

## HOME

```
<?php
include('config.php');
include('fungsi.php');

// header
include('header.php');
?>

<div class="container">
    <h2>Permasalahan</h2>

    <p>SDN 23 Pangkatan ingin membeli perangkat laptop untuk sekolah.  

        Beberapa alternatif Laptop Pilihan yang beredar dipasaran adalah:<b> Acer,  

        Lenovo, Thosiba.</b></p>

    <p>Untuk kriteria penilaian yang dipertimbangkan adalah: <b>RAM, Harga, SSD  

        dan Sistem Operasi</b>
        Bagaimana untuk memberikan solusi untuk SDN 23 Pangkatan mengenai  

        perangkat laptop mana yang  

        layak digunakan untuk sekolah ?</p>

    <div class="well">
        <h2>Kriteria</h2>
        Kehandalan <b>3x</b> lebih utama dibanding Penampilan <br>
        Penampilan <b>2x</b> lebih utama dibanding Harga <br>
        Kehandalan <b>4x</b> lebih utama dibanding Harga <br>
    </div>

    <div class="well">
        <h3>Bobot Alternatif Penampilan</h3>
        HP <b>3</b> x Lebih keren dari Asus dan Dell <br>
        Fujitsu <b>2</b> x Lebih keren dari Asus, <b>1</b> x lebih keren dari HP
    <br>
        Asus <b>1</b> x Lebih keren Dell <br>
        Fujitsu <b>1</b> x Lebih keren Dell <br>
    </div>
    <div class="well">
        <h3>Bobot Alternatif Kehandalan</h3>
        HP <b>1</b> x Lebih handal dari Asus dan Dell <br>
        Fujitsu <b>2</b> x Lebih handal dari Asus, <b>1</b> x lebih handal dari
    HP <br>
        Asus <b>1</b> x Lebih handal Dell <br>
        Fujitsu <b>2</b> x Lebih handal Dell <br>
    </div>
    <div class="well">
```

```
<h3>Bobot Alternatif Harga</h3>
HP <b>2</b> x Lebih terjangkau dari Asus dan Dell <br>
Fujitsu <b>1</b> x Lebih terjangkau dari Asus dan HP <br>
Asus <b>3</b> x Lebih terjangkau dari Dell <br>
Fujitsu <b>1</b> x Lebih terjangkau Dell <br>
</div>
</div>
<ul class="pager">
<li class="previous"><a href="#">Kembali</a></li>
<li class="next"><a href="kriteria.php">Lanjut</a></li>
</ul>

<?php include('footer.php'); ?>
```

## HEADER

```
<!DOCTYPE html>
<html>
<head>

    <title>Shafiyah Khairani metode AHP</title>
    <link href="vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

    <!-- MetisMenu CSS -->
    <link href="vendor/metisMenu/metisMenu.min.css" rel="stylesheet">

    <!-- Custom CSS -->
    <link href="dist/css/sb-admin-2.css" rel="stylesheet">

    <!-- Custom Fonts -->
    <link href="vendor/font-awesome/css/font-awesome.min.css" rel="stylesheet" type="text/css">

    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>

</head>

<body>
    <div class="jumbotron">
        <div class="container text-center">
            <h1>Sistem Penunjang Keputusan</h1>
            <p>Rekomendasi Laptop Terbaik Menggunakan Metode AHP</p>
        </div>

        <nav class="navbar navbar-inverse"><!-- warna -->
            <div class="container-fluid">
                <div class="navbar-header">
                    <button type="button" class="navbar-toggle" data-toggle="collapse" data-
target="#myNavbar">
                        <span class="icon-bar"></span>
                        <span class="icon-bar"></span>
                        <span class="icon-bar"></span>
                    </button>
                    <a class="navbar-brand" href="./">Beranda</a>
                </div>
                <div class="collapse navbar-collapse" id="myNavbar">
                    <ul class="nav navbar-nav">
```

```

<li class="active"><a href="home.php"><span class="glyphicon glyphicon-home"></span> Home</a></li>
<li>
    <a href="kriteria.php">Kriteria
        <?php getJumlahKriteria(); ?>
    </a>
</li>
<li>
    <a href="alternatif.php">Alternatif
        <?php getJumlahAlternatif(); ?>
    </a>
</li>
<li>
    <a href="bobot_kriteria.php">Perbandingan Kriteria
    </a>
</li>
<li><a href="bobot.php?c=1"></a></li>

<?php

if (getJumlahKriteria() > 0) {
    for ($i=0; $i <=
(getJumlahKriteria()-1); $i++) {
        echo "<li><a class='item' href='bobot.php?c=".($i+1)."'>".getKriteriaNama($i)."</a></li>";
    }
}

?>
</ul>
<ul class="nav navbar-nav navbar-right">
<li><a href="hasil.php"><span class="glyphicon glyphicon-log-in"></span> Hasil</a></li>
</ul>
</nav>
<div class="container">
```

