

LAMPIRAN

Sourcode Login

```

<?php
include_once "class/library.php";
$lib = new library();
>false = @$_GET['false'];
?>
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <title>Aplikasi Loyalitas Penjualan Barang</title>
  <meta content="width=device-width, initial-scale=1,
maximum-scale=1, user-scalable=no" name="viewport">
  <link rel="shortcut icon" type="image/png"
href="./dist/img/logo.png">
  <link rel="stylesheet" href="./plugins/fontawesome-
free/css/all.min.css">
  <link rel="stylesheet"
href="./plugins/overlayScrollbars/css/OverlayScrollbars.min.
css">
  <link rel="stylesheet"
href="./plugins/select2/css/select2.css">
  <link rel="stylesheet" href="./dist/css/adminlte.css">
  <link rel="stylesheet" href="./dist/css/goo_font.css">
  <link rel="stylesheet"
href="./plugins/iCheck/square/blue.css">

</head>

<body class="hold-transition login-page" style="background-
image:url('./dist/img/bg_login_2.webp');"><!--#007bff-->
  <div class="row">
    <div class="col-lg-12 col-md-12 col-sm-12 col-xs-12">
      <div class="row">
        <div class="col-lg-6 mt-4 mb-3" style="vertical-align:
middle; text-align: center; color: #FFF; line-height: 15px;
font-size: 1.3em;">
          <br>
          PT. Diantrijaya Utama Mukti
        </div>

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<div class="col-lg-6">
  <div class="login-box" style="border-radius: 5px; width:
100%;">
    <div class="card card-primary card-tabs" style="border-
radius: 5px;">
      <div class="card-header text-center" style="font-size:
1.5em;">
        <b>Sistem K-Means</b><br>
        Loyalitas Penjualan Barang<br>
      </div>
      <div class="card-body login-card-body text-center"
style="border-radius: 5px;">

        <p class="login-box-msg">
          <?php if ($false != "") { ?><br><span style="font-
size:12px; padding:3px 3px; background-color:#FF3C3C;
color:#FFF; font-stretch:ultra-condensed;">Username atau
password yang Anda masukkan salah.</span><?php } ?>
        </p>
        <form action="login_periksa.php" method="post"
enctype="multipart/form-data" data-toggle="validator">
          <div class="input-group mb-3">
            <input type="text" name="username" class="form-control"
placeholder="Username" required>
            <div class="input-group-append">
              <div class="input-group-text">
                <span class="fas fa-user"></span>
              </div>
            </div>
          </div>
          <div class="input-group mb-3">
            <input type="password" name="password" class="form-
control" placeholder="Password" required>
            <div class="input-group-append">
              <div class="input-group-text">
                <span class="fas fa-lock"></span>
              </div>
            </div>
          </div>
          <div class="row">
            <div class="col-lg-12">
              <button type="submit" class="btn btn-warning btn-
block">Login</button>
            </div>
          </div>
        </div>
      </div>

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</form>
</card>
<div class="login-footer" style="line-height:25px;">
</div><!-- /.login-logo -->

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

</div>
</div>

<script src="./plugins/jquery/jquery.min.js">
</script>
<script
src="./plugins/bootstrap/js/bootstrap.bundle.min.js"></scrip
t>
<script src="./dist/js/adminlte.min.js"></script>
<script src="./plugins/iCheck/ichack.min.js"></script>
<script src="./dist/js/validator.min.js"></script>
</body>

</html>

