ACTIVITY PERTEMUAN 3

NAMA   : Arya Wahyu Wijaya

NPM   : 50421223

KELAS   : 4IA14

MATERI   : ORM DAN HIBERNATE
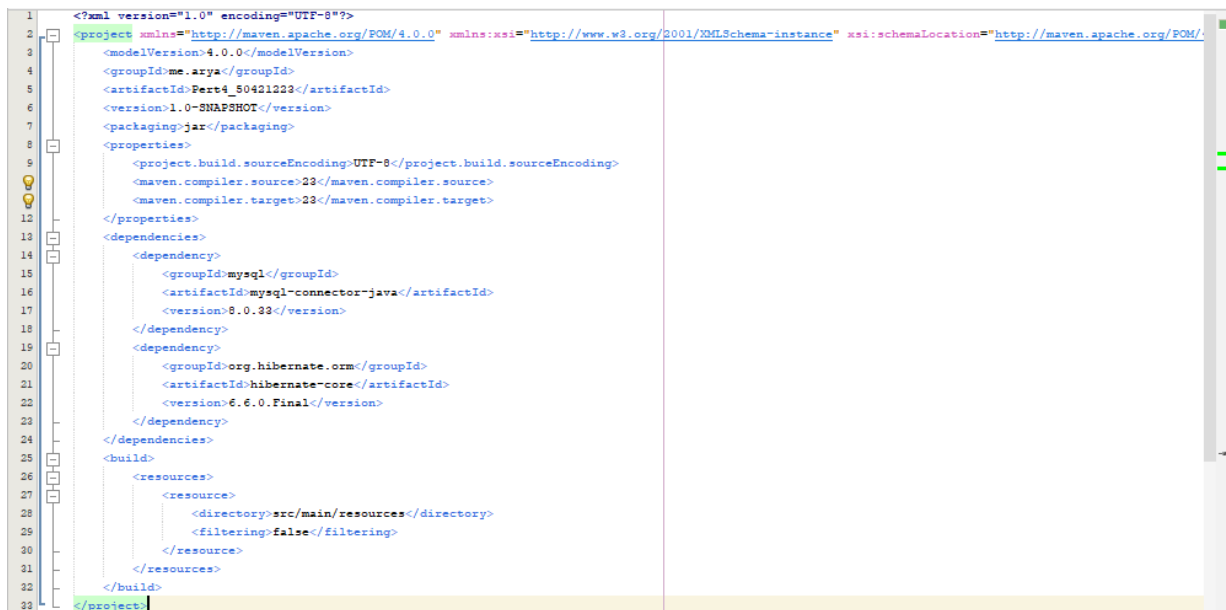
MATA PRAKTIKUM : RPL 2

SOAL:

1. Screenshot Kode dan Output!

JAWAB:

1.

KODE:

