form>
</div>
</div>

```

```

Nunito:200,200i,300,300i,400,400i,600,600i,7
00,700i,800,800i,900,900i" rel="stylesheet">
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5
.3.1/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
4bw+/aepP/YC94hEpVNVgiZdgIC5+VKNBQ
NGCHeKRQN+PtmoHDEXuppvnDJzQIu9"
crossorigin="anonymous">
  <!-- Custom styles for this template-->
  <link href="assets/css/sb-admin-2.min.css"
rel="stylesheet">
  <link
href="assets/vendor/select2/css/select2.min.css
" rel="stylesheet">
  <link href="assets/vendor/select2-
bootstrap4-theme/select2-bootstrap4.min.css"
rel="stylesheet">
  <style>
    .sidebar .sidebar-brand {
      font-size: 0.8rem;
    }
    @media(min-width:768px) {

```



```

        #content-wrapper {
            position: inherit;
            margin: 0 0 224px;
            /* padding: 52px 0 0 30px; */
            /* for fixed menu */
            /*padding: 0 30px;*/
            border-left: 1px solid #e7e7e7;
        }
    }
</style>
<style>
    .table-responsive {
        max-height: 450px;
        overflow-y: auto;
    }
</style>
</head>
<body id="page-top">
    <!-- Page Wrapper -->
    <div id="wrapper">
        <!-- Sidebar -->
        <ul class="navbar-nav bg-gradient-success sidebar fixed-top sidebar-dark accordion" id="accordionSidebar">
            <!-- Sidebar - Brand -->
            <a class="sidebar-brand d-flex align-items-center justify-content-center" href="#">
                <div class="sidebar-brand-icon">
                    
                </div>
                <div class="sidebar-brand-text mx-3">SPK PILMAPRES</div>
            </a>
            <!-- Divider -->
            <hr class="sidebar-divider my-1">
            <!-- Nav Item - Dashboard -->
            <?php if ( $_session("login") ) : ?>
            <li class="nav-item">
                <a class="nav-link" href="?m=home">
                    <i class="fas fa-fw fa-tachometer-alt"></i>
                    <span>Dashboard</span></a>
                </li>
                <li class="nav-item">
                    <a class="nav-link" href="?m=kriteria">
                        <i class="fas fa-fw fa-clipboard-list"></i>
                        <span>Kriteria</span></a>
                    </li>
                    <li class="nav-item">
                        <a class="nav-link" href="?m=subkriteria">
                            <i class="fas fa-fw fa-clipboard-list"></i>
                            <span>Sukriteria</span></a></li>
                    <li class="nav-item">
                        <a class="nav-link" href="?m=alternatif">
                            <i class="fas fa-fw fa-address-book"></i>
                            <span>Alternatif</span></a>
                    </li>
                    <li class="nav-item"><a class="nav-link" href="?m=rel_alternatif">
                        <i class="fas fa-fw fa-award"></i>
                        <span>Penilaian</span></a>
                    </li>
                    <li class="nav-item"><a class="nav-link" href="?m=fsaw">
                        <i class="fas fa-fw fa-calculator"></i>
                        <span>F-SAW</span></a>
                    </li>
                    <li class="nav-item"><a class="nav-link" href="?m=laporan">
                        <i class="fas fa-fw fa-calendar"></i>
                        <span>Laporan</span></a>
                    </li>
                <?php else : ?>
                <!-- <li class="nav-item">
                    <a class="nav-link" href="?m=home">
                        <i class="fas fa-fw fa-tachometer-alt"></i><span>Home</span></a>
                    </li> -->
                <li class="nav-item">
                    <a class="nav-link" href="?m=login">
                        <i class="fas fa-fw fa-sign-in-alt"></i><span>Login</span></a>
                    </li>
                <?php endif ?>
                <!-- Divider -->
                <hr class="sidebar-divider d-none d-md-block">
                <!-- Sidebar Toggler (Sidebar) -->
                <div class="text-center d-none d-md-inline">
                    <button class="rounded-circle border-0" id="sidebarToggle"></button>
                </div>
            </ul>
            <!-- End of Sidebar -->
            <!-- Content Wrapper -->
            <div id="content-wrapper" class="d-flex flex-column">
                <!-- Main Content -->
                <div id="content" style="min-height: 600px;">
                    <!-- Topbar -->
                    <nav class="navbar navbar-expand navbar-light bg-white topbar mb-4 static-top shadow">
                        <!-- Sidebar Toggler (Topbar) -->
                        <button id="sidebarToggleTop" class="btn btn-link d-md-none rounded-circle mr-3">
                            <i class="fa fa-bars"></i>
                        </button>
                        <!-- Topbar Navbar -->
                        <ul class="navbar-nav ml-auto">

```

```

<!-- Nav Item - Search Dropdown (Visible
Only XS) -->
<li class="nav-item dropdown no-arrow d-sm-
none">
<a class="nav-link dropdown-toggle" href="#"
id="searchDropdown" role="button" data-
toggle="dropdown" aria-haspopup="true" aria-
expanded="false">
<i class="fas fa-search fa-fw"></i>
</a>
<!-- Dropdown - Messages -->
<div class="dropdown-menu dropdown-menu-
right p-3 shadow animated--grow-in" aria-
labelledby="searchDropdown">
<form class="form-inline mr-auto w-100
navbar-search">
<div class="input-group">
<input type="text" class="form-control bg-
light border-0 small" placeholder="Search
for..." aria-label="Search" aria-
describedby="basic-addon2">
<div class="input-group-append">
<button class="btn btn-primary"
type="button"><i class="fas fa-search fa-
sm"></i></button>
</div>
</div>
</form>
</div>
</li>
<?php if ($_session('login')) : ?>
<!-- Nav Item - User Information -->
<li class="nav-item dropdown no-arrow"><a
class="nav-link dropdown-toggle" href="#"
id="userDropdown" role="button" data-
toggle="dropdown" aria-haspopup="true" aria-
expanded="false"><span class="mr-2 d-none
d-lg-inline text-gray-600 small"><?=
_session('login') ?></span>
</
a>
<!-- Dropdown - User Information -->
<div class="dropdown-menu dropdown-menu-
right shadow animated--grow-in" aria-
labelledby="userDropdown">
<a class="dropdown-item"
href="?m=password">
<i class="fas fa-user fa-sm fa-fw mr-2 text-
gray-400"></i>Password</a>
<a class="dropdown-item" href="aksi.p
hp?act=logout">
<i class="fas fa-sign-out-alt fa-sm fa-fw mr-2
text-gray-400"></i>Logout</a>
</div>
</li>
<?php endif ?>
</ul>
</nav>
<!-- End of Topbar -->
<!-- Begin Page Content -->
<div class="container-fluid">
<?php
if (!_session('login') && !in_array($mod,
array('home', 'login', 'konsultasi', 'kriteria',
'subkriteria', 'alternatif')))
$mod = 'login';
if (file_exists($mod . '.php'))
include $mod . '.php';
else
include 'home.php';
?>
</div>
<!-- /.container-fluid -->
</div>
<!-- End of Main Content -->
<!-- Footer -->
<footer class="sticky-footer bg-white"><div
class="container my-auto"><div
class="copyright text-center my-
auto"><span>SPK PILMAPRES POLSRI BY
MUTYAS &copy; <?= date('Y') ?></span>
</div>
</div>
</div>
</div>
<!-- End of Footer -->
</div>
<!-- End of Content Wrapper -->
</div>
<!-- End of Page Wrapper -->
<!-- Scroll to Top Button-->
<a class="scroll-to-top rounded" href="#page-
top"><i class="fas fa-angle-up"></i></a>
<!-- Bootstrap core JavaScript-->
<script
src="assets/vendor/jquery/jquery.min.js"></scr
ipt>
<script
src="assets/vendor/bootstrap/js/bootstrap.bundl
e.min.js"></script>
<!-- Core plugin JavaScript-->
<script src="assets/vendor/jquery-
easing/jquery.easing.min.js"></script>
<!-- Custom scripts for all pages-->
<script src="assets/js/sb-admin-
2.min.js"></script>

```



