**LISTING PROGRAM**

1. Login.php

<form name="login" action="cek\_login.php" method="POST" onSubmit="return validasi(this)">

<div class="formRow">

Username :

<div class="field">

<input type="text" name="id\_user">

<input type="hidden" name="level" value='admin'>

</div>

</div>

<div class="formRow">

Password :

<div class="field">

<input type="password" name="password">

</div>

</div>

</div>

<div class="signupButton">

<br/><input type="submit" name="submit" id="submit" value="Login" />

</div>

</form>

1. Objek.php

<?php

class objek {

private $cluster = null;

var $data = array();

function \_\_construct($dt) {

$this->data = $dt;

}

public function setCluster($cls){

$jml = 0;

$tmpCluster = 0;

$c = null;

for ($i=0;$i<count($cls);$i++){

$jml = 0;

for ($j=0;$j<count($this->data);$j++){

$jml += pow(($this->data[$j] - $cls[$i][$j]),2);

}

$tmpC = sqrt($jml);

if ($c==null){

$c = $tmpC;

$tmpCluster = $i;

}

if ($tmpC < $c){

$c = $tmpC;

$tmpCluster = $i;

}

}

$this->cluster = $tmpCluster;

}

public function getCluster(){

return $this->cluster;

}

}

?>

1. Data.php

<div style="float:left;width:480px;">

<div style="width:800px;text-align:center;font-weight:bold;padding:7px; background:#e3e3e3; margin-bottom:20px;">DATA PENILAIAN SISWA</div>

<?php

include "../config/koneksi.php";

if (isset($\_POST[submit])){

mysql\_query("insert into objek (nama\_objek, data1,data2,data3,data4,data5,data6,data7,data8,data9,data10) VALUES ('$\_POST[namaobjek]','$\_POST[data1]','$\_POST[data2]','$\_POST[data3]','$\_POST[data4]','$\_POST[data5]','$\_POST[data6]','$\_POST[data7]','$\_POST[data8]','$\_POST[data9]','$\_POST[data10]')");

echo "<script>window.alert('Sukses Memasukkan Data Baru. . .');

window.location=('semua-data.html')</script>";

}

if ($\_GET[idd] != ''){

mysql\_query("DELETE FROM objek where id\_objek=$\_GET[idd]");

echo "<script>window.alert('Sukses Menghapus Data Objek. . .');

window.location=('semua-data.html')</script>";

}

?>

<TR>

<TABLE width="450px" border="1" cellpadding="0" cellspacing="0" id="data">

<tbody>

<TR bgcolor="#cecece">

<Th style='width:70px;' > Nama Siswa</Th>

<Th><center>A</center></Th>

<Th><center>B</center></Th>

<Th><center>C</center></Th>

<Th><center>D</center></Th>

<Th><center>E</center></Th>

<Th><center>F</center></Th>

<Th><center>G</center></Th>

<Th><center>H</center></Th>

<Th><center>I</center></Th>

<Th><center>J</center></Th>

<Th></Th>

</TR>

</tbody>

<tbody>

<TR>

<form action="semua-data.html" method="POST">

<TD><INPUT style='background:lightblue' type="text" size="15" name="namaobjek"/></TD>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data1"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data2"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data3"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data4"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data5"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data6"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data7"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data8"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data9"/>

<TD><INPUT style='background:lightblue' type="text" size="3" name="data10"/>

<TD><input type='submit' name='submit' value='Tambahkan'>

</form>

</TD>

</TR>

<?php

$query = mysql\_query("SELECT \* FROM objek ORDER BY id\_objek DESC");

$no = $no + 1;

while ($r = mysql\_fetch\_array($query)){

echo "<TR>

<TD><input size='15' type='text' value='$r[nama\_objek]' name='namaobjek'></TD>

<TD><INPUT type='text' size='3' name='objek' value='$r[data1]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data2]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data3]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data4]' readonly='on'/>

TD><INPUT type='text' size='3' name='objek' value='$r[data5]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data6]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data7]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data8]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data9]' readonly='on'/>

<TD><INPUT type='text' size='3' name='objek' value='$r[data10]' readonly='on'/>

<td><input style='color:red' type=button value='Hapus Data' click=\"window.location.href='data.php?idd=$r[id\_objek]';\"></TD>

</TR>";

no++;

}

?>

</tbody>

</TABLE>

</div>

<?php

if (isset($\_POST[submit1])){

mysql\_query("insert into centroid (data\_centroid) VALUES ('$\_POST[centroid]')");

echo "<script>window.alert('Sukses Memasukkan Centroid Baru. . .');

window.location=('semua-data.html')</script>";

}

if ($\_GET[id] != ''){

mysql\_query("DELETE FROM centroid where id\_centroid=$\_GET[id]");

echo "<script>window.alert('Sukses Menghapus Data Centroid. . .');

window.location=('semua-data.html')</script>";