```

Sourcode Dashboard

```

<?php
session_start();
ini_set('date.timezone', 'Asia/Jakarta');
include_once "class/validasi.php";
include_once "class/library.php";
$lib = new library();
$mod = @$_GET['mod'];
$validasi = new validasi();
$id_user = (int)@$_SESSION['seskmeans_id'];
if (@$_SESSION['seskmeans_user'] == "") {
header("location:login.php");
} else {
$tipe_user_nama = "";
$tipe_user = 0;
if (@$_SESSION['seskmeans_tipe'] == 2) {

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$tipe_user_nama = "Operator";
$tipe_user = 2;
} elseif (@$_SESSION['seskmeans_tipe'] == 3) {
$tipe_user_nama = "Admin";
$tipe_user = 3;
}
?>
<!DOCTYPE html>
<html>

<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-
scale=1, maximum-scale=1, user-scalable=no" name="viewport">
<meta http-equiv="x-ua-compatible" content="ie=edge">

<title>Aplikasi Loyalitas Penjualan Barang</title>
<link rel="shortcut icon" type="image/png"
href="./dist/img/logo.png">
<link rel="stylesheet" href="./plugins/fontawesome-
free/css/all.min.css">
<link rel="stylesheet"
href="./plugins/overlayScrollbars/css/OverlayScrollbars.min.
css">
<link rel="stylesheet"
href="./plugins/select2/css/select2.css">
<link rel="stylesheet" href="./plugins/daterangepicker-
master/daterangepicker.css">
<link rel="stylesheet" href="./dist/css/adminlte.css">
<link
href="https://fonts.googleapis.com/css?family=Source+Sans+Pr
o:300,400,400i,700" rel="stylesheet">

<link rel="stylesheet" href="./plugins/ekko-lightbox/ekko-
lightbox.css">
<link rel="stylesheet"
href="./plugins/summernote/summernote-bs4.css">
<link rel="stylesheet" href="./plugins/datatables-
bs4/css/dataTables.bootstrap4.css">
<link rel="stylesheet" href="./dist/css/tabel.css">
<link rel="stylesheet" href="./plugins/jquery-ui/jquery-
ui.min.css">

<script language="JavaScript">
function gettime() {

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var today = new Date();
var dd = today.getDate();
var mm = today.getMonth() + 1; //January is 0!

var yyyy = today.getFullYear();
if (dd < 10) {
  dd = '0' + dd;
}
if (mm < 10) {
  mm = '0' + mm;
}
var tgl = dd + '/' + mm + '/' + yyyy;

var hr = today.getHours();
var m = today.getMinutes();
var s = today.getSeconds();
if (hr < 10) {
  hr = "0" + hr
}
if (m < 10) {
  m = "0" + m
}
if (s < 10) {
  s = "0" + s
}
document.getElementById('tgl_waktu').innerHTML = tgl + " "
+ hr + ":" + m;
setTimeout("gettime()", 60000)
}
</script>

</head>

<body class="hold-transition sidebar-mini layout-fixed
layout-navbar-fixed layout-footer-fixed text-sm"
onload="gettime()">
<div class="wrapper">
<!-- Navbar -->
<nav class="main-header navbar navbar-expand navbar-primary
navbar-dark">
<!-- Left navbar links -->
<ul class="navbar-nav">
<li class="nav-item">
<a class="nav-link" data-widget="pushmenu" href="#"><i
class="fas fa-bars"></i></a>

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</li>
<li>
</ul>
<ul class="navbar-nav">
<li class="nav-item">
<a class="nav-link">
PT Diantrijaya Utama Mukti
</a>
</li>
<li>
</ul>
<!-- Right navbar links -->
<ul class="navbar-nav ml-auto">

<li class="nav-item dropdown notifications-menu">
<a href="#" class="nav-link">
<i class="far fa-clock"></i> <span id="tgl_waktu"></span>
</a>
</li>
<li class="nav-item dropdown user-menu">

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

<span class="d-none d-md-inline"><?php echo
@$_SESSION['seskmeans_nama']; ?></span>
</a>
<ul class="dropdown-menu dropdown-menu-lg dropdown-menu-
right">
<!-- User image -->
<li class="user-header bg-primary">
" style="cursor: pointer"
onClick="document.location='./?p=foto'" title="Ubah foto">
<p>
<?php echo @$_SESSION['seskmeans_nama']; ?>
<small><?php echo @$_tipe_user_nama; ?></small>
</p>
</li>

<!-- Menu Footer-->
<li class="user-footer">
<div class="float-right">

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    <a href="logout.php" class="btn btn-warning btn-flat"><i
class="fas fa-sign-out-alt"></i> Logout</a>
  </div>
  <div class="float-right">
    <a href="?mod=password" class="btn btn-secondary btn-
flat"><i class="fas fa-key"></i> Password</a>
  </div>
</li>
</ul>
</li>

</ul>
</nav>
<!-- /.navbar -->

<!-- Main Sidebar Container -->
<!-- sidebar-light-primary, sidebar-dark-primary -->
<aside class="main-sidebar sidebar-dark-primary elevation-
2">
  <a href="" class="brand-link bg-dark">
    
    <span class="brand-text" style="line-height: 10px; font-
size: 1.2em;"><b>Clustering</b> K-Means
<small></small></span>
  </a>

  <!-- Sidebar -->
  <div class="sidebar">

    <!-- Sidebar Menu -->
    <nav class="mt-2">
      <!--nav-child-indent-->
      <ul class="nav nav-pills nav-sidebar flex-column" data-
widget="treeview" role="menu" data-accordion="false">
        <li class="nav-item">
          <a href="?mod=beranda" class="nav-link <?php if ($mod ==
"" || $mod == "beranda") {
            echo "active";
          } ?>">
            <i class="nav-icon fas fa-home" style="font-
size:0.9em;"></i>
            <p>Beranda</p>
          </a>
        </li>