```

        </div>
        <div class="col-auto">
            <i class="fas fa-address-book
fa-2x text-gray-300"></i>
        </div>
    </div>
</div>
</div>
</div>
</div>
<!-- Earnings (Monthly) Card Example -->
<div class="col-xl-4 col-md-6 mb-4">
    <div class="card border-left-success
shadow h-100 py-4">
        <div class="card-body">
            <div class="row no-gutters align-
items-center">
                <div class="col mr-2">
                    <div class="text-xx font-weight-
bold text-success text-uppercase mb-
1">Subkriteria
                </div>
                <div class="h2 mb-2 font-weight-bold text-
gray-800"><?= $db->get_var("SELECT
COUNT(*) FROM tb_subkriteria") ?></div>
            </div>
            <a class="btn btn-sm btn-success"
href="?m=subkriteria">Selengkapnya</a>
        </div>
    </div>
    <div class="col-auto">
        <i class="fas fa-clipboard-list fa-2x text-gray-
300"></i></div>
    </div>
</div>
</div>
</div>
</div>
<!-- TABEL HASIL FSAW -->
<!-- DIAGRAM FSAW -->
<div class="row">
    <div class="col-md-12">
        <div class="card">
            <div class="card-header bg-success
text-white">
                <strong>Hasil Fuzzy SAW</strong>
            </div>
            <div class="card-body">
                <div id="container2"></div>
            </div>
        </div>
    </div>
</div>
</div>
<?php
$categories = array();
$data_fsaw = array();

```

```

        foreach ($ALTERNATIF as $row) {
            $categories[$row->kode_alternatif] =
$row->nama_alternatif;
            $data_fsaw[$row->kode_alternatif] =
$row->fsaw_total * 1;
        }
        $categories =
json_encode(array_values($categories));
        $data_fsaw =
json_encode(array_values($data_fsaw));
        ?>
<script>
    Highcharts.chart('container2', {
        chart: {
            type: 'column'
        },
        colors: ['#B4E2C4'],
        series: [{
            name: 'Seri 1',
            data: [5, 10, 7]
        }],
        title: {
            text: ""
        },
        subtitle: {
            text: ""
        },
        xAxis: {
            categories: <?= $categories ?>,
            crosshair: true
        },
        yAxis: {
            min: 0,
            title: {
                text: 'Total'
            }
        },
        tooltip: {
            headerFormat: '<span style="font-
size:10px">{point.key}</span><table>',
            pointFormat: '<tr><td
style="color:{series.color};padding:0">{series.
name}: </td>' +
                '<td
style="padding:0"><b>{point.y:.3f}</b></td>
</tr>',
            footerFormat: '</table>',
            shared: true,
            useHTML: true
        },
        plotOptions: {
            column: {
                pointPadding: 0.2,
                borderWidth: 0
            }
        }
    });
</script>

```



```

    }
  },
  series: [{
    name: 'Total',
    data: <?= $data_fsaw ?>
  }]
});
</script>
</div>
</div>

```

Kriteria.php

```

<div class="page-header text-success">
  <h1>Kriteria</h1>
</div>
<?= show_msg() ?>
<div class="card mb-3">
  <div class="card-header bg-success-subtle">
    <form class="form-inline">
      <input type="hidden" name="m"
value="kriteria" />
      <div class="mr-1">
        <input class="form-control"
type="text" placeholder="Pencarian. . ."
name="q" value="<?= _get('q') ?>" />
      </div>
      <div class="mr-1">
        <button class="btn btn-
success"><span class="fa fa-sync"></span>
Refresh</a>
      </div>
      <div class="mr-1" <?= is_hidden() ?>>
        <a class="btn btn-primary"
href="?m=kriteria_tambah"><span class="fa
fa-plus"></span> Tambah</a>
      </div>
    </form>
  </div>
  <div class="table-responsive">
    <table class="table table-bordered table-
hover table-striped m-0">
      <thead>
        <tr class="nw">
          <th>Kode</th>
          <th>Nama</th>
          <th>Bobot</th>
          <th <?= is_hidden() ?>>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->bobot ?></td>
    <td class="nw" <?= is_hidden()
?>>
      <a class="btn btn-sm btn-
warning"
href="?m=kriteria_ubah&ID=<?= $row-
>kode_kriteria ?>"><span class="fa fa-
edit"></span></a>
      <a class="btn btn-sm btn-
danger"
href="aksi.php?act=kriteria_hapus&ID=<
?= $row->kode_kriteria ?>" onclick="return
confirm('Hapus data?')"><span class="fa
trash"></span></a>
    </td>
  </tr>
<?php endforeach;
?>
</table>
</div>

```

tambah_kriteria.php

```

<div class="page-header text-success">
  <h1>Tambah Kriteria</h1>
</div>
<div class="row">
  <div class="col-sm-6">
    <?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" 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>Bobot <span class="text-  
danger"></span></label>
        <input class="form-control"
type="text" name="bobot" value="<?=  
set_value('bobot') ?>" />
    </div>
    <div class="form-group">
        <button class="btn btn-  
primary"><span class="fa fa-save"></span>  
Simpan</button>
        <a class="btn btn-danger"
href="?m=kriteria"><span class="fa fa-arrow-  
left"></span> Kembali</a>
    </div>
</form>
</div>
</div>

```

ubah_kriteria.php

```

<?php
$row = $db->get_row("SELECT * FROM  
tb_kriteria WHERE  
kode_kriteria=$_GET[ID]");
?>
<div class="page-header text-success">
    <h1>Ubah Kriteria</h1>
</div>
<div class="row">
    <div class="col-sm-6">
        <?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="<?=  
>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>Bobot <span class="text-  
danger"></span></label>

```

```

        <input class="form-control"
type="text" name="bobot" value="<?=  
set_value('bobot', $row->bobot) ?>" />
    </div>
    <div class="form-group">
        <button class="btn btn-  
primary"><span class="fa fa-save"></span>  
Simpan</button>
        <a class="btn btn-danger"
href="?m=kriteria"><span class="fa fa-arrow-  
left"></span> Kembali</a>
    </div>
</form>
</div>
</div>

```

Subkriteria.php

