ProductTest:

**package** sefA1;

**import** java.io.IOException;

**import** java.util.Scanner;

**public** **class** ProductTest {

**public** **static** **void** main(String[] args) **throws** IOException {

Scanner sc = **new** Scanner(System.***in***);

checkout checkout = **new** checkout();

manager manager = **new** manager();

salesEmployee salesEmp = **new** salesEmployee();

**while** (**true**) {

System.***out***.println(" Welcome to our store");

System.***out***.println("Enter your role (1.Customer 2.Manager 3.Sales employee 4.Quit)");

**int** choice = sc.nextInt();

**switch** (choice) {

**case** 1:

// customer

checkout.shop();

**break**;

**case** 2:

// manager

manager.manager();

**break**;

**case** 3:

// salesEmployee

salesEmp.salesEmploye();

**break**;

**case** 4:

System.*exit*(0);

**default**:

System.***out***.println("Wrong role");

}

}

}

}

Checkout:

package sefA1;

import java.io.BufferedReader;

import java.io.FileReader;

import java.io.IOException;

import java.util.ArrayList;

import java.util.Scanner;

public class checkout {

public void shop() throws IOException {

Scanner sc = new Scanner(System.in);

ArrayList<Product> list = new ArrayList<Product>();

check(list);

while (true) {

System.out.println(" Welcome to our store");

System.out.println("Select function: (1.View stock list 2.Check Price 3.Buy item 4.Checkout 5.Quit))");

int choice = sc.nextInt();

switch (choice) {

case 1:

// checklist

print(list);

break;

case 2:

// Check Price

price(list);

break;

case 3:

// buy

buy(list);

break;

case 4:

// checkout

checkOut(list);

break;

case 5:

// quit

return;

default:

System.out.println("Wrong function");

}

}

}

private void checkPrice(ArrayList<Product> list) throws IOException {

BufferedReader br = new BufferedReader(new FileReader("/Users/shuhaoshi/Desktop/Product.txt"));

String line;

while ((line = br.readLine()) != null) {

String[] str = line.split(" ");

Product f = new Product(str[0], str[1], Integer.parseInt(str[2]), "");

list.add(f);

}

br.close();

}

public void price(ArrayList<Product> list) {

System.out.println("ID\tName\tPrice");

for (int i = 0; i < list.size(); i++) {

Product f = list.get(i);

System.out.println(f.getId() + "\t" + f.getName() + "\t" + f.getPrice() + "\t" + f.getUnit());

}

}

// Checkout

private void checkOut(ArrayList<Product> list) {

int sum = 0;

for (int i = 0; i < list.size(); i++) {

Product f = list.get(i);

sum += f.getMoney();

}

if (sum > 200) {

int newSum = (int) (sum \* 0.9);

System.out.println("Price:" + sum + ", Discounted Price: " + newSum + "");

} else {

System.out.println("Price: " + sum + "");

}

// After checkout quantity set to 0

for (int i = 0; i < list.size(); i++) {

Product f = list.get(i);

f.setNumber(0);

}

}

// Buy item

public void buy(ArrayList<Product> list) throws IOException {

Scanner sc1 = new Scanner(System.in);

Scanner sc2 = new Scanner(System.in);

print(list);

while (true) {

// System.out.println("10% discount if shop over 200!");

System.out.println("Enter item ID(If finished buying，Enter -1 to quit)");

// id();

String id = sc1.nextLine();

if ("-1".equals(id)) {

System.out.println("Go to checkout ");

return;

} else {

boolean flag = false;

for (int i = 0; i < list.size(); i++) {

Product f = list.get(i);

if (f.getId().equals(id)) {

System.out.println(f.getId() + "\t" + f.getName() + "\t" + f.getPrice() + "\t" + f.getUnit());

int num = sc2.nextInt();

f.setNumber(num);

flag = true;

}

}

if (!flag) {

System.out.println("ID incorrect, re-enter");

}

}

}

}

// public String id() {

// Scanner sc1 = new Scanner(System.in);

// String id = sc1.nextLine();

// return id;

// }

// Checkitem

public void check(ArrayList<Product> list) throws IOException {

BufferedReader br = new BufferedReader(new FileReader("/Users/shuhaoshi/Desktop/Product.txt"));

String line;

while ((line = br.readLine()) != null) {

String[] str = line.split(" ");

Product f = new Product(str[0], str[1], Integer.parseInt(str[2]), "");

list.add(f);

}

br.close();

}

public void print(ArrayList<Product> list) {

System.out.println("ID\tName");

for (int i = 0; i < list.size(); i++) {

Product f = list.get(i);

System.out.println(f.getId() + "\t" + f.getName() + "\t" + f.getUnit());

}

}

}

salesEmployee:

**package** sefA1;

**import** java.io.BufferedReader;

**import** java.io.FileReader;

**import** java.io.IOException;

**import** java.util.ArrayList;

**import** java.util.Scanner;

**public** **class** salesEmployee {

**public** **void** salesEmploye() **throws** IOException {

Scanner sc = **new** Scanner(System.***in***);

ArrayList<Product> list = **new** ArrayList<Product>();

check(list);

**while** (**true**) {

System.***out***.println(" Welcome to our store");

System.***out***.println("Select function: (1.View stock list 2.Remove item 3.Cancel transaction 4.Quit))");

**int** choice = sc.nextInt();

**switch** (choice) {

**case** 1:

// checklist

print(list);

**case** 3:

// Cancel transaction

cancel(list);

**case** 4:

// quit

**return**;

**default**:

System.***out***.println("Wrong function");

}

}

}

**private** **void** cancel(ArrayList<Product> list) {

**int** sum = 0;

**for** (**int** i = 1; i < list.size(); i++) {

Product f = list.get(i);

sum += f.getMoney();

System.***out***.println("Price: " + sum+"");

System.***out***.println("Shopping cart has been cleared");

}

//After checkout quantity set to 0

**for** (**int** i = 0; i < list.size(); i++) {

Product f = list.get(i);

f.setNumber(0);

}

}

**public** **void** check(ArrayList<Product> list) **throws** IOException {

BufferedReader br = **new** BufferedReader(**new** FileReader("/Users/shuhaoshi/Desktop/Product.txt"));

String line;

**while** ((line = br.readLine()) != **null**) {

String[] str = line.split(" ");

Product f = **new** Product(str[0], str[1], Integer.*parseInt*(str[2]), "");

list.add(f);

}

br.close();

}

**public** **void** print(ArrayList<Product> list) {

System.***out***.println("ID\tName\tPrice");

**for** (**int** i = 0; i < list.size(); i++) {

Product f = list.get(i);

System.***out***.println(f.getId() + "\t" + f.getName() + "\t"

+ f.getPrice() + "\t" + f.getUnit());

}

}

}