```

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<!-- Menu Operator -->
<?php if ($tipe_user == 2) { ?>
<li class="nav-item">
  <a href="?mod=alternatif" class="nav-link <?php if ($mod
== "alternatif" || $mod == "alternatif-input") {
    echo "active";
  } ?>">
  <i class="nav-icon fa fa-list-alt" style="font-
size:0.9em;"></i>
  <p>Data Alternatif</p>
</a>
</li>

<li class="nav-item">
  <a href="?mod=kmeans" class="nav-link <?php if ($mod ==
"kmeans") {
    echo "active";
  } ?>">
  <i class="nav-icon fa fa-th-large" style="font-
size:0.9em;"></i>
  <p>Clustering K-Means</p>
</a>
</li>

<?php } ?>
<!-- End Menu Operator -->

<!-- Menu Admin -->
<?php if ($tipe_user == 3) { ?>
<li class="nav-item">
  <a href="?mod=alternatif" class="nav-link <?php if ($mod
== "alternatif" || $mod == "alternatif-input" || $mod ==
"alternatif-import") {
    echo "active";
  } ?>">
  <i class="nav-icon fa fa-list-alt" style="font-
size:0.9em;"></i>
  <p>Data Alternatif</p>
</a>
</li>

<li class="nav-item">
  <a href="?mod=kmeans" class="nav-link <?php if ($mod ==
"kmeans") {

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        echo "active";
    } ?>">
    <i class="nav-icon fa fa-th-large" style="font-size:0.9em;"></i>
    <p>Clustering K-Means</p>
    </a>
</li>

<li class="nav-item has-treeview <?php if ($mod == "kriteria" || $mod == "kriteria-input" || $mod == "periode" || $mod == "periode-input" || $mod == "cluster" || $mod == "cluster-input" || $mod == "pilihan" || $mod == "pilihan-input" || $mod == "cp" || $mod == "cp-input") {
    echo "menu-open";
    } ?>">
    <a href="#" class="nav-link <?php if ($mod == "kriteria" || $mod == "kriteria-input" || $mod == "periode" || $mod == "periode-input" || $mod == "cluster" || $mod == "cluster-input" || $mod == "pilihan" || $mod == "pilihan-input" || $mod == "cp" || $mod == "cp-input") {
        echo "active";
    } ?>">
    <i class="nav-icon fa fa-cogs" style="font-size:0.9em;"></i>
    <p>Pengaturan<i class="right fas fa-angle-left"></i></p>
    </a>
    <ul class="nav nav-treeview">
    <li class="nav-item">
    <a href="?mod=kriteria" class="nav-link <?php if ($mod == "kriteria" || $mod == "kriteria-input") {
        echo "active";
    } ?>">
    <i class="fa fa-angle-right nav-icon" style="font-size:0.8em;"></i>
    <p>Kriteria</p>
    </a>
    </li>
    <li class="nav-item">
    <a href="?mod=pilihan" class="nav-link <?php if ($mod == "pilihan" || $mod == "pilihan-input") {
        echo "active";
    } ?>">
    <i class="fa fa-angle-right nav-icon" style="font-size:0.8em;"></i>
    <p>Kriteria [Pilihan]</p>

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</a>
</li>
<li class="nav-item">
  <a href="?mod=cluster" class="nav-link <?php if ($mod ==
"cluster" || $mod == "cluster-input") {
    echo "active";
  } ?>">
  <i class="fa fa-angle-right nav-icon" style="font-
size:0.8em;"></i>
  <p>Cluster</p>
</a>
</li>
<li class="nav-item">
  <a href="?mod=cp" class="nav-link <?php if ($mod == "cp"
|| $mod == "cp-input") {
    echo "active";
  } ?>">
  <i class="fa fa-angle-right nav-icon" style="font-
size:0.8em;"></i>
  <p>Center Points</p>
</a>
</li>
</ul>
</li>

<li class="nav-item">
  <a href="?mod=pengguna" class="nav-link <?php if ($mod ==
"pengguna" || $mod == "pengguna-input") {
    echo "active";
  } ?>">
  <i class="nav-icon fa fa-user-shield" style="font-
size:0.9em;"></i>
  <p>Pengguna</p>
</a>
</li>
<?php } ?>