## TUGAS

```
-- phpMyAdmin SQL Dump
-- version 4.6.5.2
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Jan 30, 2019 at 01:41 PM
-- Server version: 10.1.21-MariaDB
-- PHP Version: 5.6.30

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET time_zone = "+00:00";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `tugas_ahp`
--

-----
-- Table structure for table `alternatif`
--

CREATE TABLE `alternatif` (
  `id` int(11) NOT NULL,
  `nama` varchar(20) NOT NULL
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `alternatif`
--

INSERT INTO `alternatif` (`id`, `nama`) VALUES
(52, 'Asus'),
(53, 'HP'),
(54, 'DELL'),
(55, 'Fujitsu');

-----
```

```
--  
-- Table structure for table `ir`  
  
CREATE TABLE `ir` (  
    `jumlah` int(11) NOT NULL,  
    `nilai` float NOT NULL  
) ENGINE=MyISAM DEFAULT CHARSET=latin1;
```

```
--  
-- Dumping data for table `ir`  
--
```

```
INSERT INTO `ir` (`jumlah`, `nilai`) VALUES  
(1, 0),  
(2, 0),  
(3, 0.58),  
(4, 0.9),  
(5, 1.12),  
(6, 1.24),  
(7, 1.32),  
(8, 1.41),  
(9, 1.45),  
(10, 1.49),  
(11, 1.51),  
(12, 1.48),  
(13, 1.56),  
(14, 1.57),  
(15, 1.59);
```

---

```
--  
-- Table structure for table `kriteria`  
--
```

```
CREATE TABLE `kriteria` (  
    `id` int(11) NOT NULL,  
    `nama` varchar(20) NOT NULL  
) ENGINE=MyISAM DEFAULT CHARSET=latin1;
```

```
--  
-- Dumping data for table `kriteria`  
--
```

```
INSERT INTO `kriteria` (`id`, `nama`) VALUES  
(60, 'Penampilan'),  
(61, 'Kehandalan'),
```

```
(62, 'Harga');
```

---

```
--  
-- Table structure for table `perbandingan_alternatif`  
--
```

```
CREATE TABLE `perbandingan_alternatif` (  
    `id` int(11) NOT NULL,  
    `alternatif1` int(11) NOT NULL,  
    `alternatif2` int(11) NOT NULL,  
    `pembanding` int(11) NOT NULL,  
    `nilai` float NOT NULL  
) ENGINE=MyISAM DEFAULT CHARSET=latin1;
```

```
--  
-- Dumping data for table `perbandingan_alternatif`  
--
```

```
INSERT INTO `perbandingan_alternatif` (`id`, `alternatif1`, `alternatif2`, `pembanding`, `nilai`) VALUES  
(159, 54, 55, 60, 1),  
(165, 54, 55, 61, 0.5),  
(164, 53, 55, 61, 1),  
(171, 54, 55, 62, 1),  
(170, 53, 55, 62, 1),  
(169, 53, 54, 62, 2),  
(158, 53, 55, 60, 1),  
(163, 53, 54, 61, 1),  
(157, 53, 54, 60, 3),  
(168, 52, 55, 62, 1),  
(167, 52, 54, 62, 3),  
(166, 52, 53, 62, 0.5),  
(156, 52, 55, 60, 0.5),  
(155, 52, 54, 60, 1),  
(154, 52, 53, 60, 3),  
(162, 52, 55, 61, 0.5),  
(161, 52, 54, 61, 1),  
(160, 52, 53, 61, 1);
```