```

<div class="page-header text-success">
    <h1>Subkriteria</h1>
</div>
<?=  
show_msg() ?>
<div class="card mb-3">
    <div class="card-header bg-success-subtle">
        <form class="form-inline">
            <input type="hidden" name="m"
value="subkriteria" />
            <div class="mr-1">
                <input class="form-control"
type="text" name="q" value="<?=  
_get('q') ?>"
placeholder="Pencarian...">
            </div>
            <div class="mr-1">
                <button class="btn btn-  
success"><span class="fa fa-sync"></span>  
Refresh</button>
            </div>
            <div class="mr-1" <?=  
is_hidden() ?>>
                <a class="btn btn-primary"
href="?m=subkriteria_tambah"><span  
class="fa fa-plus"></span> Tambah</a>
            </div>
        </form>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-  
hover table-striped m-0">
            <thead>
                <tr>
                    <th>Kode</th>
                    <th>Kriteria</th>
                    <th>Nama</th>
                    <th>Atribut</th>
                    <th>Nilai</th>
                    <th <?=  
is_hidden() ?>>Aksi</th>

```

```

        </tr>
    </thead>
    <?php
    $q = esc_field(_get('q'));
    $rows = $db->get_results("SELECT *
FROM tb_subkriteria c INNER JOIN
tb_kriteria k ON
k.kode_kriteria=c.kode_kriteria WHERE
k.nama_kriteria LIKE '%$q%' ORDER BY
k.kode_kriteria, kode_subkriteria");
    foreach ($rows as $row) : ?>
    <tr>
    <td><?=$row->kode_subkriteria ?></td>
    <td><?=$row->nama_kriteria ?></td>
    <td><?=$row->nama_subkriteria ?></td>
    <td><?=$row->atribut ?></td>
    <td><?=$row->nilai ?></td>
    <td <?=$is_hidden() ?>>
    <a class="btn btn-sm btn-warning"
href="?m=subkriteria_ubah&ID=<?=$row-
>kode_subkriteria ?>"><span class="fa fa-
edit"></span></a>
    <a class="btn btn-sm btn-danger"
href="aksi.php?act=subkriteria_hapus&ID=<?=$row->kode_subkriteria ?>" onclick="return
confirm('Hapus data?')"><span class="fa fa-
trash"></span></a>
        </td>
    </tr>
    <?php endforeach ?>
    </table>
    </div>
</div>

```

tambah_subkriteria.php

```

<div class="page-header text-success">
    <h1>Tambah Subkriteria</h1>
</div>
<div class="row">
    <div class="col-sm-6">
        <?php if ($_POST) include 'aksi.php' ?>
        <form method="post">
            <div class="form-group">
                <label>Kode <span class="text-
danger">*</span></label>
                <input class="form-control"
type="text" name="kode_subkriteria"
value="<?=$set_value('kode_subkriteria',
kode_oto('kode_subkriteria', 'tb_subkriteria',
'S', 2)) ?>" />
            </div>
            <div class="form-group">
                <label>Kriteria <span class="text-
danger">*</span></label>

```

```

                <select class="form-control"
name="kode_kriteria"><?=$
get_kriteria_option(set_value('kode_kriteria'))
?></select>
            </div>
            <div class="form-group">
                <label>Nama <span class="text-
danger">*</span></label>
                <input class="form-control"
type="text" name="nama_subkriteria"
value="<?=$set_value('nama_subkriteria') ?>"
/>
            </div>
            <div class="form-group">
                <label>Atribut <span class="text-
danger">*</span></label>
                <select class="form-control" name="atribut">
                <option value="">&nbsp;</option>
                <?=$get_atribut_option(set_value('atribut')) ?>
            </select>
            </div>
            <div class="form-group">
                <label>Nilai <span class="text-
danger">*</span></label>
                <input class="form-control" type="text"
name="nilai" value="<?=$set_value('nilai') ?>"
/>
            </div>
            <div class="form-group">
                <button class="btn btn-primary"><span
class="fa fa-save"></span> Simpan</button>
                <a class="btn btn-danger"
href="?m=subkriteria"><span class="fa fa-
arrow-left"></span> Kembali</a>
            </div>
        </form>
    </div>
</div>

```

ubah_subkriteria.php

```

<?php
$row = $db->get_row("SELECT * FROM
tb_subkriteria WHERE
kode_subkriteria='$_GET[ID]'");
?>
<div class="page-header text-success">
    <h1>Ubah Subkriteria</h1>
</div>
<div class="row">
    <div class="col-sm-6">
        <?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_subkriteria" value="<?=$row-
>kode_subkriteria ?>" readonly />
</div>
<div class="form-group">
<label>Kriteria <span class="text-
danger">*</span></label>
<select class="form-control"
name="kode_kriteria"><?=$
get_kriteria_option(set_value('kode_kriteria',
$row->kode_kriteria)) ?></select>
</div>
<div class="form-group">
<label>Nama <span class="text-
danger">*</span></label>
<input class="form-control" type="text"
name="nama_subkriteria" value="<?=$
set_value('nama_subkriteria', $row-
>nama_subkriteria) ?>" />
</div>
<div class="form-group">
<label>Atribut <span class="text-
danger">*</span></label>
<select class="form-control" name="atribut">
<option value="">&nbsp;</option>
<?=$ get_atribut_option(set_value('atribut',
$row->atribut)) ?>
</select>
</div>
<div class="form-group"><label>Nilai <span
class="text-danger">*</span></label>
<input class="form-control" type="text"
name="nilai" value="<?=$ set_value('nilai',
$row->nilai) ?>" />
</div>
<div class="form-group">
<button class="btn btn-primary"><span
class="fa fa-save"></span> Simpan</button>
<a class="btn btn-danger"
href="?m=subkriteria"><span class="fa fa-
arrow-left"></span> Kembali</a>
</div></form>
</div></div>

```

Alternatif.php

```

<div class="page-header text-success">
<h1>Alternatif</h1>
</div>
<?=$ show_msg() ?>
<div class="card mb-3">
<div class="card-header bg-success-subtle">
<form class="form-inline">

```

```

<input type="hidden" name="m"
value="alternatif" />
<div class="mr-1">
<input class="form-control"
type="text" placeholder="Pencarian. . ."
name="q" value="<?=$ _get('q') ?>" />
</div>
<div class="mr-1">
<button class="btn btn-success"><span
class="fa fa-sync"></span> Refresh</button>
</div>
<div class="mr-1" <?=$ is_hidden() ?>>
<a class="btn btn-primary"
href="?m=alternatif_tambah"><span class="fa
fa-plus"></span> Tambah</a>
</div>
</form>
</div>
<div class="table-responsive">
<table class="table table-bordered table-
hover table-striped m-0">
<thead>
<tr>
<th>No</th>
<th>Kode</th>
<th>NIM</th>
<th>Nama</th>
<th>Keterangan</th>
<th <?=$ is_hidden() ?>>Aksi</th>
</tr>
</thead>
<?php
$q = esc_field(_get('q'));
$rows = $db->get_results("SELECT *
FROM tb_alternatif WHERE kode_alternatif
LIKE '%$q%' OR nama_alternatif LIKE
'%$q%' ORDER BY kode_alternatif");
$no = 0;
foreach ($rows as $row) : ?>
<tr>
<td><?=$ ++$no ?></td>
<td><?=$ $row->kode_alternatif ?></td>
<td><?=$ $row->nim ?></td>
<td><?=$ $row->nama_alternatif ?></td>
<td><?=$ $row->keterangan ?></td>
<td <?=$ is_hidden() ?>>
<a class="btn btn-sm btn-warning"
href="?m=alternatif_ubah&ID=<?=$ $row-
>kode_alternatif ?>"><span class="fa fa-
edit"></span></a>
<a class="btn btn-sm btn-danger"
href="aksi.php?act=alternatif_hapus&ID=<?=$
$row->kode_alternatif ?>" onclick="return

```