</ul>
</nav>
<!-- /.sidebar-menu -->
</div>
<!-- /.sidebar -->
</aside>

<!-- Content Wrapper. Contains page content -->

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<div class="content-wrapper" style="margin-bottom:45px;">
<?php
if ($mod == "beranda" || $mod == "") {
    include "pages/home.php";
} elseif ($mod == "alternatif" && ($tipe_user == 3 ||
$tipe_user == 2)) {
    include "pages/lst_alternatif.php";
} elseif ($mod == "alternatif-input" && ($tipe_user == 3 ||
$tipe_user == 2)) {
    include "pages/inp_alternatif.php";
} elseif ($mod == "alternatif-import" && ($tipe_user == 3
|| $tipe_user == 2)) {
    include "pages/import_alternatif.php";
} elseif ($mod == "kmeans") {
    include "pages/lst_kmeans.php";
} elseif ($mod == "pengguna" && $tipe_user == 3) {
    include "pages/lst_pengguna.php";
} elseif ($mod == "pengguna-input" && $tipe_user == 3) {
    include "pages/inp_pengguna.php";
} elseif ($mod == "kriteria" && $tipe_user == 3) {
    include "pages/lst_kriteria.php";
} elseif ($mod == "kriteria-input" && $tipe_user == 3) {
    include "pages/inp_kriteria.php";
} elseif ($mod == "cluster" && $tipe_user == 3) {
    include "pages/lst_cluster.php";
} elseif ($mod == "cluster-input" && $tipe_user == 3) {
    include "pages/inp_cluster.php";
} elseif ($mod == "pilihan" && $tipe_user == 3) {
    include "pages/lst_kriteria_pilihan.php";
} elseif ($mod == "pilihan-input" && $tipe_user == 3) {
    include "pages/inp_kriteria_pilihan.php";
} elseif ($mod == "cp" && $tipe_user == 3) {
    include "pages/lst_cp.php";
} elseif ($mod == "cp-input" && $tipe_user == 3) {
    include "pages/inp_cp.php";
} elseif ($mod == "password") {
    include "pages/inp_password.php";
}
?>
</div>
<!-- /.content-wrapper -->

<!-- Main Footer -->
<footer class="main-footer">
<strong>Loyalitas Penjualan Barang</strong>

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<div class="float-right d-none d-sm-inline-block">
  <b>Sistem</b> K-Means<strong></strong>
</div>
</footer>
</div>
<!-- ./wrapper -->

<!-- REQUIRED SCRIPTS -->
<script src="./plugins/jquery/jquery.min.js"></script>
<script src="./plugins/jquery-ui/jquery-
ui.min.js"></script>
<script
src="./plugins/bootstrap/js/bootstrap.bundle.min.js"></scrip
t>
<script
src="./plugins/select2/js/select2.full.min.js"></script>
<script
src="./plugins/overlayScrollbars/js/jquery.overlayScrollbars
.min.js"></script>
<script src="./dist/js/adminlte.js"></script>
<script
src="./plugins/datatables/jquery.dataTables.js"></script>
<script src="./plugins/datatables-
bs4/js/dataTables.bootstrap4.js"></script>
<script src="./dist/js/validator.min.js"></script>
<script src="./plugins/daterangepicker-
master/moment.min.js"></script>
<script src="./plugins/daterangepicker-
master/daterangepicker.js"></script>
<script src="./plugins/moment/moment.min.js"></script>
<script src="./plugins/input-
mask/jquery.inputmask.js"></script>
<script src="./plugins/input-
mask/jquery.inputmask.date.extensions.js"></script>
<script src="./plugins/input-
mask/jquery.inputmask.extensions.js"></script>
<script src="./plugins/jquery-
repeater/jquery.repeater.js"></script>
<script src="./plugins/summernote/summernote-
bs4.min.js"></script>
<script src="./plugins/bs-custom-file-input/bs-custom-file-
input.min.js"></script>
<script src="./plugins/ekko-lightbox/ekko-
lightbox.min.js"></script>
<!-- ChartJS 1.0.1 -->

```

```

<script src="./plugins/chartjs/Chart.min.js"></script>
<script src="./dist/js/app.min.js"></script>
<script src="./dist/js/chart_home.js"></script>
<?php
$col_sort = 1;
$sort_tipe = "asc";
?>
<script>
$(document).ready(function() {

bsCustomFileInput.init();

$('.openPopup').on('click', function() {
    var dataURL = $(this).attr('data-href');
    var dataTitle = $(this).attr('data-title');
    $('.modal-body').load(dataURL, function() {
        $('.modal-title').text(dataTitle);
        $('#modalViewData').modal({
            show: true
        });
    });
});

