# **Tugas Pemograman 2**



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**Source Code**

package com.p2.sesi9;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.util.logging.Level;

import java.util.logging.Logger;

import java.math.BigDecimal;

import java.util.Scanner;

import java.lang.String;

import java.sql.ResultSet;

import java.text.SimpleDateFormat;

import java.util.Date;

import java.text.ParseException;

import java.lang.reflect.InvocationTargetException;

public class Main{

public static void main(String[] args){

Scanner data = new Scanner(System.in);

int pilih = 0;

int pilihSub = 0;

while(pilih != 6){

System.out.println("=================");

System.out.println("MENU PILIHAN");

System.out.println("1. Tampil daftar mahasiswa");

System.out.println("2. Input mahasiswa");

System.out.println("3. Pencarian mahasiswa");

System.out.println("4. Tampil daftar mata kuliah");

System.out.println("5. Tambah mata kuliah");

System.out.println("6. Keluar");

System.out.print("Masukan Pilihan Anda : ");

pilih = data.nextInt();

data.nextLine();

if(pilih == 1){

try{

//koneksi ke database dengan nama sesi09, dengan username root, dan password "" (kosong)

Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/sesi09","root","");

String sql = "SELECT \* FROM mahasiswa ";

PreparedStatement psTampil = c.prepareStatement(sql);

ResultSet rs = psTampil.executeQuery();

while(rs.next()){

//mendapatkan nilai hasil ResultSet berdasarkan nama kolom pada tabelnya

System.out.println("------------------------------");

System.out.println("NIM : " + rs.getInt("nim"));

System.out.println("Nama : " + rs.getString("nama"));

System.out.println("Alamat : " + rs.getString("alamat"));

System.out.println("Semester : " + rs.getInt("semester"));

System.out.println("------------------------------");

}

c.close();

}

catch(SQLException SE){

SE.printStackTrace();

}

}

else if(pilih == 2){

System.out.println("--------------------------------");

System.out.println("Input Data Mahasiswa");

System.out.println("--------------------------------");

System.out.println("Masukkan NIM : ");

String nim = data.nextLine();

System.out.println("Masukkan nama : ");

String nama = data.nextLine();

System.out.println("Masukkan alamat : ");

String alamat = data.nextLine();

System.out.println("Masukkan semester : ");

int semester = data.nextInt();

try{

Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/sesi09","root","");

String sql = "insert into mahasiswa (nim, nama, alamat, semester) values (?,?,?,?)";

PreparedStatement ps = c.prepareStatement(sql);

//men-set parameter yang dibutuhkan untuk string query sql nya

ps.setString(1, nim);

ps.setString(2, nama);

ps.setString(3, alamat);

ps.setInt(4, semester);

ps.executeUpdate();

c.close();

}

catch(SQLException SE){

SE.printStackTrace();

}

}

else if(pilih == 3){

System.out.println("--------------------------------");

System.out.println("Pencarian Data Mahasiswa");

System.out.println("--------------------------------");

//buat nampung id mahasiswa buat nanti kalau mau ditambahkan mata kuliah

int tempIDMhs;

System.out.println("Masukkan NIM mahasiswa : ");

String nim = data.nextLine();

try{

Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/sesi09","root","");

String sql = "SELECT \* FROM mahasiswa where nim = ?";

PreparedStatement ps = c.prepareStatement(sql);

ps.setString(1, nim);

ResultSet rs = ps.executeQuery();

while(rs.next()){

if(rs.getString("nim")!=""){

System.out.println("DATA MAHASISWA YANG DITEMUKAN : ");

System.out.println("NIM : " + rs.getInt("nim"));

System.out.println("Nama : " + rs.getString("nama"));

System.out.println("Alamat : " + rs.getString("alamat"));

System.out.println("Semester : " + rs.getInt("semester"));

//ID Mahasiswa diambil jika ingin menambahkan Mata Kuliah

tempIDMhs = rs.getInt("id");

do{

System.out.println("--------------------------------");

System.out.println("MENU PENCARIAN MAHASISWA");

System.out.println("--------------------------------");

System.out.println("1. Edit data Mahasiswa");

System.out.println("2. Tambah Mata Kuliah");

System.out.println("3. Keluar");

System.out.println("Pilihan Anda : ");

pilihSub = data.nextInt();

data.nextLine();

if(pilihSub == 1){

System.out.println("Masukkan NIM : ");

String nimE = data.nextLine();

System.out.println("Masukkan Nama : ");

String namaE = data.nextLine();

System.out.println("Masukkan Alamat : ");

String alamatE = data.nextLine();