```
confirm('Hapus data?')"><span class="fa fa-
trash"></span></a>
        </td>
    </tr>
    <?php endforeach ?>
</table>
</div>
</div>
```

tambah_alternatif.php

```
<div class="page-header text-success">
    <h1>Tambah Alternatif</h1>
</div>
<div class="row">
    <div class="col-sm-6">
        <?php if ($_POST) include 'aksi.php' ?>
        <form method="post"
        enctype="multipart/form-data">
            <div class="form-group">
                <label>Kode <span class="text-
                danger">*</span></label>
                <input class="form-control" type="text"
                name="kode_alternatif" value="<?=>
                set_value('kode_alternatif',
                kode_oto('kode_alternatif', 'tb_alternatif', 'A',
                3)) ?>" />
            </div>
            <div class="form-group">
                <label>NIM <span class="text-danger">*</span>
                </label><input class="form-control"
                type="text" name="nim" value="<?=>
                set_value('nim') ?>" /></div>
            <div class="form-group">
                <label>Nama Alternatif <span class="text-
                danger">*</span></label><input class="form-
                control" type="text" name="nama_alternatif"
                value="<?=> set_value('nama_alternatif') ?>" />
            </div>
            <div class="form-group">
                <label>Keterangan </label>
                <textarea class="form-control editor"
                name="keterangan"><?=>
                set_value('keterangan') ?></textarea>
            </div>
            <div class="form-group">
                <button class="btn btn-primary"><span
                class="fa fa-save"></span> Simpan</button>
                <a class="btn btn-danger"
                href="?m=alternatif"><span class="fa fa-
                arrow-left"></span> Kembali</a>
            </div>
        </form>
    </div>
</div>
```

ubah_alternatif.php

```
<?php
$row = $db->get_row("SELECT * FROM
tb_alternatif WHERE
kode_alternatif='$_GET[ID]'");
?>
<div class="page-header text-success">
    <h1>Ubah Alternatif</h1>
</div>
<div class="row">
    <div class="col-sm-6">
        <?php if ($_POST) include 'aksi.php' ?>
        <form method="post"
        enctype="multipart/form-data">
            <div class="form-group">
                <label>Kode <span class="text-
                danger">*</span></label>
                <input class="form-control" type="text"
                name="kode_alternatif" readonly="readonly"
                value="<?=$row->kode_alternatif ?>" />
            </div>
            <div class="form-group">
                <label>NIM <span class="text-
                danger">*</span></label>
                <input class="form-control" type="text"
                name="nim" value="<?=> set_value('nim',
                $row->nim) ?>" />
            </div>
            <div class="form-group">
                <label>Nama Alternatif <span class="text-
                danger">*</span></label>
                <input class="form-control" type="text"
                name="nama_alternatif" value="<?=>
                set_value('nama_alternatif', $row-
                >nama_alternatif) ?>" />
            </div>
            <div class="form-group">
                <label>Keterangan </label>
                <textarea class="form-control editor"
                name="keterangan"><?=> set_value('keterangan'
                , $row->keterangan) ?></textarea>
            </div>
            <div class="form-group">
                <button class="btn btn-primary"><span
                class="fa fa-save"></span> Simpan</button>
                <a class="btn btn-danger"
                href="?m=alternatif"><span class="fa fa-
                arrow-left"></span> Kembali</a>
            </div>
        </form>
    </div>
</div>
```

rel_alternatif.php

```
<div class="page-header text-success">
  <h1>Nilai Bobot Alternatif</h1>
</div>
<div class="card mb-3">
  <div class="card-header bg-success-subtle">
    <form class="form-inline">
      <input type="hidden" name="m"
value="rel_alternatif" />
      <div class="mr-1">
        <input class="form-control"
type="text" name="q" value="<?=$_get('q') ?>"
placeholder="Pencarian..." />
      </div>
      <div class="mr-1">
<button class="btn btn-success"><span
class="fa fa-sync"></span> Refresh</a>
      </div>
    </form>
  </div>
  <div class="table-responsive">
    <table class="table table-bordered table-
hover table-striped m-0">
      <thead>
        <tr>
          <th>Kode</th>
          <th>Nama Alternatif</th>
<?php foreach ($SUBKRITERIA as $key =>
$val) : ?>
        <th><?=$val->nama_subkriteria ?></th>
<?php endforeach ?>
        <th>Aksi</th>
      </tr>
      </thead>
      <tbody>
        <?php
          $q = esc_field($_get('q'));
          $rows = $db->get_results("SELECT * FROM
tb_alternatif WHERE kode_alternatif LIKE
'%"$q%" OR nama_alternatif LIKE '%"$q%" OR
keterangan LIKE '%"$q%"' BY
kode_alternatif"); $rel_alternatif =
get_rel_alternatif();
          foreach ($rows as $row) : ?>
            <tr class="nw">
              <td><?=$row->kode_alternatif ?></td>
              <td><?=$row->nama_alternatif; ?></td>
              <?php foreach ($rel_alternatif[$row-
>kode_alternatif] as $k => $v) : ?>
                <td><?=$v ?></td>
              <?php endforeach ?>
              <td>
                <a class="btn btn-sm btn-warning"
href="?m=rel_alternatif_ubah&ID=<?=$row-
```

```
>kode_alternatif ?>"><span class="fa fa-
edit"></span> Ubah</a>
      </td>
    </tr>
  <?php endforeach; ?>
</tbody>
</table>
</div>
</div>
```

ubah_rel_alternatif.php

```
<?php
$db = $db->get_row("SELECT * FROM
tb_alternatif WHERE
kode_alternatif='$_GET[ID]");
?>
<div class="page-header text-success">
  <h1>Ubah nilai bobot &raquo; <small><?=$
row->nama_alternatif ?></small></h1>
</div>
<div class="row">
  <div class="col-sm-4">
    <form method="post"
action="aksi.php?act=rel_alternatif_ubah&ID=
<?=$row->kode_alternatif ?>">
      <?php
        $rows = $db->get_results("SELECT *
FROM tb_rel_alternatif WHERE
kode_alternatif='$_GET[ID]' ORDER BY
kode_subkriteria");
        foreach ($rows as $row) : ?>
          <div class="form-group">
            <label><?=$
SUBKRITERIA[$row->kode_subkriteria]-
>nama_kriteria ?> - <?=$
SUBKRITERIA[$row->kode_subkriteria]-
>nama_subkriteria ?></label>
            <input class="form-control"
name="nilai[<?=$row->ID ?>]" value="<?=$
row->nilai ?>" />
          </div>
          <?php endforeach ?>
          <div class="form-group">
            <button class="btn btn-
primary"><span class="fa fa-save"></span>
Simpan</button>
            <a class="btn btn-danger"
href="?m=rel_alternatif"><span class="fa fa-
arrow-left"></span> Kembali</a>
          </div>
        </form>
      </div>
</div>
```


Fsaw.php (menu fsaw)