$('.openHapus').on('click', function() {
    var dataURL = $(this).attr('data-href');
    var dataTitle = $(this).attr('data-title');
    $('.modal-title').text('Hapus Data?');
    $('.modal-body').html('Anda yakin akan menghapus data
<u><b>' + dataTitle + '</b></u> ini?');
    $('.modal-footer').html('<button type="button" class="btn
btn-default" data-dismiss="modal">Batal</button><a href="' +
dataURL + '" class="btn btn-danger">Hapus</a>');
    $('#modalHapus').modal({
        show: true
    });
});

//Datemask dd/mm/yyyy
$("[data-mask]").inputmask();

//Datatable
$("#tabel_data_simple1, #tabel_data_simple2").DataTable({
    "paging": true,
    "lengthChange": false,
    "searching": false,

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"ordering": false,
"info": false,
"autoWidth": false
});

var t = $('#tabel_data').DataTable({
  "oLanguage": {
    "sSearch": "Pencarian:",
    "sLengthMenu": "Tampilkan _MENU_ baris",
    "sZeroRecords": "Data tidak ditemukan (kosong).",
    "sInfo": "Baris (_START_ sampai _END_) dari total _TOTAL_
baris",
    "sInfoEmpty": "Nol (0) Baris",
    "sInfoFiltered": " - dari _MAX_ baris"
  },
  "columnDefs": [{
    "searchable": false,
    "orderable": false,
    "targets": 'no_sort'
  }],
  "order": []
});

t.on('order.dt search.dt', function() {
  t.column(0, {
    search: 'applied',
    order: 'applied'
  }).nodes().each(function(cell, i) {
    cell.innerHTML = i + 1;
  });
}).draw();

//Select2
function modelMatcher(params, data) {
  data.parentText = data.parentText || "";

  // Always return the object if there is nothing to compare
  if ($.trim(params.term) === '') {
    return data;
  }

  // Do a recursive check for options with children
  if (data.children && data.children.length > 0) {
    // Clone the data object if there are children

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// This is required as we modify the object to remove any
non-matches
var match = $.extend(true, {}, data);

// Check each child of the option
for (var c = data.children.length - 1; c >= 0; c--) {
  var child = data.children[c];
  child.parentText += data.parentText + " " + data.text;

  var matches = modelMatcher(params, child);

  // If there wasn't a match, remove the object in the array
  if (matches == null) {
    match.children.splice(c, 1);
  }
}

// If any children matched, return the new object
if (match.children.length > 0) {
  return match;
}

// If there were no matching children, check just the
plain object
return modelMatcher(params, match);
}

// If the typed-in term matches the text of this term, or
the text from any
// parent term, then it's a match.
var original = (data.parentText + ' ' +
data.text).toUpperCase();
var term = params.term.toUpperCase();

// Check if the text contains the term
if (original.indexOf(term) > -1) {
  return data;
}

// If it doesn't contain the term, don't return anything
return null;
}

$('.select2').select2({
```

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    matcher: modelMatcher
  });
$(".select3").select2();
$(".select4").select2();
$(".select5").select2();

});
</script>

</body>

</html>
<?php } ?>

```

Sourcode Data Alternatif

```

<?php
include_once "class/crudAlternatif.php";
include_once "class/crudKriteria.php";
include_once "class/crudKriteriaPilihan.php";

$crud = new crudAlternatif();
$_kriteria = new crudKriteria();
$_pilihan = new crudKriteriaPilihan();
?>
<section class="content-header">
</section>

<section class="content">
  <div class="container-fluid">

    <div class="row">

      <div class="col-md-12">
        <div class="card card-primary">
          <div class="card-header">
            <h4 class="m-0">Daftar Alternatif</h4>
          </div>
          <div class="card-body table-responsive">
            <?php
            $con = "";
            if (@$_GET['con'] != "") { ?>
            <div class="alert alert-success alert-dismissable">

