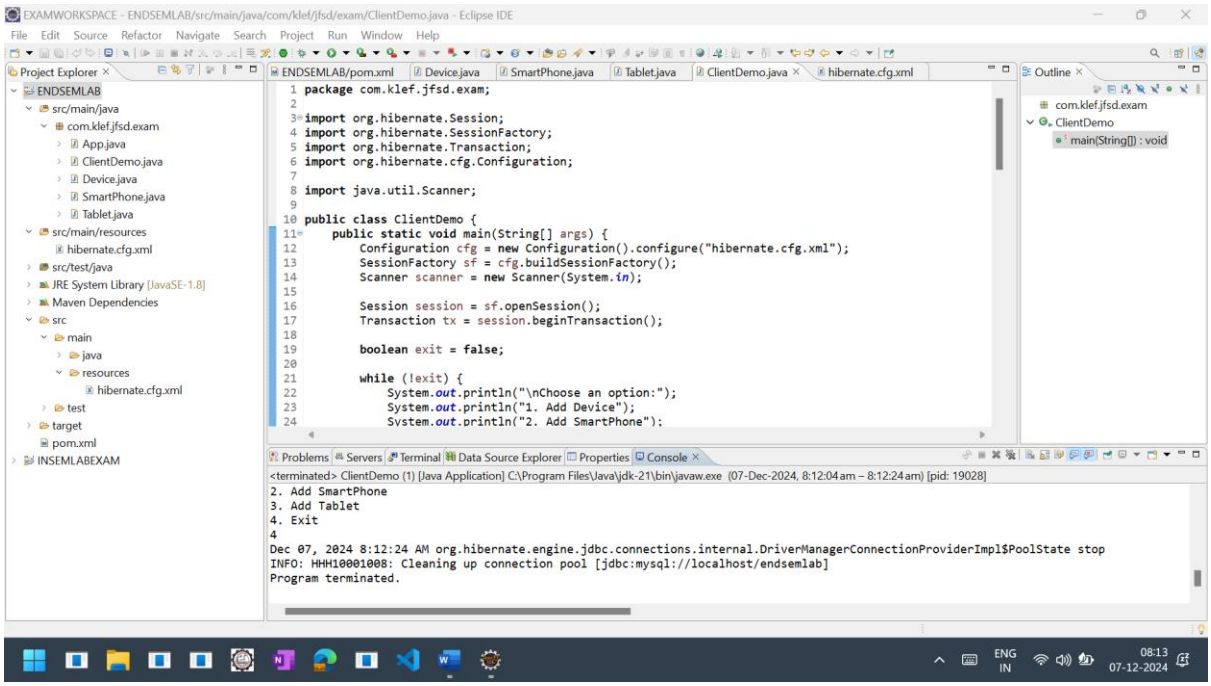



```
package com.klef.jfsd.exam;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import org.hibernate.cfg.Configuration;

import java.util.Scanner;

public class ClientDemo {

  public static void main(String[] args) {

    Configuration cfg = new Configuration().configure("hibernate.cfg.xml");

    SessionFactory sf = cfg.buildSessionFactory();

    Scanner scanner = new Scanner(System.in);

    Session session = sf.openSession();

    Transaction tx = session.beginTransaction();
```

```
boolean exit = false;

while (!exit) {
  System.out.println("\nChoose an option:");
  System.out.println("1. Add Device");
  System.out.println("2. Add SmartPhone");
  System.out.println("3. Add Tablet");
  System.out.println("4. Exit");

  int choice = scanner.nextInt();
  scanner.nextLine();

  switch (choice) {
    case 1:
      Device d = new Device();
      System.out.println("Enter Device ID: ");
      d.setId(scanner.nextInt());
      scanner.nextLine();
      System.out.println("Enter Device Brand: ");
      d.setBrand(scanner.nextLine());
      System.out.println("Enter Device Model: ");
      d.setModel(scanner.nextLine());
      System.out.println("Enter Device Price: ");
      d.setPrice(scanner.nextDouble());
      session.save(d);
      System.out.println("Device added successfully!");
      break;
```

```
case 2:
    SmartPhone sp = new SmartPhone();
    System.out.println("Enter SmartPhone ID: ");
    sp.setId(scanner.nextInt());
    scanner.nextLine();
    System.out.println("Enter SmartPhone Brand: ");
    sp.setBrand(scanner.nextLine());
    System.out.println("Enter SmartPhone Model: ");
    sp.setModel(scanner.nextLine());
    System.out.println("Enter SmartPhone Price: ");
    sp.setPrice(scanner.nextDouble());
    scanner.nextLine();
    System.out.println("Enter Camera Specification: ");
    sp.setCamera(scanner.nextLine());
    System.out.println("Enter Operating System: ");
    sp.setOs(scanner.nextLine());
    session.save(sp);
    System.out.println("SmartPhone added successfully!");
    break;

case 3:
    Tablet tb = new Tablet();
    System.out.println("Enter Tablet ID: ");
    tb.setId(scanner.nextInt());
    scanner.nextLine();
    System.out.println("Enter Tablet Brand: ");
    tb.setBrand(scanner.nextLine());
```

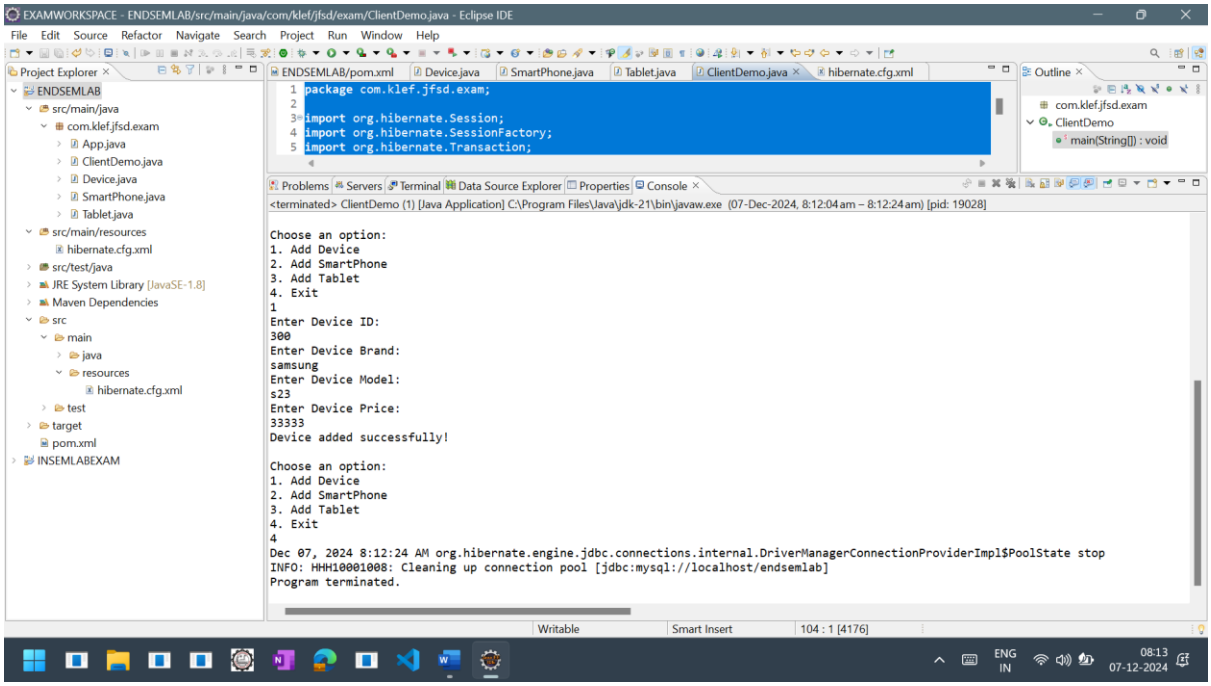
```
            System.out.println("Enter Tablet Model: ");
            tb.setModel(scanner.nextLine());
            System.out.println("Enter Tablet Price: ");
            tb.setPrice(scanner.nextDouble());
            scanner.nextLine();
            System.out.println("Enter Battery Life: ");
            tb.setBattery(scanner.nextLine());
            System.out.println("Enter Screen Size: ");
            tb.setScreensize(scanner.nextDouble());
            session.save(tb);
            System.out.println("Tablet added successfully!");
            break;

        case 4:
            exit = true;
            break;

        default:
            System.out.println("Invalid choice. Please try again.");
            break;
    }
}

tx.commit();
session.close();
sf.close();
scanner.close();
System.out.println("Program terminated.");
```

```
    }
}
```




```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE hibernate-configuration PUBLIC
  "-//Hibernate/Hibernate Configuration DTD 5.3//EN"
  "http://hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>
        <session-factory>
                <property name="hbm2ddl.auto">update</property>
                <property
name="dialect">org.hibernate.dialect.MySQL5Dialect</property>
                <property
name="connection.url">jdbc:mysql://localhost/endsemlab</property>
                <property name="connection.username">root</property>
                <property name="connection.password">admin</property>
                <property
name="connection.driver_class">com.mysql.cj.jdbc.Driver</property>
```

```
            <mapping class="com.klef.jfsd.exam.Device"/>
            <mapping class="com.klef.jfsd.exam.SmartPhone"/>
            <mapping class="com.klef.jfsd.exam.Tablet"/>
        </session-factory>
</hibernate-configuration>
package com.klef.jfsd.exam;

import javax.persistence.Entity;
import javax.persistence.Id;
import javax.persistence.Inheritance;
import javax.persistence.InheritanceType;

@Entity
@Inheritance(strategy =InheritanceType.JOINED )
public class Device {
        @Id
        int id;
        String brand;
        String model;
        double price;
        public int getId() {
                return id;
        }
        public void setId(int id) {
                this.id = id;
        }
        public String getBrand() {
```

```
		return brand;
	}
	public void setBrand(String brand) {
		this.brand = brand;
	}
	public String getModel() {
		return model;
	}
	public void setModel(String model) {
		this.model = model;
	}
	public double getPrice() {
		return price;
	}
	public void setPrice(double price) {
		this.price = price;
	}


}
package com.klef.jfsd.exam;

import javax.persistence.Entity;
import javax.persistence.PrimaryKeyJoinColumn;

@Entity
@PrimaryKeyJoinColumn(name = "id")
public class SmartPhone extends Device{
```

```
	String os;
	String camera;
	public String getOs() {
		return os;
	}
	public void setOs(String os) {
		this.os = os;
	}
	public String getCamera() {
		return camera;
	}
	public void setCamera(String camera) {
		this.camera = camera;
	}


}
package com.klef.jfsd.exam;

import javax.persistence.Entity;
import javax.persistence.PrimaryKeyJoinColumn;

@Entity
@PrimaryKeyJoinColumn(name="id")
public class Tablet extends Device{
	double screensize;
	String battery;
	public double getScreensize() {
```

```
        return screensize;
    }
    public void setScreensize(double screensize) {
        this.screensize = screensize;
    }
    public String getBattery() {
        return battery;
    }
    public void setBattery(String battery) {
        this.battery = battery;
    }

}
```