

ACTIVITY PERTEMUAN 4

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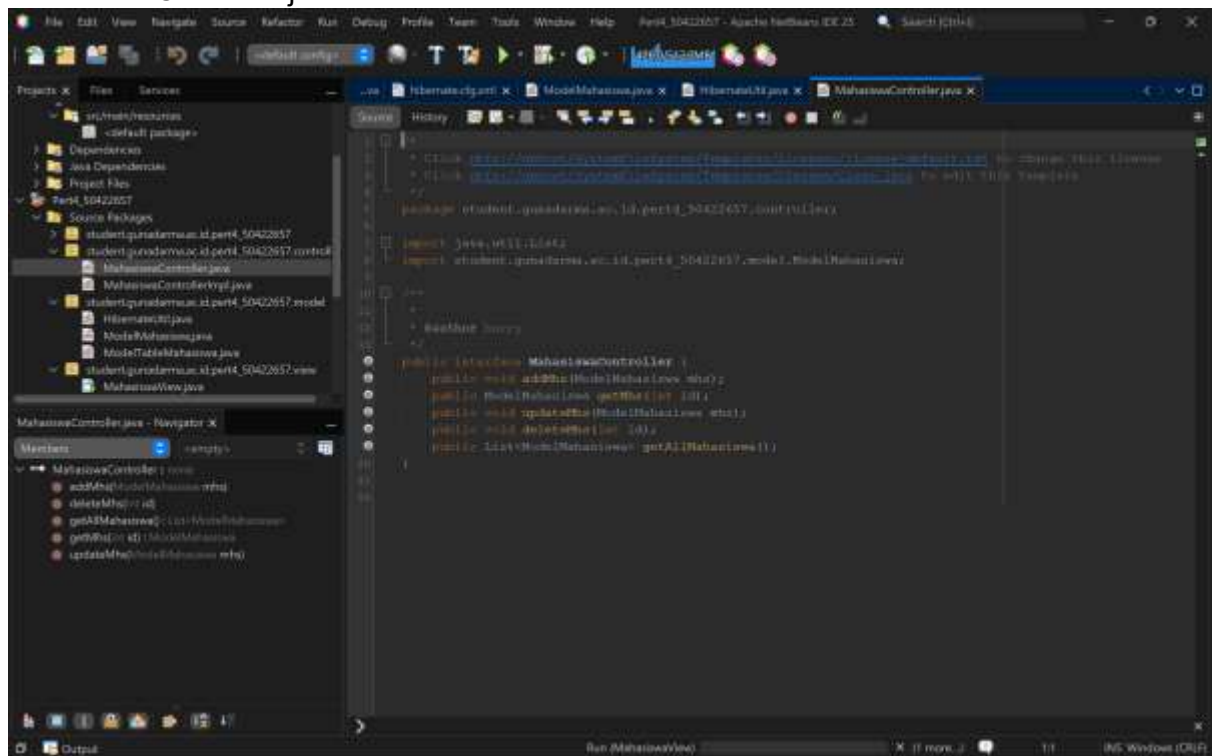
KELAS : 4IA01

MATERI : ORM

MATA PRAKTIKUM : Rekayasa Perangkat Lunak 2

1. Screenshot kode dan output dari program yang telah dibuat.

- MahasiswaController.java



- MahasiswaControllerImpl.java

```

import org.hibernate.Session;
import org.hibernate.Transaction;
import org.hibernate.util.SessionFactory;
import org.hibernate.cfg.Configuration;

public class MahasiswaControllerImpl implements MahasiswaController {

    @Override
    public void addMahasiswa(Mahasiswa mhs) {
        Transaction tx = null;

        try (Session session = HibernateUtil.getSessionFactory().openSession()) {
            tx = session.beginTransaction();
            session.save(mhs);
            tx.commit();
        } catch (Exception e) {
            tx.rollback();
            e.printStackTrace();
        }

    }

    @Override
    public void updateMahasiswa(Mahasiswa mhs) {
        Transaction tx = null;

        try (Session session = HibernateUtil.getSessionFactory().openSession()) {
            tx = session.beginTransaction();
            session.update(mhs);
            tx.commit();
        } catch (Exception e) {
            tx.rollback();
            e.printStackTrace();
        }

    }
}

```

- HibernateUtil.java

```

import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;
import org.hibernate.util.SessionFactory;

public class HibernateUtil {

    static SessionFactory sessionFactory;

    static {
        try {
            // Create the SessionFactory from hibernate.cfg.xml
            sessionFactory = new Configuration().configure().buildSessionFactory();
        } catch (Throwable ex) {
            // Make sure you log the exception, as it might be swallowed
            System.err.println("SessionFactory creation failed." + ex);
            throw new RuntimeException(ex);
        }
    }

    public static SessionFactory getSessionFactory() {
        return sessionFactory;
    }

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

```

- ModelMahasiswa.java

