**public** **class** Product{

**private** String id;

**private** String pname;

**private** **int** qty;

**private** **double** price;

**private** **double** totalPrice;

// constructor

Product(String id, String pname, **int** qty, **double** price, **double** totalPrice) {

**this**.id = id;

**this**.pname = pname;

**this**.qty = qty;

**this**.price = price;

**this**.totalPrice = totalPrice;

}

// getter methods

**public** String getId() {

**return** id;

}

**public** String getPname() {

**return** pname;

}

**public** **int** getQty() {

**return** qty;

}

**public** **double** getPrice() {

**return** price;

}

**public** **double** getTotalPrice() {

**return** totalPrice;

}

// displayFormat

**public** **static** **void** displayFormat() {

System.***out***.format(

"-----------------------------------------------------------------------------------------------------------------------------------");

System.***out***.print("\nProduct ID \t\tName\t\tQuantity\t\tRate \t\t\t\tTotal Price\n");

System.***out***.format(

"-----------------------------------------------------------------------------------------------------------------------------------\n");

}

// display

**public** **void** display() {

System.***out***.format(" %-9s %-9s %5d %9.2f %14.2f\n", id,

pname, qty, price, totalPrice);

}

}

**import** java.util.ArrayList;

**import** java.util.List;

**import** java.util.Scanner;

**import** java.text.SimpleDateFormat;

**import** java.util.Date;

**import** java.util.Calendar;

**public** **class** GopalShoppingBill {

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

// variables

String id = **null**;

String productName = **null**;

**int** quantity = 0;

**double** price = 0.0;

**double** totalPrice = 0.0;

**double** overAllPrice = 0.0;

**double** cgst, sgst, subtotal = 0.0, discount = 0.0;

**char** choice = '\0';

System.***out***.println("\t\t\t\t--------------------Invoice-----------------");

System.***out***.println("\t\t\t\t\t " + " " + "Metro Mart Gopal Shop");

System.***out***.println("\t\t\t\t\t3/98 Mecrobertganj New Mumbai");

System.***out***.println("\t\t\t\t\t" + " " + "Opposite Metro Walk");

System.***out***.println("GSTIN: 03AWBPP8756K592" + "\t\t\t\t\t\t\tContact: (+91) 7709373709");

// format of date and time

SimpleDateFormat formatter = **new** SimpleDateFormat("dd/MM/yyyy HH:mm:ss");

Date date = **new** Date();

Calendar calendar = Calendar.*getInstance*();

String[] days = **new** String[] { "Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday" };

// prints current date and time

System.***out***.println("Date: " + formatter.format(date) + " " + days[calendar.get(Calendar.***DAY\_OF\_WEEK***) - 1]

+ "\t\t\t\t\t\t (+91) 8007317529");

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

System.***out***.print("Enter Customer Name: ");

String customername = scan.nextLine();

// create Scanner class object

// creating an ArrayList to store the product

List<Product> product = **new** ArrayList<Product>();

**do** {

// read input values System.***out***.println("Enter the product details: ");

System.***out***.print("Product ID: ");

id = scan.nextLine();

System.***out***.print("Product Name: ");

productName = scan.nextLine();

System.***out***.print("Quantity: ");

quantity = scan.nextInt();

System.***out***.print("Price (per unit): ");

price = scan.nextDouble();

// calculate total price for a particular product

totalPrice = price \* quantity;

// calculates overall price

overAllPrice = overAllPrice + totalPrice;

// creates Product class object and add it to the List

product.add(**new** Product(id, productName, quantity, price, totalPrice));

// ask for continue shopping?

System.***out***.print("Want to add more items? (y or n): ");

// reads a character Y or N

choice = scan.next().charAt(0);

// read remaining characters, don't store (no use)

scan.nextLine();

} **while** (choice == 'y' || choice == 'Y');

// display all product with its properties

Product.*displayFormat*();

**for** (Product p : product) {

p.display();

}

// price calculation

System.***out***.println("\n\t\t\t\t\t\t\t\t\t\tTotal Amount (Rs.) " + overAllPrice);

// calculating discount

discount = overAllPrice \* 2 / 100;

System.***out***.println("\n\t\t\t\t\t\t\t\t\t\t Discount (Rs.) " + discount);

// total amount after discount

subtotal = overAllPrice - discount;

System.***out***.println("\n\t\t\t\t\t\t\t\t\t\t Subtotal " + subtotal);

// calculating tax

sgst = overAllPrice \* 12 / 100;

System.***out***.println("\n\t\t\t\t\t\t\t\t\t\t SGST (%) " + sgst);

cgst = overAllPrice \* 12 / 100;

System.***out***.println("\n\t\t\t\t\t\t\t\t\t\t CGST (%) " + cgst);

// calculating amount to be paid by buyer

System.***out***.println("\n\t\t\t\t\t\t\t\t\t\t Invoice Total " + (subtotal + cgst + sgst));

System.***out***.println("\t\t\t\t----------------Thank You for Shopping!!-----------------");

System.***out***.println("\t\t\t\t Visit Again");

// close Scanner

scan.close();

}

}