**Problem Statement 4:**

**Reading properties files in Spring with Property Placeholder Configurer bean**

**src/main/com**

**Battery.java**

package com;

public class Battery extends Product {

public Battery() {

}

public boolean isRechargeable() {

return rechargeable;

}

public void setRechargeable(boolean rechargeable) {

this.rechargeable = rechargeable;

}

}

**Disc.java**

package com;

public class Disc extends Product {

private String capacity;

public Disc() {

}

public String getCapacity() {

return capacity;

}

public void setCapacity(String capacity) {

this.capacity = capacity;

}

}

**Main.java**

package com;

import java.util.Iterator;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

public class Main {

public static void main(String[] args) {

ApplicationContext ctx = new ClassPathXmlApplicationContext("bean.xml");

ShoppingCart shcp=(ShoppingCart)ctx.getBean("sc");

Battery battery = (Battery) ctx.getBean("battery");

Disc disc = (Disc) ctx.getBean("disc");

shcp.addItem(battery);

shcp.addItem(disc);

System.out.println("Customer Details");

shcp.printCartContents();

}

}

**Product.java**

package com;

abstract class Product {

private int productId;

private String productName;

private double price;

private double discount;

public double getDiscount() {

return price -(price \* discount/100);

}

public void setDiscount(double discount) {

this.discount = discount;

}

*@Override*

public String toString() {

return "productId=" + productId + ", productName=" + productName + ", price=" + price + ", discount="

+ discount + "final price is= "+ getDiscount();

}

public int getProductId() {

return productId;

}

public void setProductId(int productId) {

this.productId = productId;

}

public String getProductName() {

return productName;

}

public void setProductName(String productName) {

this.productName = productName;

}

public double getPrice() {

return price;

}

public void setPrice(double price) {

this.price = price;

}

}

**ShoppingCart.java**

package com;

import java.util.List;

import java.util.ArrayList;

public class ShoppingCart {

private List<Product> items = new ArrayList<Product>();

public void addItem(Product item) {

items.add(item);

}

public void printCartContents() {

System.out.println("Cart contains:");

for (Product item : items) {

System.out.println("- " + item);

}

}

}

**bean.xml**

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

<**beans** xmlns=*"http://www.springframework.org/schema/beans"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xmlns:context=*"http://www.springframework.org/schema/context"*

xsi:schemaLocation=*"http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans/spring-beans.xsd*

*http://www.springframework.org/schema/context http://www.springframework.org/schema/context/spring-context.xsd"*> <!-- bean definitions here -->

<**context:property-placeholder** location=*"classpath:discounts.properties"*/>

<**bean** id=*"sc"* class=*"com.ShoppingCart"* scope=*"prototype"*/>

<**bean** id=*"battery"* class=*"com.Battery"*>

<**property** name=*"productId"* value=*"100"*></**property**>

<**property** name=*"productName"* value=*"Durocell"*></**property**>

<**property** name=*"price"* value=*"15000"*></**property**>

<**property** name=*"rechargeable"* value=*"true"*></**property**>

<**property** name=*"discount"* value=*"${summer.discount}"*></**property**>

</**bean**>

<**bean** id=*"disc"* class=*"com.Disc"*>

<**property** name=*"productId"* value=*"1000"*></**property**>

<**property** name=*"productName"* value=*"CD Disc"*></**property**>

<**property** name=*"price"* value=*"100"*></**property**>

<**property** name=*"capacity"* value=*"1500"*></**property**>

<**property** name=*"discount"* value=*"${endofyer.discount}"*></**property**>

</**bean**>

</**beans**>

**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>Spring\_Practicce\_Exercise2</groupId>

<artifactId>Spring\_Practicce\_Exercise2</artifactId>

<version>0.0.1-SNAPSHOT</version>

<build>

<sourceDirectory>src</sourceDirectory>

<plugins>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.13.0</version>

<configuration>

<release>21</release>

</configuration>

</plugin>

</plugins>

</build>

<!-- https://mvnrepository.com/artifact/org.springframework/spring-context -->

<dependencies>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>6.2.5</version>

</dependency>

</dependencies>

</project>