---

```
--  
-- Table structure for table `perbandingan_kriteria`  
--
```

```
CREATE TABLE `perbandingan_kriteria` (  
    `id` int(11) NOT NULL,
```

```
`kriteria1` int(11) NOT NULL,  
`kriteria2` int(11) NOT NULL,  
`nilai` float NOT NULL  
) ENGINE=MyISAM DEFAULT CHARSET=latin1;  
  
--  
-- Dumping data for table `perbandingan_kriteria`  
--  
  
INSERT INTO `perbandingan_kriteria` (`id`, `kriteria1`, `kriteria2`, `nilai`) VALUES  
(34, 60, 61, 0.333333),  
(36, 61, 62, 4),  
(35, 60, 62, 2);  
  
-----  
  
--  
-- Table structure for table `pv_alternatif`  
--  
  
CREATE TABLE `pv_alternatif` (  
`id` int(11) NOT NULL,  
`id_alternatif` int(11) NOT NULL,  
`id_kriteria` int(11) NOT NULL,  
`nilai` float NOT NULL  
) ENGINE=MyISAM DEFAULT CHARSET=latin1;  
  
--  
-- Dumping data for table `pv_alternatif`  
--  
  
INSERT INTO `pv_alternatif` (`id`, `id_alternatif`, `id_kriteria`, `nilai`) VALUES  
(135, 55, 60, 0.275355),  
(139, 55, 61, 0.345833),  
(143, 55, 62, 0.23924),  
(142, 54, 62, 0.159112),  
(134, 54, 60, 0.186413),  
(138, 54, 61, 0.204167),  
(137, 53, 61, 0.245833),  
(141, 53, 62, 0.332647),  
(133, 53, 60, 0.262534),  
(132, 52, 60, 0.275698),  
(136, 52, 61, 0.204167),  
(140, 52, 62, 0.269002);  
  
-----  
--
```

```
-- Table structure for table `pv_kriteria`
--
CREATE TABLE `pv_kriteria` (
  `id_kriteria` int(11) NOT NULL,
  `nilai` float NOT NULL
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `pv_kriteria`
--

INSERT INTO `pv_kriteria` (`id_kriteria`, `nilai`) VALUES
(60, 0.239487),
(61, 0.623225),
(62, 0.137288);

-----
-- Table structure for table `ranking`
--

CREATE TABLE `ranking` (
  `id_alternatif` int(11) NOT NULL,
  `nilai` float NOT NULL
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `ranking`
--

INSERT INTO `ranking` (`id_alternatif`, `nilai`) VALUES
(52, 0.230199),
(53, 0.261751),
(54, 0.19373),
(55, 0.314321);

--
-- Indexes for dumped tables
--

--
-- Indexes for table `alternatif`
--
ALTER TABLE `alternatif`
  ADD PRIMARY KEY (`id`);
```

```
--  
-- Indexes for table `ir`  
--  
ALTER TABLE `ir`  
ADD PRIMARY KEY (`jumlah`);  
  
--  
-- Indexes for table `kriteria`  
--  
ALTER TABLE `kriteria`  
ADD PRIMARY KEY (`id`);  
  
--  
-- Indexes for table `perbandingan_alternatif`  
--  
ALTER TABLE `perbandingan_alternatif`  
ADD PRIMARY KEY (`id`);  
  
--  
-- Indexes for table `perbandingan_kriteria`  
--  
ALTER TABLE `perbandingan_kriteria`  
ADD PRIMARY KEY (`id`);  
  
--  
-- Indexes for table `pv_alternatif`  
--  
ALTER TABLE `pv_alternatif`  
ADD PRIMARY KEY (`id`);  
  
--  
-- Indexes for table `pv_kriteria`  
--  
ALTER TABLE `pv_kriteria`  
ADD PRIMARY KEY (`id_kriteria`);  
  
--  
-- Indexes for table `ranking`  
--  
ALTER TABLE `ranking`  
ADD PRIMARY KEY (`id_alternatif`);  
  
--  
-- AUTO_INCREMENT for dumped tables  
--  
  
--  
-- AUTO_INCREMENT for table `alternatif`
```

```
--  
ALTER TABLE `alternatif`  
    MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=56;  
--  
-- AUTO_INCREMENT for table `kriteria`  
--  
ALTER TABLE `kriteria`  
    MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=63;  
--  
-- AUTO_INCREMENT for table `perbandingan_alternatif`  
--  
ALTER TABLE `perbandingan_alternatif`  
    MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=172;  
--  
-- AUTO_INCREMENT for table `perbandingan_kriteria`  
--  
ALTER TABLE `perbandingan_kriteria`  
    MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=37;  
--  
-- AUTO_INCREMENT for table `pv_alternatif`  
--  
ALTER TABLE `pv_alternatif`  
    MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=144;  
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;  
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;  
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

## KRITERRIA

