OBJECT ORIENTED PROGRAMMING LAB

Experiment No.: 12

Aim

Write a program has class Publisher, Book, Literature and
Fiction. Read the information and print the details of books
from either the category, using inheritance.

Name : vismayamohan

Roll No:54

Batch: B

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Procedure

```java
import java.util.Scanner;
class Publisher{
        int pid;
        String pname;
        Publisher(int pid, String pname){
                this.pid = pid;
                this.pname = pname;
        }
}

class Book extends Publisher{
        int bid;
        String bname;
        Book(int pid, String pname, int bid, String bname){
                super(pid, pname);
                this.bid = bid;
                this.bname = bname;
        }
}

class Literature extends Book{
        int lid;
        String lname;
        Literature(int pid, String pname, int bid, String bname, int lid, String
lname){
                super(pid, pname, bid, bname);
                this.lid = lid;
                this.lname = lname;
        }
        void display(){
                System.out.println("Enter the Publisher ID : "+this.pid);
                System.out.println("Enter the Publisher NAME : "+this.pname);
                System.out.println("Enter the Book ID : "+this.bid);
                System.out.println("Enter the Book NAME : "+this.bname);
                System.out.println("Enter the Literature ID : "+this.lid);
                System.out.println("Enter the Literature NAME : "+this.lname);
```

```java
        }
}

class Fiction extends Book{
        int fid;
        String fname;
        Fiction(int pid, String pname, int bid, String bname, int fid, String
fname){
                super(pid, pname, bid, bname);
                this.fid = fid;
                this.fname = fname;
        }
      void display(){
            System.out.println("Publisher ID : "+this.pid);
            System.out.println("Publisher NAME : "+this.pname);
            System.out.println("Book ID : "+this.bid);
            System.out.println("Book NAME : "+this.bname);
            System.out.println("Fiction ID : "+this.fid);
            System.out.println("Fiction NAME : "+this.fname);
        }
}

public class BookDetails{
      public static void main(String args[]){
            Scanner sc = new Scanner(System.in);
            int n, i, type;
            int pid, bid, lid, fid;
            String pname, bname, lname, fname;
            System.out.println("Enter the limit : ");
            n = sc.nextInt();
            Literature[] lit = new Literature[n];
            Fiction[] fit = new Fiction[n];
            for(i=0; i<n; i++){
                  System.out.println("Enter the Publisher ID : ");
                  pid = sc.nextInt();
                  System.out.println("Enter the Publisher Name : ");
                  pname = sc.next();
                  System.out.println("Enter the Book ID : ");
                  bid = sc.nextInt();
                  System.out.println("Enter the Book Name : ");
                  bname = sc.next();
                  System.out.println("BOOK TYPE? 1. Literature 2. Fiction :
");
                  type = sc.nextInt();
                  if(type == 1){
                        System.out.println("Enter the Literature ID : ");
                        lid = sc.nextInt();
                        System.out.println("Enter the Literature Name : ");
                        lname = sc.next();
                        lit[i] = new Literature(pid, pname, bid, bname,
lid, lname);

                  }
                  else{
                        System.out.println("Enter the Fiction ID : ");
                        fid = sc.nextInt();
                        System.out.println("Enter the Fiction Name : ");
                        fname = sc.next();
                        fit[i] = new Fiction(pid, pname, bid, bname, fid,
fname);
                  }
            }
            if(lit.length > 0){
```
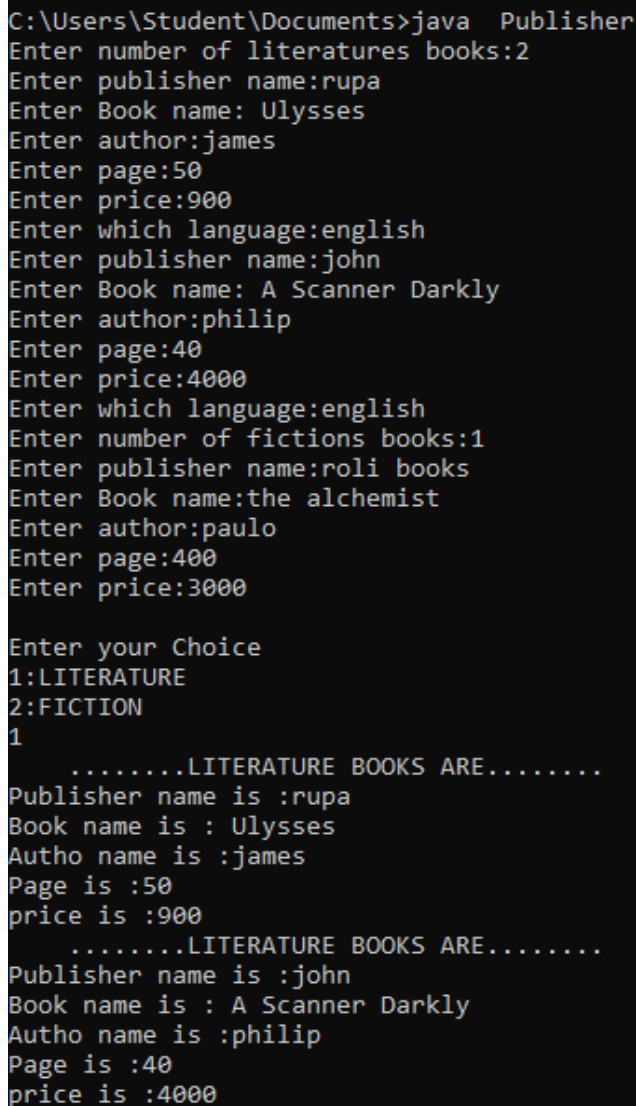
```
                    for(i=0; i<lit.length; i++){
                            lit[i].display();
                    }
            }
            if(fit.length > 0){
                    for(i=0; i<fit.length; i++){
                            fit[i].display();
                    }
            }
        }
    }
}
```

Output screenshot

```
C:\Users\Student\Documents>java  Publisher
Enter number of literatures books:2
Enter publisher name:rupa
Enter Book name: Ulysses
Enter author:james
Enter page:50
Enter price:900
Enter which language:english
Enter publisher name:john
Enter Book name: A Scanner Darkly
Enter author:philip
Enter page:40
Enter price:4000
Enter which language:english
Enter number of fictions books:1
Enter publisher name:roli books
Enter Book name:the alchemist
Enter author:paulo
Enter page:400
Enter price:3000

Enter your Choice
1:LITERATURE
2:FICTION
1
    ........LITERATURE BOOKS ARE........
Publisher name is :rupa
Book name is : Ulysses
Autho name is :james
Page is :50
price is :900
    ........LITERATURE BOOKS ARE........
Publisher name is :john
Book name is : A Scanner Darkly
Autho name is :philip
Page is :40
price is :4000
```