- pom.xml
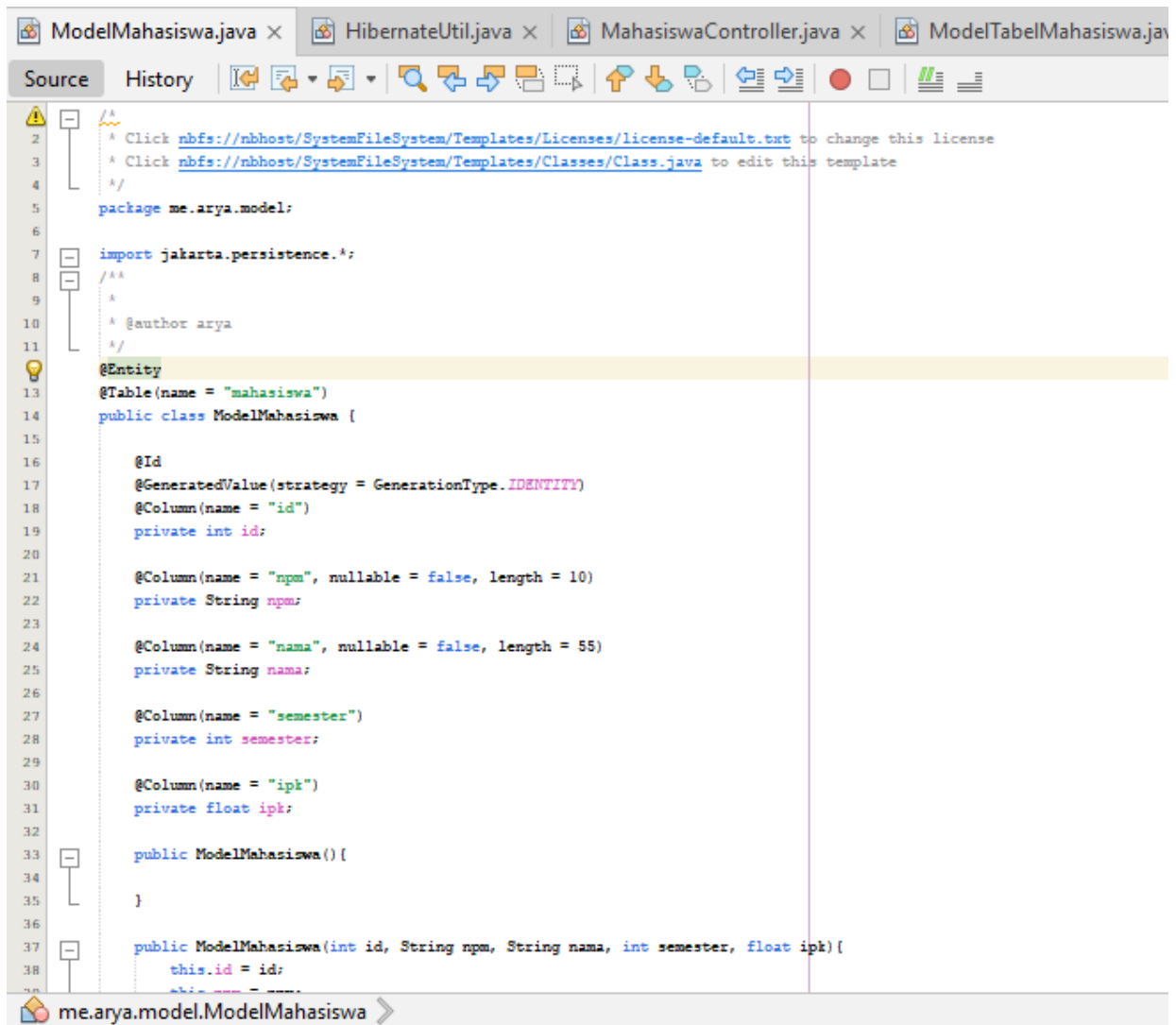

- MahasiswaController.java

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package me.arya.controller;

import me.arya.model.HibernateUtil;
import me.arya.model.ModelMahasiswa;
import java.util.List;
import org.hibernate.Session;
import org.hibernate.Transaction;
import org.hibernate.query.Query;