```
<div class="page-header text-success">
  <h1>Perhitungan Fuzzy SAW</h1>
</div>
<?php
$bobot_kriteria = array();
foreach ($KRITERIA as $key => $val) {
  $bobot_kriteria[$key] = $val->bobot;
}
$bobot_subkriteria = array();
foreach ($SUBKRITERIA as $key => $val) {
  $bobot_subkriteria[$val-
>kode_kriteria][$val->kode_subkriteria] =
$val->nilai;
  $atribut[$key] = $val->atribut;
}
$rel_alternatif = get_rel_alternatif();
$fsaw = new FSAW($bobot_kriteria,
$bobot_subkriteria, $rel_alternatif, $atribut);
?>
<div class="card mb-3">
  <div class="card-header bg-success-subtle">
    <strong>Data Kriteria</strong>
  </div>
  <div class="table-responsive">
    <table class="table table-bordered table-
striped table-hover m-0">
      <thead>
        <tr>
          <th>Kode</th>
          <th>Nama</th>
          <th>Bobot</th>
          <th>Bobot Normal</th>
        </tr>
      </thead>
      <?php foreach ($KRITERIA as $key => $val) :
?>
        <tr>
          <td><?=$key ?></td>
          <td><?=$val->nama_kriteria ?></td>
          <td><?=$fsaw->bobot_kriteria[$key],
3) ?></td>
          <td><?=$fsaw-
>bobot_kriteria_normal[$key], 3) ?></td>
        </tr>
      <?php endforeach ?>
    </table>
  </div>
</div>
<div class="card mb-3">
  <div class="card-header bg-success-subtle">
    <strong>Data Subkriteria</strong>
  </div>
  <div class="table-responsive">
```

```
    <table class="table table-bordered table-
striped table-hover m-0">
      <thead>
        <tr>
          <th>Kode</th>
          <th>Nama</th>
          <th>Atribut</th>
          <th>Bobot</th>
          <th>Bobot Normal</th>
          <th>Bobot Akhir</th>
        </tr>
      </thead>
      <?php foreach ($SUBKRITERIA as
$key => $val) : ?>
        <tr>
          <td><?=$key ?></td>
          <td><?=$val->nama_subkriteria ?></td>
          <td><?=$val->atribut ?></td>
          <td><?=$fsaw->bobot_subkriteria[$val-
>kode_kriteria][$key], 3) ?></td>
          <td><?=$fsaw-
>bobot_subkriteria_normal[$val-
>kode_kriteria][$key], 3) ?></td>
          <td><?=$fsaw->bobot_akhir[$key], 3)
?></td>
        </tr>
      <?php endforeach ?>
    </table>
  </div>
</div>
<div class="card mb-3">
  <div class="card-header bg-success-subtle">
    <strong>Nilai Alternatif</strong>
  </div>
  <div class="table-responsive">
    <table class="table table-bordered table-
striped table-hover m-0">
      <thead>
        <tr>
          <th>Kode</th>
          <th>Nama</th>
          <?php foreach ($SUBKRITERIA as $key =>
$val) : ?>
            <th><?=$val->nama_subkriteria ?></th>
          <?php endforeach ?>
        </tr>
      </thead>
      <?php foreach ($fsaw->rel_alternatif as
$key => $val) : ?>
        <tr>
          <td><?=$key ?></td>
          <td class="text-nowrap"><?=$
$ALTERNATIF[$key]->nama_alternatif
?></td>
```

```

<?php foreach ($val as $k => $v) : ?>
<td><?= round($v, 3) ?></td>
    <?php endforeach ?>
</tr>
</table>
</div>
</div>
<div class="card mb-3">
    <div class="card-header bg-success-subtle">
        <strong>Normalisasi</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Kode</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <th><?= $key ?></th>
                </tr>
            </tbody>
        </table>
        <?php foreach ($fsaw->normal as $key
=> $val) : ?>
            <tr>
                <td><?= $key ?></td>
            </tr>
        </tbody>
    </table>
    <?php endforeach ?>
</div>
</div>
<div class="card mb-3">
    <div class="card-header bg-success-subtle">
        <strong>Terrobot</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Kode</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <th><?= $key ?></th>
                </tr>
            </tbody>
        </table>
        <?php foreach ($fsaw->terrobot as $key =>
$val) : ?>
            <tr>
                <td><?= round($v, 3) ?></td>
            </tr>
        </tbody>
    </table>
    <?php endforeach ?>
</div>
</div>
<div class="card mb-3">
    <div class="card-header bg-success-subtle">
        <strong>Perangkingan Fuzzy SAW</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Rank</th>
                    <th>Kode</th>
                    <th>Nama</th>
                    <th>Total</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td><?= $val ?></td>
                    <td><?= $key ?></td>
                </tr>
            </tbody>
        </table>
        <?php
foreach ($fsaw->rank as $key => $val) :
$db->query("UPDATE tb_alternatif
SET fsaw_total='{ $fsaw->total[$key] }',
fsaw_rank='$val' WHERE
kode_alternatif='$key'");
?>
    </div>
</div>
<div class="card-footer">
<a class="btn btn-secondary" target="_blank"
href="cetak.php?m=fsaw"><span class="fa fa-
print"></span> Cetak</a>
</div>
</div>

```

Fsaw_cetak.php

```

<div class="page-header">
    <h1>Perhitungan Fuzzy SAW</h1>
</div>
<?php

```

```

$bobot_kriteria = array();
foreach ($KRITERIA as $key => $val) {
    $bobot_kriteria[$key] = $val->bobot;
}
$bobot_subkriteria = array();
foreach ($SUBKRITERIA as $key => $val) {
    $bobot_subkriteria[$val->kode_kriteria][$val->kode_subkriteria] =
    $val->nilai;
    $atribut[$key] = $val->atribut;
}
$rel_alternatif = get_rel_alternatif();
$fsaw = new FSAW($bobot_kriteria,
$bobot_subkriteria, $rel_alternatif, $atribut);
?>
<div class="card mb-3">
    <div class="card-header">
        <strong>Data Kriteria</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Kode</th>
                    <th>Nama</th>
                    <th>Bobot</th>
                    <th>Bobot Normal</th>
                </tr>
            </thead>
            <?php foreach ($KRITERIA as $key
=> $val) : ?>
                <tr>
                    <td><?=$key ?></td>
                    <td><?=$val->nama_kriteria ?></td>
                    <td><?=$fsaw->bobot_kriteria[$key],
3) ?></td>
                    <td><?=$fsaw-
>bobot_kriteria_normal[$key], 3) ?></td>
                </tr>
            <?php endforeach ?>
        </table>
    </div>
</div>
<div class="card mb-3">
    <div class="card-header">
        <strong>Data Kriteria</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Kode</th>
                    <th>Nama</th>
                    <?php foreach ($SUBKRITERIA
as $key => $val) : ?>
                        <th><?=$key ?></th>
                    <?php endforeach ?>
                </thead>
                <?php foreach ($fsaw->rel_alternatif as
$key => $val) : ?>
                    <tr>
                        <td><?=$key ?></td>
                        <td class="text-nowrap"><?=$
$ALTERNATIF[$key]->nama_alternatif
?></td>
                        <?php foreach ($val as $k => $v) : ?>
                            <td><?=$v, 3) ?></td>
                        <?php endforeach ?>
                    </tr>
                </tbody>
            </table>
    </div>
</div>

```

