

An online retailer sells five products whose retail prices are as follows: Product 1, \$2.98; product 2, \$4.50; product 3, \$9.98; product 4, \$4.49 and product 5, \$6.87. Write an application that reads a series of pairs of numbers as follows:

a) product number

b) quantity sold

Your program should use a switch statement to determine the retail price for each product. It should calculate and display the total retail value of all products sold. Use a sentinel-controlled loop to determine when the program should stop looping and display the final results.

Answer:

```
import java.util.Scanner;

public class Main {

    /**
     * @param args
     */
    public static void main(String[] args) {
        //Scanner for keyBoard
        Scanner keyBoard =new Scanner(System.in);
        //total Retail
        double totalRetail=0;
        // Use a sentinel-controlled loop to determine when the
        //program should stop looping and display the final results.
        while(true){
            //display menu
            System.out.println("1 - Product 1, $2.98");
            System.out.println("2 - Product 2, $4.50");
            System.out.println("3 - Product 3, $9.98");
            System.out.println("4 - Product 4, $4.49");
            System.out.println("5 - Product 5, $6.87");
            System.out.println("6 - Exit program");
            System.out.print("Enter product number: ");
            int productnumber=keyBoard.nextInt();
            //exit program
            if(productnumber==6){
                break;
            }
        }
    }
}
```

```
}

///Enter quantity sold
System.out.print("Enter quantity sold: ");
int quantitySold=keyBoard.nextInt();
//use a switch statement to determine the retail price
//for each product.
switch(productnumber){

    case 1:
        totalRetail+=2.98*quantitySold;
        break;

    case 2:
        totalRetail+=4.50*quantitySold;
        break;

    case 3:
        totalRetail+=9.98*quantitySold;
        break;

    case 4:
        totalRetail+=4.49*quantitySold;
        break;

    case 5:
        totalRetail+=6.87*quantitySold;
        break;

}

//display result
System.out.println("\nThe total retail value of all products sold: $" +totalRetail);

}

}
```

Final results:

```
1 - Product 1, $2.98
2 - Product 2, $4.50
3 - Product 3, $9.98
4 - Product 4, $4.49
5 - Product 5, $6.87
6 - Exit program
Enter product number: 1
Enter quantity sold: 2

The total retail value of all products sold: $5.96
1 - Product 1, $2.98
2 - Product 2, $4.50
3 - Product 3, $9.98
4 - Product 4, $4.49
5 - Product 5, $6.87
6 - Exit program
Enter product number: 3
Enter quantity sold: 4

The total retail value of all products sold: $45.88
1 - Product 1, $2.98
2 - Product 2, $4.50
3 - Product 3, $9.98
4 - Product 4, $4.49
5 - Product 5, $6.87
6 - Exit program
Enter product number: 5
Enter quantity sold: 6
```