}

?>

</div>

<form action="hasil.html" target="\_BLANK" method="POST">

<?php

$querye = mysql\_query("SELECT \* FROM objek ORDER BY id\_objek DESC");

while ($r = mysql\_fetch\_array($querye)){

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data1]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data2]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data3]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data4]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data5]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data6]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data7]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data8]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data9]'/>";

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data10]'/>";

}

?>

<?php

$queryye = mysql\_query("SELECT \* FROM centroid ORDER BY id\_centroid DESC");

while ($r = mysql\_fetch\_array($queryye)){

echo "<INPUT type='hidden' size='38' name='cluster[]' value='$r[data\_centroid]'/>";

}

?>

<div style="float:left;width:950px;margin-top:30px;text-align:center; margin-bottom:20px;"></div>

</form>

<div style="float:left;width:480px;">

<div style="width:800px; text-align:center;font-weight:bold;padding:7px; background:#e3e3e3; margin-bottom:20px;">DATA CLUSTER</div>

<div><strong>Keterangan:</strong> C1 = Kelas A ; C2 = Kelas B;</div>

<TABLE width="450px" border="1" cellpadding="0" cellspacing="0" id="cluster">

<tbody>

<TR bgcolor="#cecece">

<Th style='width:72px;'> Cluster</Th>

<Th>A</Th>

<Th>B</Th><Th>C</Th> <Th>D</Th><Th>E</Th><Th>F</Th><Th>G</Th><Th>H</Th><Th>I</Th>

<Th>J</Th><td></td>

</TR>

<TD> Input </TD>

<form action="semua-data.html" method="POST">

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><INPUT style='background:lightblue' type="text" size="5" name="centroid"/></td>

<td><input type='submit' name='submit1' value='Tambahkan'></td>

</form>

</TR>

1. Media.php

<?php

session\_start();

error\_reporting(0);

include "../config/koneksi.php";

include "../config/session\_manager.php";

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<title>Taman Kanak Kanak</title>

<link href="../layout/style.css" rel="stylesheet" type="text/css" />

<script src="tiny\_mce/tiny\_mce.js" type="text/javascript"></script>

<script src="tiny\_mce/tiny\_gugun.js" type="text/javascript"></script>

</head>

<body>

<div id="container\_wrapper">

<div id="container">

<div id="header">

<div id="inner\_header">

</div>

</div>

<div id="top">

<span class="cpojer-links"> <center>

<a href='home'>Beranda</a>

<a href='profile.html'>Profile TK</a>

<a href='semua-data.html'>Data Penilaian</a>

<a href='hasil.html'>Hasil Clustering</a>

<a href='diagram.html'>Diagram</a>

<a href='../logout.php'>Logout</a> </center>

</span>

</div>

<div id="left\_column">

<div class="text\_area" align="justify">

<?php include "content.php"; ?>

<br/>

/div>

<div style='clear:both;'></div>

/div>

<div id="footer">

</div>

</div>

</div>

</body>

</html>

1. Diagram.php

<?php

include "jpgraph/src/jpgraph.php";

include "jpgraph/src/jpgraph\_scatter.php";

include "titik.php";

include "centroid.php";

$graph = new Graph(600,400);

$graph->SetScale("linlin");

$graph->img->SetMargin(40,40,40,40);

$graph->SetShadow();

$graph->title->Set("Merah : C1 , Kuning : C2, Biru : Laris");

$graph->title->SetFont(FF\_FONT1,FS\_BOLD);

$sp2 = new ScatterPlot($datay,$datax);

$sp1 = new ScatterPlot($daty,$datx);

$sp1->mark->SetFillColor("red");

$sp1->mark->SetWidth(8);

$graph->Add($sp2);

$graph->Add($sp1);

$graph->Stroke();

?>

1. Kmeans.php

<?php

class ClusteringKMean {

private $objek = array();

private $centroidCluster = null;

private $cekObjCluster = null;

public function \_\_construct($obj,$cnt) {

$this->centroidCluster = $cnt;

for ($i=0;$i<count($obj);$i++){

$this->objek[$i] = new objek($obj[$i]);

$this->cekObjCluster[$i] = 0;

}

}

public function setClusterObjek($itr){

echo "<table width='100%;' cellpadding=0 cellspacing=0>

<tr><th colspan='100'>ITERASI ".$itr."</th></tr>

<tr><th>Objek</th>";

for ($i=0;$i<count($this->objek[0]->data);$i++){

echo "<th>Data ".($i+1)."</th>";

}

for ($j=0;$j<count($this->centroidCluster);$j++){

echo "<th>Cluster ".($j+1)."</th>";