```

```

<button type="button" class="close" data-dismiss="alert"
aria-hidden="true">&times;</button>
<i class="icon fa fa-check"></i>
<?php
if (@$_GET['con'] == 1) {
    echo "Data berhasil ditambah.";
} elseif (@$_GET['con'] == 2) {
    echo "Data berhasil diubah.";
} elseif (@$_GET['con'] == 3) {
    echo "Data berhasil dihapus.";
}
?>
</div>
<?php } ?>
<?php
$d_kriteria = $_kriteria->getKriteria();
$jml_kriteria = count($d_kriteria);
?>
<table class="csstable responsive" id="tabel_data"
width="100%" border="0" cellpadding="4" cellspacing="0">
<thead>
<tr>
<th width="20" class="no_sort" rowspan="2">No</th>
<th width="150" rowspan="2">Kode</th>
<th width="216" rowspan="2">Alternatif</th>
<th width="183" colspan="<?php echo $jml_kriteria; ?>"
style="text-align: center;">Penilaian</th>
<th width="40" rowspan="2" class="no_sort">
<a href="?mod=alternatif-input&stat=tambah" class="btn
btn-primary btn-xs">
<div style="width:40px;"><i class="fa fa-plus"></i></div>
</a>
</th>
</tr>
<tr>
<?php foreach ($d_kriteria as $key => $dkriteria) { ?>
<th><?php echo $dkriteria['nama_kriteria']; ?></th>
<?php } ?>
</tr>
</thead>
<tbody>
<?php
$no = 0;
$result = $crud->getAlternatifAlternatif();
foreach ($result as $key => $data) {

```

```

$no++; ?>
<tr>
<td><?php echo $no; ?></td>
<td><?php echo $data['kode']; ?></td>
<td><?php echo $data['nama_alternatif']; ?></td>
<?php
foreach ($d_kriteria as $key => $dkriteria) {
    $ji = $dkriteria['jenis_input'];
    $nilai = (int)$crud-
>getAlternatifNilai($data['id_alternatif'],
$dkriteria['id_kriteria']);
    $isi = "";
    if ($ji == 1) {
        $isi = $lib->angka($nilai);
    } elseif ($ji == 2) {
        $pil = $_pilihan-
>getKriteriaPilihanByKriteriaNilai($dkriteria['id_kriteria']
, $nilai);
        if ($pil) {
            $isi = $pil[0]['pilihan'];
        }
    }
    ?>
<td><?php echo $isi; ?></td>
<?php } ?>
<td width="40">
<a href="?mod=alternatif-input&stat=ubah&id=<?php echo
$data['id_alternatif']; ?>" class="btn btn-success btn-xs"
title="Ubah"><i class="far fa-edit"></i></a>
<a href="javascript:void(0);" class="btn btn-danger btn-
xs openHapus" title="Hapus" data-title="<?php echo
$data['nama_alternatif']; ?>" data-href="?mod=alternatif-
input&stat=hapus&id=<?php echo $data['id_alternatif'];
?>"><i class="far fa-trash-alt"></i></a>
</td>
</tr>
<?php } ?>
</tbody>
</table>
</div><!-- /.card-body -->
</div><!-- /.card -->
</div><!-- /.col -->

</div><!-- /.row -->
</div>

```

```

</section><!-- /.content -->
<div class="modal fade" id="modalHapus" tabindex="-1"
role="dialog" aria-labelledby="myModalLabel" aria-
hidden="true">
  <div class="modal-dialog">
    <div class="modal-content">
      <div class="modal-header">
        <h4 class="modal-title" id="myModalLabel">Hapus Data?</h4>
        <button type="button" class="close" data-dismiss="modal"
aria-hidden="true">&times;</button>
      </div>
      <div class="modal-body">

</div>
      <div class="modal-footer">
</div>
</div>
</div>
</div>

```

Sourcode Nilai Awal Dan Perhitungan

```

<?php
include_once "class/crudAlternatif.php";
include_once "class/crudKriteria.php";
include_once "class/crudKriteriaPilihan.php";
include_once "class/crudCp.php";
include_once "class/kmeans.php";

$crud=new crudAlternatif();
$_kriteria=new crudKriteria();
$_pilihan=new crudKriteriaPilihan();
$_cp=new crudCp();
$_kmeans=new Kmeans();

$_all_data=[];
$_d_kriteria=[];
$_d_alternatif=[];
$_d_nilai=[];
$_d_cp=[];
?>
<section class="content-header">
</section>

```

```

<section class="content">
  <div class="container-fluid">

    <div class="row">

      <div class="col-md-12">
        <div class="card card-primary">
          <div class="card-header">
            <h4 class="m-0">Clustering K-Means</h4>
          </div>
          <div class="card-body table-responsive">
            <?php
              $con="";
              if(@$_GET['con']!="") { ?>
                <div class="alert alert-success alert-dismissible">
                  <button type="button" class="close" data-dismiss="alert"
                    aria-hidden="true">&times;</button>
                  <i class="icon fa fa-check"></i>
                <?php
                  if(@$_GET['con']==1) { echo "Data berhasil ditambah."; }
                  elseif(@$_GET['con']==2) { echo "Data berhasil diubah."; }
                  elseif(@$_GET['con']==3) { echo "Data berhasil dihapus."; }
                }
              ?>
            </div>
          <?php } ?>

          <!-- Mulai Menampilkan Perhitungan -->
          <div class="row">
            <div class="col-12">
              <!-- Custom Tabs -->
              <div class="card">
                <div class="card-header d-flex p-0">
                  <h3 class="card-title p-3">Nilai Awal dan <span
                    class="text-danger">Perhitungan K-Means</span></h3>
                  <ul class="nav nav-pills ml-auto p-2">
                    <li class="nav-item"><a class="nav-link active"
                      href="#tab_1" data-toggle="tab">Nilai Awal</a></li>
                    <li class="nav-item"><a class="nav-link" href="#tab_2"
                      data-toggle="tab">Perhitungan</a></li>
                  </ul>
                </div><!-- /.card-header -->
                <div class="card-body">
                  <div class="tab-content">
                    <div class="tab-pane active" id="tab_1">

