

Assignment No:2

Name:Sumit Sanjivkumar Kalshetty

SE- A1

RollNo:2125

Problem Statement :

Aim: Identify commonalities and differences between Publication, Book and Magazine classes. Title, Price, Copies are common instance variables and saleCopy is common method. The differences are, Book class has author and orderCopies(). Magazine Class has orderQty, Currentissue, receiveissue(). Write a program to find how many copies of the given books are ordered and display total sale of publication.

Program:

```
import java.util.*;

class Publication
{
    String title;
    int price;
    int copies;
    int total;

    Scanner sc=new Scanner(System.in);

    public String gettitle()
    {
        return title;
    }
}
```

```
public int getCopies() {
```

```
    return copies;
```

```
}
```

```
public double getprice() {
```

```
    return price;
```

```
}
```

```
public void setttitle(String title) {
```

```
    this.title=title;
```

```
}
```

```
    public void setcopies(int copies) {
```

```
        this.copies=copies;
```

```
    }
```

```
public void setprice(int price)
```

```
{
```

```
    this.price=price;
```

```
}
```

```
void read_publ()
```

```
{
```

```
    System.out.print("enter title : ");
```

```
    Scanner sc=new Scanner(System.in);
```

```
    title=sc.next();
```

```
    System.out.print("enter price: ");
```

```
price=sc.nextInt();  
System.out.print("enter copies: ");  
copies=sc.nextInt();  
}
```

```
void display() {  
  
System.out.print(title+"\t"+price+"\t"+copies);  
}
```

```
void sale_copy(int number) {  
  
if (number<= copies)  
  
{  
  
total=number*price;  
System.out.println("\tYOU PURCHASED "+number+" COPIES \n\tYOU HAVE TO PAY :  
"+(price*number));  
}  
else  
System.out.println("  INSUFFICIENT STOCK!!!!!!!!!!");  
}  
  
}
```

```
class Book extends Publication
```

```

{
    String author;
    void order_copies(int number)
    {
        int x=getCopies()+number;
        setcopies(x);
        System.out.println("\n\tORDER SUCESSFUL....");
        System.out.println("\tCOPIES AVAILABLE : "+x);
    }
}

```

```

void read_book()
{
    read_publ();
    System.out.print("enter author book: ");
    author=sc.next();
}

```

```

void display_book(){
    System.out.println("title \tprice \tcopy \tauthor");
    display();
    System.out.println("\t"+author);
}
}

```

```

class Magazine extends Publication
{

```

```

    int ord_qty;
    String issue_date;

```

```

void receive_issue(String new_issue_date) {

    System.out.println("ENTER NEW COPIES ORDERED: ");
    ord_qty=sc.nextInt();

    setcopies(ord_qty);

    issue_date=new_issue_date;

    System.out.println("\tTHE MAGAZINE "+gettitle()+" \n\t WITH ISSUE DATE
    "+issue_date+"AVAILABLE");
}

void read_mag()
{
    read_publ();
    System.out.print("Enter THe Current Issue Date [dd/mm/yyyy]");
    issue_date=sc.next();
}

void display_mag() {
    System.out.println("title \tprice \tcopy \tdate");
    display();
    System.out.println("\t"+issue_date);
}
}

public class DemoPublication
{

```

```

public static void main(String args[])
{
    Publication p1= new Publication();
    Book b1= new Book();
    Magazine m1= new Magazine();
    p1.read_publ();
    p1.display();

    b1.read_book();
    b1.display_book();
    m1.read_mag();
    m1.display_mag();
}
}

```

Output:

Enter title: Java

Enter price:

1200

Enter copies:

13

Enter author of the book: xyz

Title	Price	Copies	Author
Java	1200.0	13	xyz

ORDER SUCCESSFUL....

COPIES AVAILABLE: 17

Title	Price	Copies	Author
Java	1200.0	13	xyz

Java 1200.0 17 xyz

YOU PURCHASED 3 COPIES

YOU HAVE TO PAY: 3600.0

Title	Price	Copies	Author
-------	-------	--------	--------

Java	1200.0	14	xyz
------	--------	----	-----

Enter title: C++

Enter price:

1400

Enter copies:

7

Enter the current issue date [dd/mm/yyyy]: 02/08/2024

Title	Price	Copies	Date
-------	-------	--------	------

Java	1400.0	7	02/08/2024
------	--------	---	------------