

## Problem 2: Library Management System (Medium Level)

### Description:

Write a Java program to implement a **library management system** using:

- A **base class** `Book`
- **Derived classes** `Fiction` and `Non-Fiction`

### Code:

```
class Book {
    protected String title;
    protected String author;
    protected double price;

    public Book(String title, String author, double price) {
        this.title = title;
        this.author = author;
        this.price = price;
    }

    public void displayDetails() {
        System.out.println("Title: " + title);
        System.out.println("Author: " + author);
        System.out.println("Price: " + price);
    }
}

class Fiction extends Book {
    public Fiction(String title, String author, double price) {
        super(title, author, price);
    }

    public void displayDetails() {
        System.out.println("Fiction Book Details:");
        super.displayDetails();
    }
}

class NonFiction extends Book {
    public NonFiction(String title, String author, double price) {
        super(title, author, price);
    }

    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();
    }
}
```

## Output:

```
"C:\Program Files\Java\jdk-22\bin\ja
```

```
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
```

```
Process finished with exit code 0
```