```

```

<?php
    $d_kriteria=$_kriteria->getKriteria();
    //echo"<pre>";print_r($d_kriteria);echo"</pre>";
    $jml_kriteria=count($d_kriteria);
    ?>
    <table class="csstable responsive" id="tabel_data_simple1"
width="100%" border="0" cellpadding="4" cellspacing="0">
    <thead>
    <tr>
    <th width="4%" class="no_sort" rowspan="2">No</th>
    <th width="12%" rowspan="2">Kode</th>
    <th width="15%" rowspan="2">Alternatif</th>
    <th colspan="<?php echo $jml_kriteria; ?>" style="text-
align: center;">Penilaian</th>
    </tr>
    <tr>
    <?php foreach($d_kriteria as $key => $dkriteria) { ?>
    <th><?php echo $dkriteria['nama_kriteria']; ?></th>
    <?php } ?>
    </tr>
    </thead>
    <tbody>
    <?php
    $no=0;
    $result = $crud->getAlternatifAlternatif();
    foreach ($result as $key => $data) {

$d_alternatif[$data['id_alternatif']]=['kode'=>$data['kode']
, 'nama_alternatif'=>$data['nama_alternatif']; /*** K-
MEANS DATA
    $no++; ?>
    <tr>
    <td><?php echo $no; ?></td>
    <td><?php echo $data['kode']; ?></td>
    <td><?php echo $data['nama_alternatif']; ?></td>
    <?php
    foreach($d_kriteria as $key => $dkriteria) {
        $ji=$dkriteria['jenis_input'];
        $nilai=(int)$crud-
>getAlternatifNilai($data['id_alternatif'],
$dkriteria['id_kriteria']);

$d_nilai[$data['id_alternatif']][$dkriteria['id_kriteria']] =
$nilai; /*** K-MEANS DATA

```

```

    $isi="";
    if($ji==1) { $isi=$lib->angka($nilai); }
    elseif($ji==2) {
        $pil=$_pilihan-
>getKriteriaPilihanByKriteriaNilai($dkriteria['id_kriteria']
, $nilai);
        if($pil){ $isi=$pil[0]['pilihan']; }
    }
?>
<td><?php echo $nilai; ?></td>
<?php } ?>
</tr>
<?php } ?>
</tbody>
</table>

<?php
$result = $_cp->getCpCluster();
foreach ($result as $key => $data) {
    foreach($d_kriteria as $key => $dkriteria) {
        $nilai=$_cp->getCpNilai($data['id_cluster'],
$dkriteria['id_kriteria']);
$d_cp[$data['nama_cluster']][$dkriteria['id_kriteria']]=$nilai;
}
}

//echo"<pre>";print_r($all_data);echo"</pre>";

//Hitung K-Means
$hasil=$_kmeans->kmeans($all_data);
//print_r($hasil);
?>

</div>
<!-- /.tab-pane -->
<div class="tab-pane" id="tab_2">

```

```

<?php foreach($_kmeans->perhitungan as $key => $km){ ?>

<h5>Iterasi Ke-<?php echo $key+1; ?></h5>

<!-- Center Points -->
<table class="csstable responsive" width="100%" border="0"
cellpadding="4" cellspacing="0">
  <thead>
    <tr>
      <th width="4%" class="no_sort" rowspan="2">No</th>
      <th width="15%" rowspan="2">Cluster</th>
      <th colspan="<?php echo count($d_kriteria); ?>"
style="text-align: center;">Center Point</th>
    </tr>
    <tr>
      <?php foreach($d_kriteria as $k => $dkriteria) { ?>
      <th><?php echo $dkriteria['nama_kriteria']; ?></th>
      <?php } ?>
    </tr>
  </thead>
  <tbody>
    <?php
    $no=0;
    foreach ($_kmeans->center_points[$key] as $cluster =>
$nilai) {
      $no++; ?>
      <tr>
        <td><?php echo $no; ?></td>
        <td><?php echo $cluster; ?></td>
        <?php
        foreach($d_kriteria as $k => $dkriteria) {
          ?>
          <td><?php echo $nilai[$dkriteria['id_kriteria']]; ?></td>
          <?php } ?>
        </tr>
        <?php } ?>
      </tbody>
    </table>

    <table class="csstable responsive" id="tabel_data_simple1"
width="100%" border="0" cellpadding="4" cellspacing="0">
      <thead>
        <tr>
          <th width="4%" class="no_sort">No</th>
          <th width="12%">Kode</th>