```
<?php
    include('config.php');
    include('fungsi.php');

    // menjalankan perintah edit
    if(isset($_POST['edit'])) {
        $id = $_POST['id'];

        header('Location: edit.php?jenis=kriteria&id='.$id);
        exit();
    }

    // menjalankan perintah delete
    if(isset($_POST['delete'])) {
        $id = $_POST['id'];
        deleteKriteria($id);
    }

    // menjalankan perintah tambah
    if(isset($_POST['tambah'])) {
        $nama = $_POST['nama'];
        tambahData('kriteria',$nama);
    }

    include('header.php');
?>

<div class="container">
    <h2>Kriteria (Penilaian)</h2>

    <table class="table">
        <thead>
            <tr>
                <th>No</th>
                <th>Nama Kriteria</th>
                <th>Aksi</th>
            </tr>
        </thead>
        <tbody>

            <?php
                // Menampilkan list kriteria
                $query = "SELECT id,nama FROM kriteria ORDER BY id";
                $result = mysqli_query($koneksi, $query);
```

```

        $i = 0;
        while ($row = mysqli_fetch_array($result)) {
            $i++;
        }
    <tr>
        <td><?php echo $i ?></td>
        <td><?php echo $row['nama'] ?></td>
        <td>
            <form method="post" action="kriteria.php">
                <input type="hidden" name="id" value="<?php echo
                $row['id'] ?>">
                <button type="submit" name="edit" class="btn btn-
                warning">EDIT</button>
                <button type="submit" name="delete" class="btn btn-
                danger">DELETE</button>
            </form>
        </td>
    </tr>

<?php } ?>

</tbody>

<tr>
    <th>
        <a href="tambah.php?jenis=kriteria">
            <div class="btn btn-success">Tambah
        </div>
    </a>
    </th>
</tr>

</table>
</form>
</div>
<ul class="pager">
    <li class="previous"><a href="/">Kembali</a></li>
    <li class="next"><a href="alternatif.php">Lanjut</a></li>
</ul>

</section>

<?php include('footer.php'); ?>
```



## BOBOT KRITERIA

```
<?php
    include('config.php');
    include('fungsi.php');

    include('header.php');
?>
<div class="container">
    <h2>Matrik Perbandingan Berpasangan</h2>
    <h4>(Matrik Pairwise Comparison)</h4>
    <?php showTabelPerbandingan('kriteria','kriteria'); ?>
</div>

<?php include('footer.php'); ?>
```

## ALTERNATIF

```
<?php
    include('config.php');
    include('fungsi.php');

    // menjalankan perintah edit
    if(isset($_POST['edit'])) {
        $id = $_POST['id'];

        header('Location: edit.php?jenis=alternatif&id='.$id);
        exit();
    }

    // menjalankan perintah delete
    if(isset($_POST['delete'])) {
        $id = $_POST['id'];
        deleteAlternatif($id);
    }

    // menjalankan perintah tambah
    if(isset($_POST['tambah'])) {
        $nama = $_POST['nama'];
        tambahData('alternatif',$nama);
    }

    include('header.php');

?>

<div class="container">

    <h2>Alternatif (Pilihan)</h2>

    <table class="table">
        <thead>
            <tr>
                <th>No</th>
                <th>Nama Alternatif</th>
                <th>Aksi</th>
            </tr>
        </thead>
        <tbody>

            <?php
                // Menampilkan list alternatif
```

```

$query = "SELECT id,nama FROM alternatif ORDER BY id";
$result = mysqli_query($koneksi, $query);

$i = 0;
while ($row = mysqli_fetch_array($result)) {
    $i++;
?>
<tr>
    <td><?php echo $i ?></td>
    <td><?php echo $row['nama'] ?></td>
    <td>
        <form method="post" action="alternatif.php">
            <input type="hidden" name="id" value="<?php echo
$row['id'] ?>">
            <button type="submit" name="edit" class="btn btn-
warning">EDIT</button>
            <button type="submit" name="delete" class="btn btn-
danger">DELETE</button>
        </form>
    </td>
</tr>

