// Product.java

package com.caseStudy1;

import javax.persistence.Entity;

import javax.persistence.Id;

@Entity

public class Product {

@Id

private Integer Id,price;

private String name;

public Product() {

super();

// TODO Auto-generated constructor stub

}

public Product(int id, int price, String name) {

super();

Id = id;

this.price = price;

this.name = name;

}

public int getId() {

return Id;

}

public void setId(int id) {

Id = id;

}

public int getPrice() {

return price;

}

public void setPrice(int price) {

this.price = price;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

}

// hibernate.java

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE hibernate-configuration PUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

<property name="hibernate.dialect">org.hibernate.dialect.MySQL5Dialect</property>

<property name="hibernate.connection.driver\_class">com.mysql.cj.jdbc.Driver</property>

<property name="hibernate.connection.url">jdbc:mysql://localhost:3306/test</property>

<property name="hibernate.connection.username">root</property>

<property name="hibernate.connection.password">SaiSharma@2002</property>

<property name="hibernate.hbm2ddl.auto">create</property>

<property name="hibernate.show\_sql">true</property>

</session-factory>

</hibernate-configuration>

// MainApp.java

package com.caseStudy1;

import org.hibernate.SessionFactory;

import org.hibernate.cfg.Configuration;

public class MainApp {

public static void main(String[] args) {

System.out.println("Project Started...");

Configuration cfg = new Configuration();

cfg.configure("hibernate.cfg.xml");

SessionFactory factory = cfg.buildSessionFactory();

System.out.println(factory);

System.out.println(factory.isClosed());

}

}

Case Study 2

package com.caseStudy2;

import javax.persistence.Entity;

import javax.persistence.Column;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name="Bank")

public class Bank {

@Id

@Column(name="account\_id")

@GeneratedValue(strategy=GenerationType.IDENTITY)

private int id;

@Column(length=50,name="account\_name")

private String name;

@Column(length=50,name="account\_type")

private String type;

@Column(name="balance")

private float balance;

@Column(name="contact")

private long contact;

public Bank() {super();}

public Bank(int id, String name, String type, float balance, long contact) {

super();

this.id = id;

this.name = name;

this.type = type;

this.balance = balance;

this.contact = contact;

}

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 String getType() {

return type;

}

public void setType(String type) {

this.type = type;

}

public float getBalance() {

return balance;

}

public void setBalance(float balance) {

this.balance = balance;

}

public long getContact() {

return contact;

}

public void setContact(long contact) {

this.contact = contact;

}

}

// hibernate.cfg.xml

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE hibernate-configuration PUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

<property name="hibernate.dialect">org.hibernate.dialect.MySQL5Dialect</property>

<property name="hibernate.connection.driver\_class">com.mysql.cj.jdbc.Driver</property>

<property name="hibernate.connection.url">jdbc:mysql://localhost:3306/test</property>

<property name="hibernate.connection.username">root</property>

<property name="hibernate.connection.password">SaiSharma@2002</property>

<property name="hibernate.hbm2ddl.auto">create</property>

<property name="hibernate.show\_sql">true</property>

<mapping class="com.caseStudy2.Bank"></mapping>

</session-factory>

</hibernate-configuration>

// MainApp.java

package com.caseStudy2;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import org.hibernate.cfg.Configuration;

public class MainApp {

public static void main(String[] args) {

Configuration cfg = new Configuration();

cfg.configure("hibernate.cfg.xml");

SessionFactory factory = cfg.buildSessionFactory();

Session session = factory.openSession();

Transaction tx = session.beginTransaction();

// User1

Bank user1 = new Bank(1225,"Sai","Savings",20000,8888888888);

session.save(user1);

// User2

Bank user2 = new Bank();

user2.setId(1278);

user2.setName("Sharma");

user2.setType("Savings");

user2.setBalance(25000);

user2.setContact(999999999);

session.save(user2);

tx.commit();

session.close();

}

}

Case Study 3

// Products.java

package com.caseStudy3;

import javax.persistence.\*;

@Entity

@Table(name = "products")

public class Products {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

@Column(name = "name")

private String name;

@Column(name = "price")

private double price;

public Products() {

}

public Products(String name, double price) {

this.name = name;

this.price = price;

}

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 double getPrice() {

return price;

}

public void setPrice(double price) {

this.price = price;

}

}

// ProductDAO.java

package com.caseStudy3;

import java.util.List;

public interface ProductDAO {

public void addProduct(Products product);

public void updateProduct(Products product);

public void deleteProduct(int id);

public Products getProductById(int id);

public List<Products> getAllProducts();

}

// ProductDAOImplementation.java

package com.caseStudy3;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import org.hibernate.cfg.Configuration;

import java.util.List;

public class ProductDAOImplementation implements ProductDAO {

private SessionFactory sessionFactory;

public ProductDAOImplementation() {

sessionFactory = new Configuration().configure().buildSessionFactory();

}

public void addProduct(Products product) {

Session session = sessionFactory.openSession();

Transaction tx = session.beginTransaction();

session.save(product);

tx.commit();

session.close();

}

public void updateProduct(Products product) {

Session session = sessionFactory.openSession();

Transaction tx = session.beginTransaction();

session.update(product);

tx.commit();

session.close();

}

public void deleteProduct(int id) {

Session session = sessionFactory.openSession();

Transaction tx = session.beginTransaction();

Products product = (Products) session.get(Products.class, id);

session.delete(product);

tx.commit();

session.close();

}

public Products getProductById(int id) {

Session session = sessionFactory.openSession();

Products product = (Products) session.get(Products.class, id);

session.close();

return product;

}

public List<Products> getAllProducts() {

Session session = sessionFactory.openSession();

List<Products> products = session.createQuery("FROM Products").list();

session.close();

return products;

}

}

// hibernate.cfg.xml

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE hibernate-configuration PUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"http://www.hibernate.org/dtd/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/sys</property>

<property name="hibernate.connection.username">root</property>

<property name="hibernate.connection.password">SaiSharma@2002</property>

<property name="hibernate.dialect">org.hibernate.dialect.MySQL5Dialect</property>

<property name="hibernate.hbm2ddl.auto">create</property>

<property name="hibernate.show\_sql">true</property>

<property name="current\_session\_context\_class">thread</property>

<mapping class="com.caseStudy3.Products"></mapping>

</session-factory>

</hibernate-configuration>

// MainApp.java

package com.caseStudy3;

import java.util.List;

public class MainApp {

public static void main(String[] args) {

ProductDAO dao = new ProductDAOImplementation();

// Create a new product

Products product1 = new Products("iPhone", 30000);

dao.addProduct(product1);

Products product2 = new Products("samsung", 25000);

dao.addProduct(product2);

Products product3 = new Products("redmi", 20000);

dao.addProduct(product3);

Products product4 = new Products("realme", 15000);

dao.addProduct(product4);

// Retrieve the product by ID

Products retrievedProduct = dao.getProductById(product2.getId());

System.out.println("Retrieved product: " + retrievedProduct.getName() + " (" + retrievedProduct.getPrice() + ")");

// Update the product

product4.setPrice(18000);

dao.updateProduct(product4);

// Delete the product

dao.deleteProduct(product4.getId());

// Retrieve products

List<Products> products = dao.getAllProducts();

for (Products p : products) {

System.out.println("Product: " + p.getName() + " (" + p.getPrice() +")");

}

}

}