}

echo "</tr>";

for ($i=0;$i<count($this->objek);$i++){

$this->objek[$i]->setCluster($this->centroidCluster);

echo "<tr><td>Objek ".($i+1)."</td>";

for ($j=0;$j<count($this->objek[$i]->data);$j++)

echo "<td>".$this->objek[$i]->data[$j]."</td>";

for ($j=0;$j<count($this->centroidCluster);$j++){

if ($j == $this->objek[$i]->getCluster())

echo "<td style='color:green'>OK</td>";

else echo "<td style='color:red'>&nbsp; Null</td>";

}

echo "</tr>";

}

echo "</table><br><br>";

$cek = TRUE;

for ($i=0;$i<count($this->cekObjCluster);$i++){

if ($this->cekObjCluster[$i]!=$this->objek[$i]->getCluster()){

$cek = FALSE;

break;

}

}

if ((!($cek))&&($itr<20)){

for ($i=0;$i<count($this->cekObjCluster);$i++){

$this->cekObjCluster[$i] = $this->objek[$i]->getCluster();

}

$this->setCentroidCluster();

$this->setClusterObjek($itr+1);

}else{

echo "<table border=1 style='width:100%; background:lightgreen;' ><tr>";

for ($i=0;$i<count($this->centroidCluster);$i++){

echo "<td>Cluster ".($i+1)." -> ";

for ($j=0;$j<count($this->centroidCluster[$i]);$j++){

echo $this->centroidCluster[$i][$j]."&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;";

}

echo "</td>";

}

echo "</tr></table><br><br><br>";

}

}

private function setCentroidCluster(){

for ($i=0;$i<count($this->centroidCluster);$i++){

$countObj = 0;

$x = array();

for ($j=0;$j<count($this->objek);$j++){

if ($this->objek[$j]->getCluster()==$i){

for ($k=0;$k<count($this->objek[$j]->data);$k++){

$x[$k] += $this->objek[$j]->data[$k];

}

$countObj++;

}

}

for ($k=0;$k<count($this->centroidCluster[$i]);$k++){

if ($countObj>0)

$this->centroidCluster[$i][$k] = $x[$k]/$countObj;

else{

echo "<font color='red'>Terdapat ketidak sesuai Nilai Awal Cluster</font><br>";

break;

}

}

}

}

}

?>

1. Hasil.php

<html>

<head>

<style>

table{

border : 1px solid #000;

text-align : center;

font-family:tahoma;

font-size:12px;

}

table tr th{

border : 1px solid #000;

background : #cecece;

color : #000;

padding:3px;

}

table tr td{

border : 1px solid #000;

}

</style>

</head>

<body>

<?php

include "objek.php";

include "ClusteringKMean.php";

for ($i=0;$i<count($\_POST[objek]);$i++){

$obj = $\_POST[objek];

$data = explode(",",$obj[$i]);

for ($j=0;$j<count($data);$j++){

$objek[$i][$j] = $data[$j];

}

}

for ($i=0;$i<count($\_POST[cluster]);$i++){

$cls = $\_POST[cluster];

$data = explode(",",$cls[$i]);

for ($j=0;$j<count($data);$j++){

$centroid[$i][$j] = $data[$j];

}

}

//K-MEAN

echo "<div style='width:100%; text-align:center;font-weight:bold;padding:7px; background:#e3e3e3; margin-bottom:20px;'>Hasil Proses Clustering </div>";

if (isset($\_POST[tekan])){

echo "<div style='width:100%; float:left;'>";

$clustering = new ClusteringKMean($objek, $centroid);

$clustering->setClusterObjek(1);

echo "</div>";

}else{

echo "<center style='padding:50px; padding-bottom:20px;'>Maaf, Anda Belum Melakukan Proses Clustering Data.<br> Lakukan Proses Clustering (K-Means) Data melalui Tombol Dibawah ini.</center>";

?>

<form action="hasil.html" target="\_BLANK" method="POST">

<?php

$querye = mysql\_query("SELECT \* FROM objek ORDER BY id\_objek DESC");

while ($r = mysql\_fetch\_array($querye)){

echo "<INPUT type='hidden' size='40' name='objek[]' value='$r[data]'/>";

}

?>

<?php

$queryye = mysql\_query("SELECT \* FROM centroid ORDER BY id\_centroid DESC");

while ($r = mysql\_fetch\_array($queryye)){

echo "<INPUT type='hidden' size='38' name='cluster[]' value='$r[data\_centroid]'/>";

}

?>

<div style="float:left;width:950px;margin-top:0px;text-align:center; margin-bottom:20px;"><button style='padding:10px 130px 10px 130px; margin-bottom:60px;' name='tekan' type="submit">Lakukan Proses Clustering Terhadap Data Sekarang !!!</button></div>

</form>

<?php

}

?>

</body>

</html>