

1.pom.xml

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
    http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>com.example</groupId>
  <artifactId>CitizenPassportHibernate</artifactId>
  <version>1.0</version>

  <dependencies>
    <!-- Hibernate Core -->
    <dependency>
      <groupId>org.hibernate.orm</groupId>
      <artifactId>hibernate-core</artifactId>
      <version>6.3.1.Final</version>
    </dependency>

    <!-- JPA API -->
    <dependency>
      <groupId>jakarta.persistence</groupId>
      <artifactId>jakarta.persistence-api</artifactId>
      <version>3.1.0</version>
    </dependency>

    <!-- MySQL JDBC Driver -->
    <dependency>
      <groupId>com.mysql</groupId>
      <artifactId>mysql-connector-j</artifactId>
      <version>8.3.0</version>
    </dependency>

    <!-- Logging -->
    <dependency>
      <groupId>org.jboss.logging</groupId>
      <artifactId>jboss-logging</artifactId>
      <version>3.5.0.Final</version>
    </dependency>
  </dependencies>
</project>
```

Hibernate.cfg.xml

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE hibernate-configuration PUBLIC
  "-//Hibernate/Hibernate Configuration DTD 3.0//EN"
  "http://hibernate.sourceforge.net/hibernate-configuration-3.0.dtd">

<hibernate-configuration>
  <session-factory>
```

```

    <property
name="hibernate.connection.driver_class">com.mysql.cj.jdbc.Driver</property>
    <property
name="hibernate.connection.url">jdbc:mysql://localhost:3306/citizen_db</property>
    <property name="hibernate.connection.username">root</property>
    <property name="hibernate.connection.password">yourpassword</property>

    <property
name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
    <property name="hibernate.hbm2ddl.auto">update</property>
    <property name="show_sql">true</property>

    <mapping class="com.example.entity.Citizen"/>
    <mapping class="com.example.entity.Passport"/>
</session-factory>
</hibernate-configuration>

```

3.HibernateUtil.java

```

package com.example.util;

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

public class HibernateUtil {
    private static final SessionFactory sessionFactory;

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

    public static SessionFactory getSessionFactory() {
        return sessionFactory;
    }
}

```

4.Citizen.java

```

package com.example.entity;

import jakarta.persistence.*;

@Entity
public class Citizen {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int id;
}

```

```

private String name;

@OneToOne(cascade = CascadeType.ALL)
@JoinColumn(name = "passport_id", referencedColumnName = "id")
private Passport passport;

public Citizen() {}

public Citizen(String name, Passport passport) {
    this.name = name;
    this.passport = passport;
}

// Getters and setters
public int getId() { return id; }
public void setId(int id) { this.id = id; }

public String getName() { return name; }
public void setName(String name) { this.name = name; }

public Passport getPassport() { return passport; }
public void setPassport(Passport passport) { this.passport = passport; }
}

```

5.Passport.java

```

package com.example.entity;

import jakarta.persistence.*;

@Entity
public class Passport {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int id;

    private String passportNumber;

    public Passport() {}

    public Passport(String passportNumber) {
        this.passportNumber = passportNumber;
    }

    // Getters and setters
    public int getId() { return id; }
    public void setId(int id) { this.id = id; }

    public String getPassportNumber() { return passportNumber; }
}

```

```
    public void setPassportNumber(String passportNumber) { this.passportNumber =
passportNumber; }
}
```

6.App.java

```
package com.example.app;
```

```
import com.example.entity.Citizen;
import com.example.entity.Passport;
import com.example.util.HibernateUtil;
import org.hibernate.Session;
import org.hibernate.Transaction;
```

```
public class App {
    public static void main(String[] args) {
        // Create a Citizen and Passport
        Citizen citizen = new Citizen();
        citizen.setName("Susanna");

        Passport passport = new Passport("A12345678");
        citizen.setPassport(passport);

        // Save to DB
        Session session = HibernateUtil.getSessionFactory().openSession();
        Transaction tx = session.beginTransaction();

        session.persist(citizen);

        tx.commit();
        session.close();

        System.out.println("Citizen and Passport saved successfully!");

        // Retrieve data
        Session readSession = HibernateUtil.getSessionFactory().openSession();
        Citizen c = readSession.get(Citizen.class, citizen.getId());

        System.out.println("Retrieved Citizen: " + c.getName());
        System.out.println("With Passport No: " +
c.getPassport().getPassportNumber());

        readSession.close();
    }
}
```