<?php } ?>

</tbody>

<tr>
    <th colspan="3">
        <a href="tambah.php?jenis=alternatif">
            <div class="btn btn-success">Tambah
            </div>
        </a>
    </th>
</tr>

</table>
</form>
</div>
<ul class="pager">
    <li class="previous"><a href="kriteria.php">Kembali</a></li>
    <li class="next"><a href="bobot_kriteria.php">Lanjut</a></li>
</ul>
</section>

<?php include('footer.php'); ?>

```

## HASIL

```
<?php

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

// menghitung perangkingan
$jmlKriteria    = getJumlahKriteria();
$jmlAlternatif   = getJumlahAlternatif();
$nilai          = array();

// mendapatkan nilai tiap alternatif
for ($x=0; $x <= ($jmlAlternatif-1); $x++) {
    // inisialisasi
    $nilai[$x] = 0;

    for ($y=0; $y <= ($jmlKriteria-1); $y++) {
        $id_alternatif  = getAlternatifID($x);
        $id_kriteria    = getKriteriaID($y);

        $pv_alternatif  = getAlternatifPV($id_alternatif,$id_kriteria);
        $pv_kriteria    = getKriteriaPV($id_kriteria);

        $nilai[$x]         += ($pv_alternatif * $pv_kriteria);
    }
}

// update nilai ranking
for ($i=0; $i <= ($jmlAlternatif-1); $i++) {
    $id_alternatif = getAlternatifID($i);
    $query = "INSERT INTO ranking VALUES ($id_alternatif,$nilai[$i]) ON DUPLICATE KEY UPDATE
nilai=$nilai[$i]";
    $result = mysqli_query($koneksi,$query);
    if (!$result) {
        echo "Gagal mengupdate ranking";
        exit();
    }
}

include('header.php');

?>

<div class="container">
    <h2 class="ui header">Hasil Perhitungan</h2>
```

```

<table class="ui celled table">
    <thead>
        <tr>
            <th>Kriteria</th>
            <th>Priority Vector (rata-rata)</th>
            <?php
                for ($i=0; $i <= (getJumlahAlternatif()-1); $i++) {
                    echo "<th>".getAlternatifNama($i)."</th>\n";
                }
            ?>
        </tr>
    </thead>
    <tbody>

        <?php
            for ($x=0; $x <= (getJumlahKriteria()-1) ; $x++) {
                echo "<tr>";
                echo "<td>".getKriteriaNama($x)."</td>";
                echo "<td>".round(getKriteriaPV(getKriteriaID($x)),5)."</td>";

                for ($y=0; $y <= (getJumlahAlternatif()-1); $y++) {
                    echo
                    "<td>".round(getAlternatifPV(getAlternatifID($y),getKriteriaID($x)),5)."</td>";
                }

                echo "</tr>";
            }
        ?>
    </tbody>

    <tfoot>
        <tr>
            <th colspan="2">Total</th>
            <?php
                for ($i=0; $i <= ($jumlahAlternatif-1); $i++) {
                    echo "<th>".round($nilai[$i],5)."</th>";
                }
            ?>
        </tr>
    </tfoot>
</table>

```

```

<h2 class="ui header">Perangkingan</h2>
<table class="ui celled collapsing table">
    <thead>

```

```

<tr>
    <th>Peringkat</th>
    <th>Alternatif</th>
    <th>Nilai</th>
</tr>
</thead>
<tbody>
    <?php
        $query = "SELECT id,nama,id_alternatif,nilai FROM alternatif,ranking
WHERE alternatif.id = ranking.id_alternatif ORDER BY nilai DESC";
        $result = mysqli_query($koneksi, $query);

        $i = 0;
        while ($row = mysqli_fetch_array($result)) {
            $i++;
        ?>
        <tr>
            <?php if ($i == 1) {
                echo "<td><b>Pertama</b></div></td>";
            } else {
                echo "<td>".$i."</td>";
            }
        ?>

            <td><?php echo $row['nama'] ?></td>
            <td><?php echo $row['nilai'] ?></td>
        </tr>

        <?php
    }

    ?>
</tbody>
</table>

```

KESIMPILAN : <br>  
Rangking Pertama Adalah alternatif terbaik

```

</div>

<?php include('footer.php'); ?>
```