System.out.println("Masukkan Semester : ");

int semesterE = data.nextInt();

try{

String sqlEdit = "update mahasiswa set nim=?, nama=?, alamat=?, semester=? where id=?";

PreparedStatement psEdit = c.prepareStatement(sqlEdit);

psEdit.setString(1, nimE);

psEdit.setString(2, namaE);

psEdit.setString(3, alamatE);

psEdit.setInt(4, semesterE);

psEdit.setInt(5, tempIDMhs); //id diambil dari id pencarian yang telah ditemukan tadi..

psEdit.executeUpdate();

}

catch(SQLException SE){

SE.printStackTrace();

}

}

else if(pilihSub == 2){

int count = 0; //untuk menghitung jumlah row yang direturn ResultSet nya

int inputdua;

//NGAMBIL LIST MATA KULIAH YANG UDAH ADA DI TABEL

String sqla = "SELECT \* FROM matkul";

PreparedStatement psTampila = c.prepareStatement(sqla);

ResultSet rsa = psTampila.executeQuery();

while(rsa.next()){

count++;

System.out.println("------------------------------");

System.out.println(count + " .");

System.out.println("kode: " + rsa.getString("kode"));

System.out.println("nama MK: " + rsa.getString("namaMK"));

System.out.println("jumlah SKS: " + rsa.getInt("jmlSks"));

System.out.println("tgl UAS: " + rsa.getDate("tglUas"));

System.out.println("------------------------------");

}

System.out.println("masukkan pilihan Anda : ");

inputdua = data.nextInt();

//Melakukan pemasukan data ke tabel mk\_ambil

try{

String sqlb = "insert into mk\_ambil (idMhs, idMk) values (?,?)";

PreparedStatement psb = c.prepareStatement(sqlb);

psb.setInt(1, tempIDMhs); //id diambil dari id pencarian yang telah ditemukan tadi..

psb.setInt(2, inputdua);

psb.executeUpdate();

}

catch(SQLException SE){

SE.printStackTrace();

}

}

}

while(pilihSub != 3);

}

}

}

catch(SQLException SE){

SE.printStackTrace();

}

}else if(pilih == 4){

try{

Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/sesi09","root","");

String sql = "SELECT \* FROM matkul";

PreparedStatement psTampil = c.prepareStatement(sql);

ResultSet rs = psTampil.executeQuery();

while(rs.next()){

System.out.println("------------------------------");

System.out.println("kode: " + rs.getString("kode"));

System.out.println("nama MK: " + rs.getString("namaMK"));

System.out.println("jumlah SKS: " + rs.getInt("jmlSks"));

System.out.println("tgl UAS: " + rs.getDate("tglUas"));

System.out.println("------------------------------");

}

c.close();

}

catch(SQLException SE){

SE.printStackTrace();

}

}else if(pilih == 5){

System.out.println("--------------------------------");

System.out.println("Input Mata Kuliah");

System.out.println("--------------------------------");

System.out.println("Masukkan kode Mata Kuliah: ");

String kode = data.nextLine();

System.out.println("Masukkan nama Mata Kuliah: ");

String namaMK = data.nextLine();

System.out.println("Masukkan jumlah SKS: ");

int jmlSks = data.nextInt();

data.nextLine();

System.out.println("Masukkan tanggal UAS (DD-MM-YYYY) : ");

String tglUas = data.nextLine();

try{

try{

Connection c = DriverManager.getConnection("jdbc:mysql://localhost:3306/sesi09","root","");

String sql = "insert into matkul (kode, namaMK, jmlSks, tglUas) values (?,?,?,?)";

PreparedStatement ps = c.prepareStatement(sql);

////HANDLING INPUTAN TANGGAL/////////////////

//pendeklarasian format date dalam string

final String OLD\_FORMAT = "dd-MM-yyyy";

final String NEW\_FORMAT = "yyyy-MM-dd";

//memasukan variabel tanggal ke oldDateString

String oldDateString = tglUas;

String newDateString;

//mengkonversi format dari format lama ke format baru

SimpleDateFormat sdf = new SimpleDateFormat(OLD\_FORMAT);

Date d = sdf.parse(oldDateString);

sdf.applyPattern(NEW\_FORMAT);

newDateString = sdf.format(d);

/////////////////////////////////////////////

ps.setString(1, kode);

ps.setString(2, namaMK);

ps.setInt(3, jmlSks);

ps.setString(4, newDateString);

ps.executeUpdate();

c.close();

}

catch(SQLException SE){

SE.printStackTrace();

}

}

catch(ParseException PE){

//parsing tanggal

PE.printStackTrace();

}

}

}

System.out.println("Untuk keluar, tekan ENTER");

data.nextLine();

}

}

**Screenshots**