```

        </tr>
        <?php endforeach ?>
    </table>
</div>
</div>
<div class="card mb-3">
    <div class="card-header">
        <strong>Normalisasi</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Kode</th>
<?php foreach ($SUBKRITERIA as $key =>
$val) : ?>
                    <th><?= $key ?></th>
                <?php endforeach ?>
            </tr>
            </thead>
<?php foreach ($fsaw->normal as $key =>
$val) : ?>
                <tr>
                    <td><?= $key ?></td>
<?php foreach ($val as $k => $v) : ?>
                    <td><?= round($v, 3) ?></td>
                <?php endforeach ?>
            </tr>
        <?php endforeach ?>
    </table>
</div>
</div>
<div class="card mb-3">
    <div class="card-header">
        <strong>Terbobot</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Kode</th>
<?php foreach ($SUBKRITERIA as $key =>
$val) : ?>
                    <th><?= $key ?></th>
                <?php endforeach ?>
            </tr>
            </thead>
<?php foreach ($fsaw->terbobot as $key =>
$val) : ?>
                <tr>
                    <td><?= $key ?></td>

```

```

        <?php foreach ($val as $k => $v) : ?>
            <td><?= round($v, 3) ?></td>
        <?php endforeach ?>
    </tr>
</table>
</div>
</div>
<div class="card mb-3">
    <div class="card-header">
        <strong>Perangkingan Fuzzy
SAW</strong>
    </div>
    <div class="table-responsive">
        <table class="table table-bordered table-
striped table-hover m-0">
            <thead>
                <tr>
                    <th>Rank</th>
                    <th>Kode</th>
                    <th>Nama</th>
                    <th>Total</th>
                </tr>
            </thead>
<?php
    foreach ($fsaw->rank as $key => $val) :
$db->query("UPDATE tb_alternatif SET
fsaw_total='{ $fsaw->total[$key] }',
fsaw_rank='$val' WHERE
kode_alternatif='$key'");
    ?>
                <tr>
                    <td><?= $val ?></td>
                    <td><?= $key ?></td>
                    <td><?= $ALTERNATIF[$key]-
>nama_alternatif ?></td>
                    <td><?= round($fsaw->total[$key], 3) ?></td>
                </tr>
            <?php endforeach ?>
        </table>
    </div>
</div>

```

Laporan.php

```

<div class="page-header text-success">
    <h1>Laporan Hasil Perhitungan</h1>
</div>
<div class="card mb-3">
    <div class="card-header bg-success-subtle">
        <form class="form-inline">
            <input type="hidden" name="m"
value="laporan" />
        <div class="mr-1">

```

```

<input class="form-control" type="text"
placeholder="Pencarian. . ." name="q"
value="<?=$_get('q') ?>" />
</div>
<div class="mr-1">
<button class="btn btn-success"><span
class="fa fa-sync"></span> Refresh</button>
</div>
<div class="mr-1" <?=$_is_hidden() ?>>
<a class="btn btn-secondary"
href="cetak.php?m=laporan_fsaw&q=<?=$_get('q') ?>" target="_blank"><span class="fa
fa-print"></span> Cetak FSAW</a>
</div>
</form>
</div>
<div class="table-responsive">
<table class="table table-bordered table-
hover table-striped m-0">
<thead>
<tr>
<th>No</th>
<th>Kode</th>
<th>Nama</th>
<th>Keterangan</th>
<th>Rank FSAW</th>
<th>Total FSAW</th>
</tr>
</thead>
<?php
$q = esc_field($_get('q'));
$rows = $db->get_results("SELECT *
FROM tb_alternatif WHERE kode_alternatif
LIKE '%$q%' OR nama_alternatif LIKE
'%$q%' ORDER BY kode_alternatif");
$no = 0;
foreach ($rows as $row) : ?>
<tr>
<td><?=$_++$no ?></td>
<td><?=$_$row->kode_alternatif ?></td>
<td><?=$_$row->nama_alternatif ?></td>
<td><?=$_$row->keterangan ?></td>
<td><?=$_$row->fsaw_rank ?></td>
<td><?=$_round($row->fsaw_total, 4) ?></td>
</tr>
<?php endforeach ?>
</table>
</div>
</div>

```

Cetak_laporan.php

```

<style>
h1 {
border: none;

```

```

}
</style>
<div style="border-bottom: 4px double
black;">
<div style="width: 30%; float: left;">

</div>
<div style="width: 70%; float: right;text-
align: center;">
<h2 style="margin: 0;">
KEMENTERIAN PENDIDIKAN,
KEBUDAYAAN<br />
RISET, DAN TEKNOLOGI<br />
POLITEKNIK NEGERI SRIWIJAYA
</h2>
<p style="margin: 10px 0;">
Jalan Sriwijaya Negara Bukit Besar –
Palembang 30139 Telepon (0711) 353414 <br />
/>
Halaman : http://polsri.ac.id, Pos El :
info@polsri.ac.id
</p>
</div>
<div style="clear: both;"></div>
</div>
<p>Dengan rekapitulasi nilai sebagai berikut
:</p>
<h1>Laporan Hasil Perangkingan FSAW</h1>
<table style="width: 100%;">
<thead>
<tr>
<th>Rank</th>
<th>Kode</th>
<th>Nama</th>
<th>Keterangan</th>
<?php foreach ($SUBKRITERIA as
$key => $val) : ?>
<th><?=$_$key ?></th>
<?php endforeach ?>
<th>Total</th>
</tr>
</thead>
<?php
$rows = $db->get_results("SELECT *
FROM tb_alternatif ORDER BY fsaw_rank");
$rel_alternatif = get_rel_alternatif();
foreach ($rows as $row) : ?>
<tr>
<td><?=$_$row->fsaw_rank ?></td>
<td><?=$_$row->kode_alternatif
?></td>
<td><?=$_$row->nama_alternatif
?></td>

```

```

        <td><?=$row->keterangan ?></td>
        <?php foreach ($rel_alternatif[$row-
>kode_alternatif] as $k => $v) : ?>
            <td><?=$v ?></td>
        <?php endforeach ?>
        <td><?=$row->fsaw_total, 4)
?></td>
    </tr>
    <?php endforeach ?>
</table>
<p>Demikian Berita Acara penilaian seleksi
dalam acara Pemilihan Mahasiswa Berprestasi
Tingkat
    Polsri Tahun <?=$date('Y') ?> dibuat untuk
dipergunakan sebagaimanamestinya.</p>
<div>
    <div style="float: right; text-align: center;
margin-top: 20px;">
        Kota Anda, <?=$tgl_indo(date('Y-m-d'))
?><br />
        Mengetahui<br />
        <br />
        <br />
        <br />
        Nama Pimpinan Anda
    </div>
</div>

```

Aksi.php

```

<?php
require_once 'functions.php';
if ($mod == 'login') {
    $user = esc_field($_POST['user']);
    $pass = esc_field($_POST['pass']);
    $row = $db->get_row("SELECT * FROM
tb_admin WHERE user='$user' AND
pass='$pass'");
    if ($row) {
        $_SESSION['login'] = $row->user;
        redirect_js("index.php");
    } else {
        print_msg("Salah kombinasi username
dan password.");
    }
} else if ($mod == 'password') {
    $pass1 = $_POST['pass1'];
    $pass2 = $_POST['pass2'];
    $pass3 = $_POST['pass3'];
    $row = $db->get_row("SELECT * FROM
tb_admin WHERE user='$_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 {
        $db->query("UPDATE tb_admin SET
pass='$pass2' WHERE
user='$_SESSION[login]'");
        print_msg('Password berhasil diubah.',
'success');
    }
} elseif ($sact == 'logout') {
    unset($_SESSION['login']);
    header("location:index.php?m=login");
}

