

```

1 class Product {
2     private int id;
3     private String name;
4     private double price;
5
6     public Product(int id, String name, double price) {
7         this.id = id;
8         this.name = name;
9         this.price = price;
10    }
11
12    public void displayDetails() {
13        System.out.println("Product Details:");
14        System.out.println("ID: " + id);
15        System.out.println("Name: " + name);
16        System.out.println("Price: " + price);
17    }
18    public static void main(String[] args) {
19        Product product = new Product(101, "Laptop", 75000);
20        product.displayDetails();
21    }
22 }
23

```



input

Product Details:

ID: 101

Name: Laptop

Price: 75000.0

```
1- class Book {
2-     protected String title;
3-     protected String author;
4-     protected double price;
5-
6-     public Book(String title, String author, double price) {
7-         this.title = title;
8-         this.author = author;
9-         this.price = price;
10-    }
11-
12-    public void displayDetails() {
13-        System.out.println("Title: " + title);
14-        System.out.println("Author: " + author);
15-        System.out.println("Price: " + price);
16-    }
17- }
18-
19- class Fiction extends Book {
20-     public Fiction(String title, String author, double price) {
21-         super(title, author, price);
22-     }
23-
24-     @Override
25-     public void displayDetails() {
26-         System.out.println("Fiction Book Details:");
27-         super.displayDetails();
28-     }
29- }
30- class NonFiction extends Book {
31-     public NonFiction(String title, String author, double price) {
32-         super(title, author, price);
33-     }
34- }
```

```
@Override
public void displayDetails() {
    System.out.println("Non-Fiction Book Details:");
    super.displayDetails();
}

}

public class LibraryManagement {
    public static void main(String[] args) {
        Fiction fictionBook = new Fiction("Harry Potter", "J.K. Rowling", 500);
        NonFiction nonFictionBook = new NonFiction("Sapiens", "Yuval Noah Harari", 700);
        fictionBook.displayDetails();
        System.out.println();
        nonFictionBook.displayDetails();
    }
}
```

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}



Fiction Book Details:

Title: Harry Potter

Author: J.K. Rowling

Price: 500.0

Non-Fiction Book Details:

Title: Sapiens

Author: Yuval Noah Harari

Price: 700.0

```
import java.util.Scanner;

abstract class Person {
    protected String name;
    protected int age;

    public Person(String name, int age) {
        this.name = name;
        this.age = age;
    }

    public abstract void displayDetails();
}

class Student extends Person {
    private int rollNumber;

    public Student(String name, int age, int rollNumber) {
        super(name, age);
        this.rollNumber = rollNumber;
    }

    @Override
    public void displayDetails() {
        System.out.println("Student Details:");
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        System.out.println("Roll Number: " + rollNumber);
    }
}
```

```
class Teacher extends Person {
    private String subject;

    public Teacher(String name, int age, String subject) {
        super(name, age);
        this.subject = subject;
    }

    @Override
    public void displayDetails() {
        System.out.println("Teacher Details:");
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        System.out.println("Subject: " + subject);
    }
}

public class StudentInfoSystem {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.println("Add Student:");
        System.out.print("Name: ");
        String studentName = scanner.nextLine();
        System.out.print("Age: ");
        int studentAge = scanner.nextInt();
        System.out.print("Roll Number: ");
        int rollNumber = scanner.nextInt();
        scanner.nextLine();

        Student student = new Student(studentName, studentAge, rollNumber);
    }
}
```



```
Student student = new Student(studentName, studentAge, rollNumber);
```

```
System.out.println("\nAdd Teacher:");
```

```
System.out.print("Name: ");
```

```
String teacherName = scanner.nextLine();
```

```
System.out.print("Age: ");
```

```
int teacherAge = scanner.nextInt();
```

```
scanner.nextLine();
```

```
System.out.print("Subject: ");
```

```
String subject = scanner.nextLine();
```

```
Teacher teacher = new Teacher(teacherName, teacherAge, subject);
```

```
System.out.println();
```

```
student.displayDetails();
```

```
System.out.println();
```

```
teacher.displayDetails();
```

```
scanner.close();
```

```
}
```

```
}
```

Add Student:

Name: vanshaj

Age: 12

Roll Number: 12

Add Teacher:

Name: kuch bhi

Age: 09

Subject: pta nii

Student Details:

Name: vanshaj

Age: 12

Roll Number: 12

Teacher Details:

Name: kuch bhi

Age: 9

Subject: pta nii