/**
 *
 * @author arya
 */
public class MahasiswaController {

    public void addMhs(ModelMahasiswa mhs) {
        Transaction trx = null;
        try (Session session = HibernateUtil.getSessionFactory().openSession()) {
            trx = session.beginTransaction();
            session.save(mhs);
            trx.commit();
        }catch(Exception e){
            if(trx != null) trx.rollback();
            e.printStackTrace();
        }
    }
    public void updateMhs(ModelMahasiswa mhs){
```
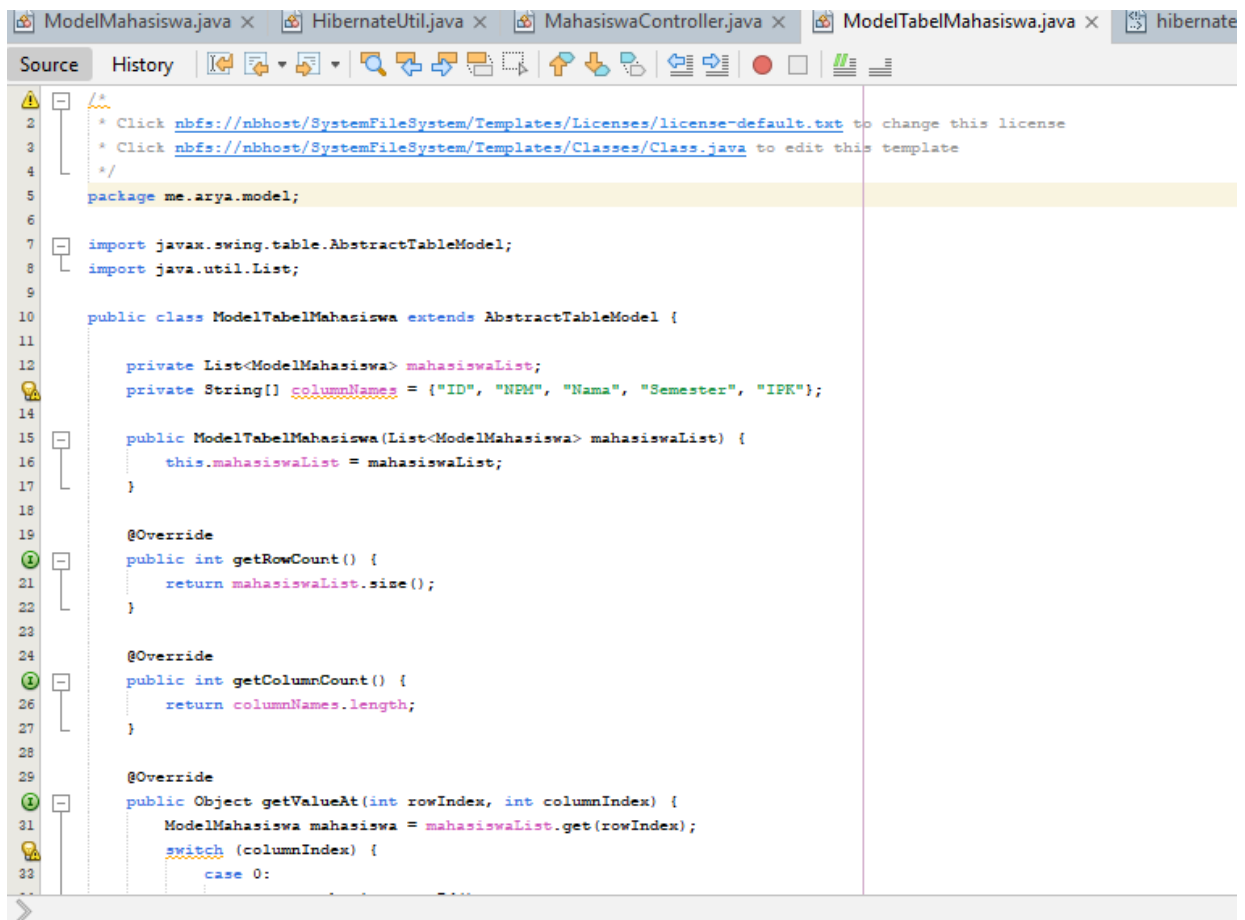
- HibernateUtil.java

```java
/*
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 */
package me.arya.model;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;

public class HibernateUtil {
    private static SessionFactory sessionFactory;

    static {
        try {
            sessionFactory = new Configuration().configure().buildSessionFactory();
        } catch (Throwable ex) {
            System.err.println("Initial SessionFactory creation failed." + ex);
            throw new ExceptionInInitialiserError(ex);
        }
    }

    public static SessionFactory getSessionFactory() {
        return sessionFactory;
    }

    public static void testConnection() {
        try (Session session = sessionFactory.openSession()) {
            System.out.println("Connection to the database was successful!");
        } catch (Exception e) {
            System.err.println("Failed to connect to the database.");
            e.printStackTrace();
        }
    }
}
```

- ModelMahasiswa.java


```java
/*
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 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package me.arya.model;

import jakarta.persistence.*;
/**
 *
 * @author arya
 */
@Entity
@Table(name = "mahasiswa")
public class ModelMahasiswa {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "id")
    private int id;

    @Column(name = "npm", nullable = false, length = 10)
    private String npm;

    @Column(name = "nama", nullable = false, length = 55)
    private String nama;

    @Column(name = "semester")
    private int semester;