/** subkriteria */
elseif ($mod == 'subkriteria_tambah') {
    $kode_subkriteria =
$_POST['kode_subkriteria'];
    $kode_kriteria = $_POST['kode_kriteria'];
    $nama_subkriteria =
$_POST['nama_subkriteria'];
    $atribut = $_POST['atribut'];
    $nilai = $_POST['nilai'];
    if ($kode_subkriteria == " || $kode_kriteria
== " || $nama_subkriteria == " || $atribut == " ||
$nilai == ")
        print_msg("Field bertanda * tidak boleh
kosong!");
    elseif ($db->get_results("SELECT * FROM
tb_subkriteria WHERE
kode_subkriteria='$kode_subkriteria'"))
        print_msg("Kode sudah ada!");
    else {
        $db->query("INSERT INTO
tb_subkriteria (kode_subkriteria, kode_kriteria,
nama_subkriteria, atribut, nilai) VALUES
('$kode_subkriteria','$kode_kriteria',
'$nama_subkriteria', '$atribut', '$nilai')");
        set_msg('Data berhasil ditambah');
        $db->query("INSERT INTO
tb_rel_alternatif (kode_alternatif,
kode_subkriteria) SELECT kode_alternatif,
'$kode_subkriteria' FROM tb_alternatif");
        redirect_js("index.php?m=subkriteria");
    }
} else if ($mod == 'subkriteria_ubah') {
    $kode_kriteria = $_POST['kode_kriteria'];
    $nama_subkriteria =
$_POST['nama_subkriteria'];
    $atribut = $_POST['atribut'];

```



```

    $nilai = $_POST['nilai'];
    if ($kode_kriteria == " || $nama_subkriteria
    == " || $atribut == " || $nilai == ")
        print_msg("Field bertanda * tidak boleh
        kosong!");
    else {
        $db->query("UPDATE tb_subkriteria
        SET kode_kriteria='$kode_kriteria',
        nama_subkriteria='$nama_subkriteria',
        atribut='$atribut', nilai='$nilai' WHERE
        kode_subkriteria='$_GET[ID]");
        set_msg('Data berhasil diubah');
        redirect_js("index.php?m=subkriteria");
    }
} else if ($sact == 'subkriteria_hapus') {
    $db->query("DELETE FROM
    tb_rel_alternatif WHERE
    kode_subkriteria='$_GET[ID]");
    $db->query("DELETE FROM tb_subkriteria
    WHERE kode_subkriteria='$_GET[ID]");
    set_msg('Data berhasil dihapus');
    header("location:index.php?m=subkriteria");
}

/** alternatif */
elseif ($mod == 'alternatif_tambah') {
    $kode_alternatif =
    $_POST['kode_alternatif'];
    $nim = $_POST['nim'];
    $nama_alternatif =
    $_POST['nama_alternatif'];
    $keterangan = $_POST['keterangan'];
    if ($kode_alternatif == " || $nim == " ||
    $nama_alternatif == ")
        print_msg("Field bertanda * tidak boleh
        kosong!");
    elseif ($db->get_results("SELECT * FROM
    tb_alternatif WHERE
    kode_alternatif='$kode_alternatif'"))
        print_msg("Kode sudah ada!");
    else {
        $db->query("INSERT INTO
        tb_alternatif(kode_alternatif, nim,
        nama_alternatif, keterangan) VALUES
        ('$kode_alternatif', '$nim', '$nama_alternatif',
        '$keterangan')");
        $db->query("INSERT INTO
        tb_rel_alternatif(kode_alternatif,
        kode_subkriteria) SELECT '$kode_alternatif',
        kode_subkriteria FROM tb_subkriteria");
        set_msg('Data berhasil ditambah');
        redirect_js("index.php?m=alternatif");
    }
} elseif ($mod == 'alternatif_ubah') {

```

```

    $nim = $_POST['nim'];
    $nama_alternatif =
    $_POST['nama_alternatif'];
    $keterangan = $_POST['keterangan'];
    if ($nim == " || $nama_alternatif == ")
        print_msg("Field bertanda * tidak boleh
        kosong!");
    else {
        $db->query("UPDATE tb_alternatif SET
        nama_alternatif='$nama_alternatif',
        nim='$nim', keterangan='$keterangan' WHERE
        kode_alternatif='$_GET[ID]");
        set_msg('Data berhasil diubah');
        redirect_js("index.php?m=alternatif");
    }
} elseif ($sact == '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]");
    set_msg('Data berhasil dihapus');
    header("location:index.php?m=alternatif");
}

/** kriteria */
elseif ($mod == 'kriteria_tambah') {
    $kode = $_POST['kode'];
    $nama = $_POST['nama'];
    $atribut = $_POST['atribut'];
    $bobot = $_POST['bobot'];
    if ($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',
        '$bobot')");
        set_msg('Data berhasil ditambah');
        redirect_js("index.php?m=kriteria");
    }
} else if ($mod == 'kriteria_ubah') {
    $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='$_GET[ID]");
        set_msg('Data berhasil diubah');
        redirect_js("index.php?m=kriteria");
    }
} else if ($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]");
    set_msg('Data berhasil dihapus');
    header("location:index.php?m=kriteria");
}

/** RELASI ALTERNATIF */
else if ($act == 'rel_alternatif_ubah') {
    foreach ($_POST['nilai'] as $key => $val) {
        $db->query("UPDATE tb_rel_alternatif
SET nilai='$val' WHERE ID='$key");
    }
    set_msg('Data berhasil diubah');
    header("location:index.php?m=rel_alternatif
");
}

```

Function.php

```

<?php
session_start();
include 'config.php';
include 'includes/db.php';
$db = new DB($config['server'],
$config['username'], $config['password'],
$config['database_name']);
include 'includes/SimpleImage.php';
include 'includes/FSAW.php';

function _post($key, $val = null)
{
    global $_POST;
    if (isset($_POST[$key]))
        return $_POST[$key];
    else
        return $val;
}

function _get($key, $val = null)
{
    global $_GET;
    if (isset($_GET[$key]))
        return $_GET[$key];
    else

```

```

        return $val;
    }

function _session($key, $val = null)
{
    global $_SESSION;
    if (isset($_SESSION[$key]))
        return $_SESSION[$key];
    else
        return $val;
}

$mod = _get('m');
$act = _get('act');
$db->query("DELETE FROM tb_subkriteria
WHERE kode_kriteria NOT IN (SELECT
kode_kriteria FROM tb_kriteria)");
$rows = $db->get_results("SELECT * FROM
tb_alternatif ORDER BY kode_alternatif");
foreach ($rows as $row) {
    $ALTERNATIF[$row->kode_alternatif] =
$row;
}
$rows = $db->get_results("SELECT * FROM
tb_subkriteria s INNER JOIN tb_kriteria k ON
k.kode_kriteria=s.kode_kriteria ORDER BY
kode_subkriteria");
$SUBKRITERIA = array();
foreach ($rows as $row) {
    $SUBKRITERIA[$row->kode_subkriteria]
= $row;
}
$rows = $db->get_results("SELECT * FROM
tb_kriteria ORDER BY kode_kriteria");
foreach ($rows as $row) {
    $KRITERIA[$row->kode_kriteria] = $row;
    $target = $row->kode_kriteria;
}

/** =====
*/
DEFINE('ABSPATH', dirname(__FILE__) .
'/');
function is_hidden()
{
    return _session('login') ? " : 'hidden';
}

function get_image_url($filename, $pref_f =
"", $pref_d = "")
{
    $location =
"assets/img/{ $pref_f } { $filename }";

