

Question1:

```
1 package product;
2
3
4 public class Product {
5     private final int RATE = 10; // assuming a default discount rate of 10%
6     private int ID;
7     private String Name;
8     private double Price;
9     private int year;
10    private int count;
11
12    // Constructors
13    public Product(int id, String name, double price) {
14        this.ID = id;
15        this.Name = name;
16        this.Price = price;
17        this.year = 2023;
18        this.count = 100;
19    }
20
21    public Product(int id, String name, double price, int year, int count) {
22        this.ID = id;
23        this.Name = name;
24        this.Price = price;
25        this.year = year;
26        this.count = count;
27    }
28
29    // Setters
30    public void setID(int id) {
31        ID = id;
32    }
33
34    public void setName(String name) {
35        Name = name;
36    }
37
38    public void setPrice(double price) {
39        Price = price;
40    }
41}
```

SourceHistory

```
42 public void setyear(int year) {  
43     year = year;  
44 }  
45  
46 public void setcount(int count) {  
47     count = count;  
48 }  
49  
50 // Getters  
51 public int getID() {  
52     return ID;  
53 }  
54  
55 public String getName() {  
56     return Name;  
57 }  
58  
59 public double getPrice() {  
60     return Price;  
61 }  
62  
63 public int getyear() {  
64     return year;  
65 }
```

product Product > setPrice >

```
public String toString() {  
    return ID + ", " + Name + ", " + computeSellingPrice();  
}  
  
// Methods  
public double computeSellingPrice() {  
    return Price - computeDiscount();  
}  
  
public void sell(int sold_number) {  
    count -= sold_number;  
}  
  
private double computeDiscount() {  
    return Price * RATE / 100.0;  
}
```

```
2  * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
4  */
5  package producttester;
6
7
8  public class ProductTester {
9
10     public static void main(String[] args) {
11         Product p1 = new Product(9, "Fatima", 8000);
12         Product p2 = new Product(6, "Phone", 223, 2024, 90);
13
14
15         System.out.println("Product 1 " + p1);
16         System.out.println("Product 2 " + p2);
17
18         p1.sell(10);
19         p2.sell(20);
20
21         System.out.println("Product 1 after selling: " + p1);
22         System.out.println("Product 2 after selling: " + p2);
23     }
24 }
25
```