    @Column(name = "ipk")
    private float ipk;

    public ModelMahasiswa(){

    }

    public ModelMahasiswa(int id, String npm, String nama, int semester, float ipk){
        this.id = id;
```
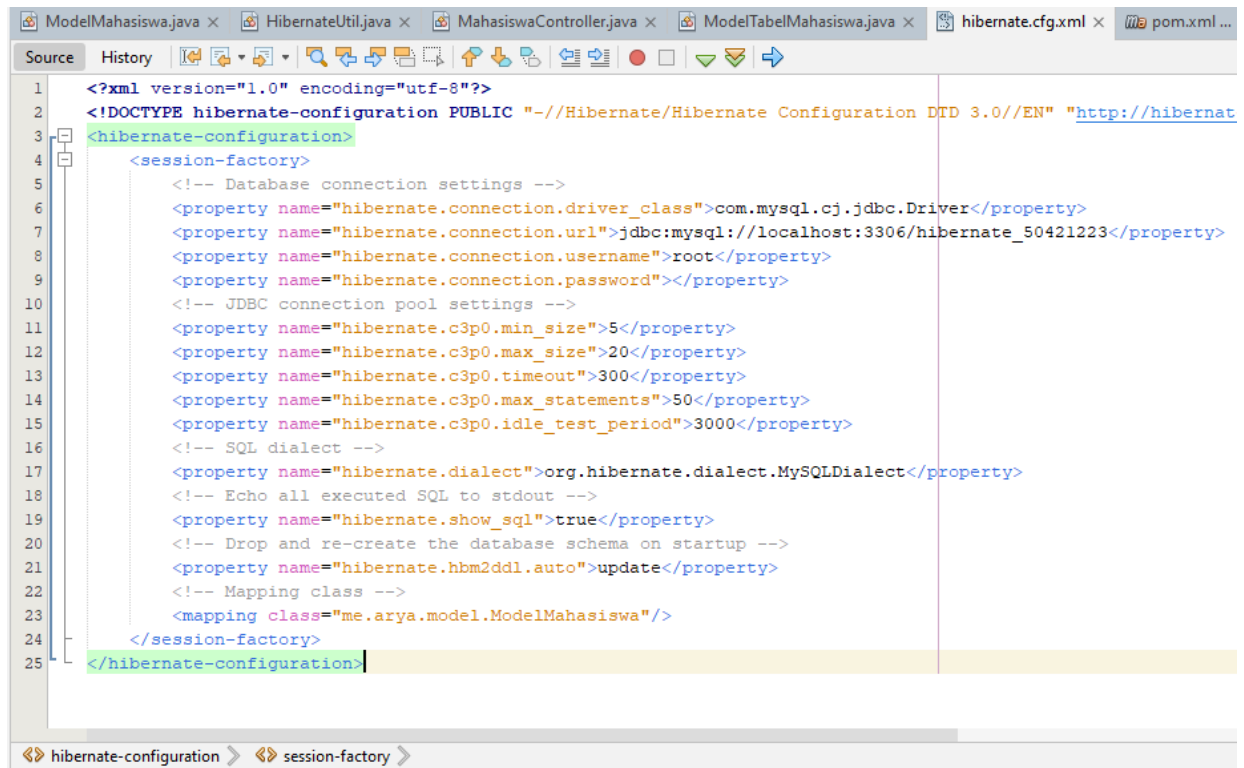
me.arya.model.ModelMahasiswa
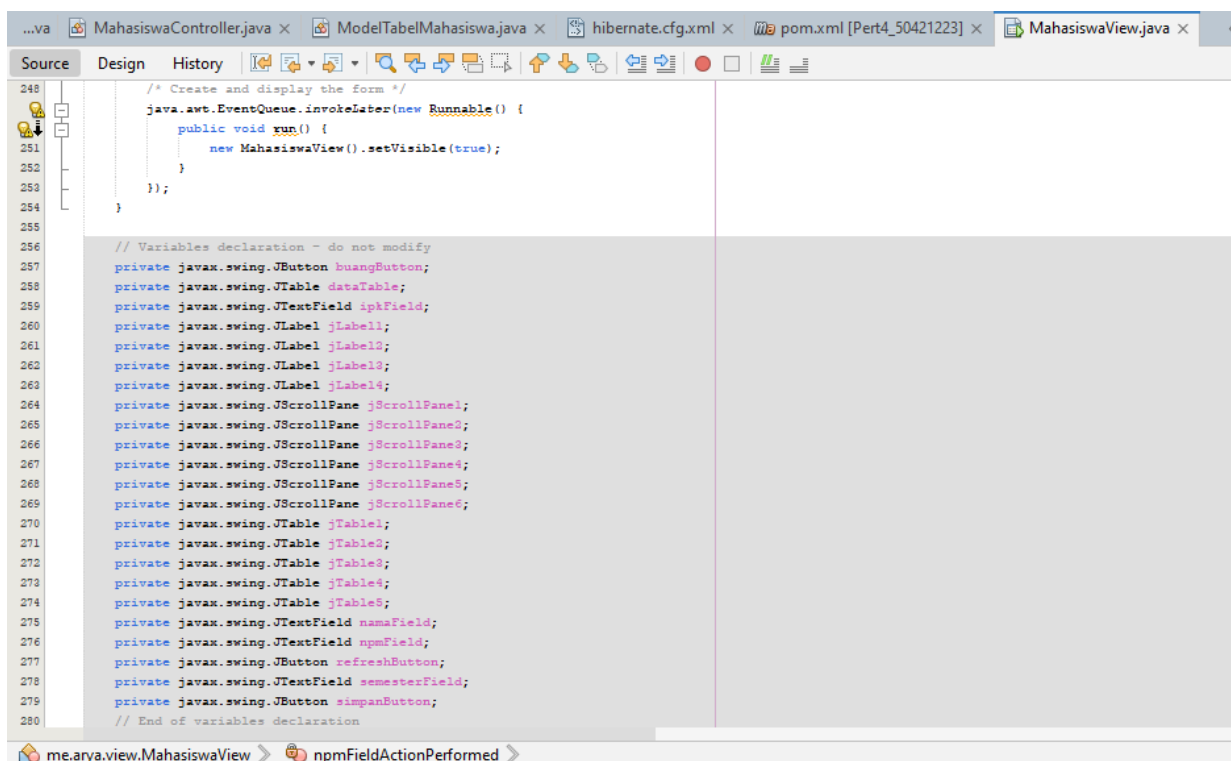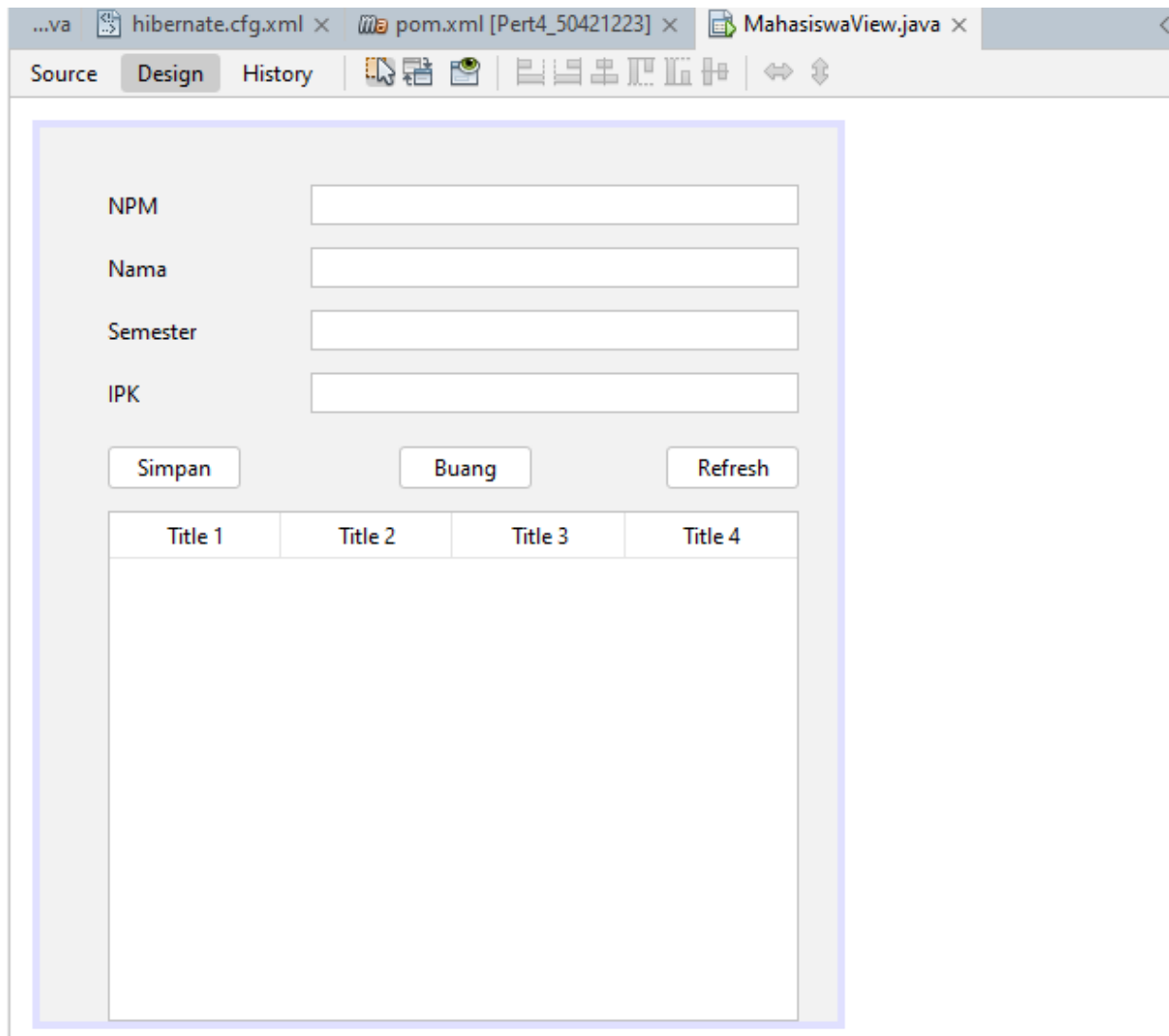
- ModelTabelMahasiswa.java

Source | History