    $file = ABSOLUTE . $location;

```

```

if (is_file($file))
    return $pref_d . $location;
else
    return $pref_d .
"assets/img/no_image.png";
}

function get_relati()
{
    global $db;
    $data = array();
    $rows = $db->get_results("SELECT *
FROM tb_rel_alternatif r INNER JOIN
tb_kriteria k ON
k.kode_kriteria=r.kode_kriteria
WHERE k.dicari=0
ORDER BY kode_alternatif,
r.kode_kriteria");
    foreach ($rows as $row) {
        $data[$row->kode_alternatif][$row->
kode_kriteria] = $row->nilai;
    }
    return $data;
}

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

function get_operator_option($selected)
{
    $sarr = array('AND' => 'AND', 'OR' => 'OR');
    $a = "";
    foreach ($sarr as $key => $val) {
        if ($key == $selected)
            $a .= "<option value='$key'
selected>$val</option>";
        else
            $a .= "<option
value='$key'>$val</option>";
    }
    return $a;
}

function get_dicari()
{
    global $KRITERIA;
    end($KRITERIA);
    $dicari = key($KRITERIA);
    reset($KRITERIA);
    return $dicari;
}

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 kode_oto($field, $table, $prefix,
$length)
{
    global $db;
    $svar = (string)$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 esc_field($str)
{
    return addslashes($str);
}

function redirect_js($url)
{
    echo '<script
type="text/javascript">window.location.replac
e("", $url . "");</script>';
}

function alert($url)
{
    echo '<script type="text/javascript">alert("
$url . "");</script>';
}

```

```

}

function set_msg($msg, $type = 'success')
{
    $_SESSION['message'] = ['msg' => $msg,
'type' => $type];
}

function show_msg()
{
    if ($_session('message'))
        print_msg($_SESSION['message']['msg'],
$_SESSION['message']['type']);
unset($_SESSION['message']);
}

function print_msg($msg, $type = 'danger')
{
    echo ('<div class="alert alert-' . $type . '
alert-dismissible" role="alert">
    <button type="button" class="close" data-
dismiss="alert" aria-label="Close"><span aria-
hidden="true">&times;</span></button>' .
$msg . '</div>');
}

function parse_file_name($file_name)
{
    $x = strtolower($file_name);
    $x = str_replace(array(' ', '-', $x);
return $x;
}

function get_atribut_option($selected = "")
{
    $atribut = array('benefit' => 'Benefit', 'cost'
=> 'Cost');
    $a = "";
    foreach ($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_rel_alternatif()
{
    global $db;
    $rows = $db->get_results("SELECT *
FROM tb_rel_alternatif ORDER BY
kode_alternatif, kode_subkriteria");

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

function dd($arr)
{
    echo '<pre>' . print_r($arr, 1) . '</pre>';
}

function get_data_cb($data)
{
    global $KRITERIA;
    $arr = array();
    foreach ($data as $key => $val) {
        foreach ($val as $k => $v) {
            $arr[$key][$k] = $KRITERIA[$k]-
>atribut == 'benefit' ? $v : $v * -1;
        }
    }
    return $arr;
}

function get_minmax($data_cb)
{
    $arr = array();
    $arr2 = array();
    foreach ($data_cb as $key => $val) {
        foreach ($val as $k => $v) {
            $arr[$k][$key] = $v;
        }
    }
    foreach ($arr as $key => $val) {
        $arr2['max'][$key] = max($val);
        $arr2['min'][$key] = min($val);
    }
    return $arr2;
}

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

```

```

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

```

```

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

```

```

function get_q($sr, $indeks_vikor)
{
    $sarr = array();
    $s_plus = max($sr['s']);
    $s_min = min($sr['s']);
    $r_plus = max($sr['r']);
    $r_min = min($sr['r']);

    foreach ($sr['s'] as $key => $val) {
        $ssi = $sr['s'][$key];
        $sri = $sr['r'][$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);
        $sarr[$key] = $indeks_vikor * $xs + (1 -
$indeks_vikor) * $xr;
    }
    return $sarr;
}

```

```

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

```

```

}

function tgl_indo($date)
{
    $tanggal = explode('-', $date);

    $array_bulan = array(1 => 'Januari',
'Februari', 'Maret', 'April', 'Mei', 'Juni', 'Juli',
'Agustus', 'September', 'Oktober', 'November',
'Desember');
    $bulan = $array_bulan[$tanggal[1] * 1];

    return $tanggal[2] . '-' . $bulan . '-';
}

```

Fsaw.php (Perhitungan)

```

<?php
class FSAW
{
    public $bobot_kriteria, $bobot_subkriteria,
$rel_alternatif, $atribut;
    public $bobot_kriteria_normal,
$bobot_subkriteria_normal, $bobot_akhir;
    public $minmax, $normal, $terbobot, $total,
$rank;
    function __construct($bobot_kriteria,
$bobot_subkriteria, $rel_alternatif, $atribut)
    {
        $this->bobot_kriteria = $bobot_kriteria;
        $this->bobot_subkriteria =
$bobot_subkriteria;
        $this->rel_alternatif = $rel_alternatif;
        $this->atribut = $atribut;

        /** normal kriteria */
        $total = array_sum($this->bobot_kriteria);
        foreach ($this->bobot_kriteria as $key =>
$val) {
            $this->bobot_kriteria_normal[$key] =
$val / $total;
        }

        /** normal subkriteria */
        foreach ($this->bobot_subkriteria as $key
=> $val) {
            $total = array_sum($val);
            foreach ($val as $k => $v) {
                $this-
>bobot_subkriteria_normal[$key][$k] = $v /
$total;
            }
        }
    }
}

```

```

        /** bobot akhir */
        foreach ($this->bobot_subkriteria_normal
as $key => $val) {
            foreach ($val as $k => $v) {
                $this->bobot_akhir[$k] = $v * $this-
>bobot_kriteria_normal[$key];
            }
        }
        $arr = array();
        foreach ($this->rel_alternatif as $key =>
$val) {
            foreach ($val as $k => $v) {
                $arr[$k][$key] = $v;
            }
        }
        $this->minmax = array();
        foreach ($arr as $key => $val) {
            $this->minmax[$key]['min'] =
min($val);
            $this->minmax[$key]['max'] =
max($val);
        }
        $this->normal = array();
        foreach ($this->rel_alternatif as $key =>
$val) {
            foreach ($val as $k => $v) {
                $this->normal[$key][$k] = $this-
>atribut[$k] == 'benefit' ? $v / $this-
>minmax[$k]['max'] : $this-
>minmax[$k]['min'] / $v;
            }
        }
        $this->terbobot = array();
        foreach ($this->normal as $key => $val) {
            foreach ($val as $k => $v) {
                $this->terbobot[$key][$k] = $v *
$this->bobot_akhir[$k];
            }
            $this->total[$key] = array_sum($this-
>terbobot[$key]);
        }
        $this->rank = get_rank($this->total);
        // dd($this);
    }}
function get_rank($array, $stype = 'DESC')
{
    $data = $array;
    if ($stype == 'ASC')
        asort($data);
    else
        arsort($data);
    $no = 1;
    $new = array();
    foreach ($data as $key => $value) {
        $new[$key] = $no++;
    }
    return $new;
}

```