```

```

<th width="15%">Alternatif</th>
<?php foreach($d_cp as $cluster => $dCp) { ?>
<th><?php echo $cluster; ?></th>
<?php } ?>
<th>Cluster</th>
</tr>
</thead>
<tbody>
<?php
$no=0;
foreach ($d_alternatif as $id => $data) {
$no++; ?>
<tr>
<td><?php echo $no; ?></td>
<td><?php echo $data['kode']; ?></td>
<td><?php echo $data['nama_alternatif']; ?></td>
<?php
$clust="";
foreach($d_cp as $cluster => $dCp) {
?>
<td>
<?php
if($_kmeans->hasil_keanggotaan[$key][$id]==$cluster){
echo "<b>".$lib-
>angka_desimal($km[$cluster][$id])."</b>";
$clust=$cluster;
} else {
echo $lib->angka_desimal($km[$cluster][$id]);
}
?>
</td>
<?php } ?>
<td><?php echo $clust; ?></td>
</tr>
<?php } ?>
</tbody>
</table>

<?php } ?>

</div>
</div>
<!-- /.tab-content -->
</div><!-- /.card-body -->
</div>

```

```

<!-- ./card -->
</div>
<!-- /.col -->
</div>
<!-- /.row -->
<!--END Menampilkan Perhitungan -->

<div class="row">
<div class="col-12">
<!-- Custom Tabs -->
<div class="card card-primary card-tabs">
<div class="card-header d-flex p-0">
<h3 class="card-title p-3">Hasil Clustering</span></h3>
</div><!-- /.card-header -->
<div class="card-body">
<table class="csstable responsive" id="tabel_data"
width="100%" border="0" cellpadding="4" cellspacing="0">
<thead>
<tr>
<th width="4%" class="no_sort" rowspan="2">No</th>
<th width="12%" rowspan="2">Kode</th>
<th width="15%" rowspan="2">Alternatif</th>
<th colspan="<?php echo $jml_kriteria; ?>" style="text-align: center;">Penilaian</th>
<th width="10%" rowspan="2">Hasil</th>
</tr>
<tr>
<?php foreach($d_kriteria as $key => $dkriteria) { ?>
<th><?php echo $dkriteria['nama_kriteria']; ?></th>
<?php } ?>
</tr>
</thead>
<tbody>
<?php
$no=0;
$result = $crud->getAlternatifAlternatif();
foreach ($result as $key => $data) {
$no++; ?>
<tr>
<td><?php echo $no; ?></td>
<td><?php echo $data['kode']; ?></td>
<td><?php echo $data['nama_alternatif']; ?></td>
<?php
foreach($d_kriteria as $key => $dkriteria) {
$ji=$dkriteria['jenis_input'];

```

```

    $nilai=(int)$crud-
>getAlternatifNilai($data['id_alternatif'],
$dkriteria['id_kriteria']);
    $isi="";
    if($ji==1) { $isi=$lib->angka($nilai); }
    elseif($ji==2) {
    $pil=$_pilihan-
>getKriteriaPilihanByKriteriaNilai($dkriteria['id_kriteria']
, $nilai);
    if($pil){ $isi=$pil[0]['pilihan']; }
    }
    ?>
    <td><?php echo $isi; ?></td>
    <?php } ?>
    <!--<td><b><?php echo @$hasil[$data['id_alternatif']];
?></b></td>-->
    <td><b><?php echo @$_kmeans-
>hasil_akhirnya[$data['id_alternatif']]; ?></b></td>
    </tr>
    <?php } ?>

    </tbody>
</table>

</div><!-- /.card-body -->
</div>
<!-- ./card -->
</div>
<!-- /.col -->
</div>
<!-- /.row -->

</div><!-- /.card-body -->
</div><!-- /.card -->
</div><!-- /.col -->

</div><!-- /.row -->
</div>
</section><!-- /.content -->

```