```java
/*
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 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package me.arya.model;

import javax.swing.table.AbstractTableModel;
import java.util.List;

public class ModelTabelMahasiswa extends AbstractTableModel {

    private List<ModelMahasiswa> mahasiswaList;
    private String[] columnNames = {"ID", "NPM", "Nama", "Semester", "IPK"};

    public ModelTabelMahasiswa(List<ModelMahasiswa> mahasiswaList) {
        this.mahasiswaList = mahasiswaList;
    }

    @Override
    public int getRowCount() {
        return mahasiswaList.size();
    }

    @Override
    public int getColumnCount() {
        return columnNames.length;
    }

    @Override
    public Object getValueAt(int rowIndex, int columnIndex) {
        ModelMahasiswa mahasiswa = mahasiswaList.get(rowIndex);
        switch (columnIndex) {
            case 0:
```

- MahasiswaView.java

NPM

Nama

Semester

IPK

| Simpan | Buang | Refresh |

Title 1	Title 2	Title 3	Title 4

```java
248            /* Create and display the form */
               java.awt.EventQueue.invokeLater(new Runnable() {
250                public void run() {
251                    new MahasiswaView().setVisible(true);
252                }
253            });
254        }
255
256        // Variables declaration - do not modify
257        private javax.swing.JButton buangButton;
258        private javax.swing.JTable dataTable;
259        private javax.swing.JTextField ipkField;
260        private javax.swing.JLabel jLabel1;
261        private javax.swing.JLabel jLabel2;
262        private javax.swing.JLabel jLabel3;
263        private javax.swing.JLabel jLabel4;
264        private javax.swing.JScrollPane jScrollPane1;
265        private javax.swing.JScrollPane jScrollPane2;
266        private javax.swing.JScrollPane jScrollPane3;
267        private javax.swing.JScrollPane jScrollPane4;
268        private javax.swing.JScrollPane jScrollPane5;
269        private javax.swing.JScrollPane jScrollPane6;
270        private javax.swing.JTable jTable1;
271        private javax.swing.JTable jTable2;
272        private javax.swing.JTable jTable3;
273        private javax.swing.JTable jTable4;
274        private javax.swing.JTable jTable5;
275        private javax.swing.JTextField namaField;
276        private javax.swing.JTextField npmField;
277        private javax.swing.JButton refreshButton;
278        private javax.swing.JTextField semesterField;
279        private javax.swing.JButton simpanButton;
280        // End of variables declaration
```

- hibernate.cfg.xml

OUTPUT

NPM

Nama

Semester

IPK

| Simpan | Buang | Refresh |

Title 1	Title 2	Title 3	Title 4

NPM

Nama

Semester

IPK

| Simpan | Buang | Refresh |

ID	NPM	Nama	Semester	IPK
1	50421223	Arya Anth...	7	4.0

NPM

Nama

Semester

IPK

Hapus Mahasiswa ×

Simpan

Masukkan ID yang ingin di hapus : 1

ID

1

OK   Cancel

Sukses ×

(i) Data berhasil dihapus

Re

OK   K

0