Lab Test program :-   Publication question (Book / audio cassette) :-

I

```java
import java.util.Scanner;

class publication
{

    String title;
    Double price;


}

class Book extends publications
{

    int page_count;
    Scanner ss = new Scanner (System.in);


    void getdata()
    {
        System.out.println ("Enter the book details : ");
        System.out.println ("Title : ");
        title = ss.next ();
        System.out.println (" Price : ");
        price = ss.nextDouble ();
        System.out.println (" Page count : ");
        page_count = ss.nextInt ();
    }

    void putdata()
    {
        System.out.println (" The book details are : ");
        System.out.println ("Title : "+ title);
        System.out.println (" Price : "+ price);
        System.out.println (" Page count : "+ page_count);
    }

}
```

```java
    int getpagecount ()
    {
        return page-count ;
    }
}


class tape extends publication
{
            playing-time
    int     play-time;

    Scanner ss = new Scanner (System.in);

    void getdata()
    {
        System.out. println ("Enter the cassette details : ");
        System.out. println ("Title : ");
        title = ss. next ();
        System. out. println (" Price : ");
        price = ss.nextDouble ();
        System. out. println (" Play time in minutes : ");
        playing-time
        play-time = ss.nextInt ();

    }
            putdata
    void    getdata()
    {
        System.out. println ("The cassette details are : ");
        System. out. println (" Title : " + title);
        System. out. println (" Price : " + price);
        System. out. println (" Play time in minutes : " + playing-time
                                                            play-time);
    }
}
```

);

);

```
int  get play time ()
{
        return  playing-time;
}

void  get title ()
   { System.out. println ("Title : " + title ); }
}
class  publications main {

    public static void main (Strings args[])
    {
        int i, m, n, count = 0;
        int playing-time;
        Scanner ss = new Scanner (System.in);

        System.out. println ("Enter the number of books : ");
        m = ss. next Int ();
        System.out. println (" Enter the number of Cassettes : ");
        n = ss. next Int ();

        book   b[] = new book [m];

        tape  t[] = new tape [n];

        for (int i = 0; i < m; i++)
        {
            book b[i] = new book();
            b[i]. get data();
        }

        for (int i = 0; i < n; i++)
        {
            tape t[i] = new tape ();
            t[i]. get data();
        }
```

```
System.out.println (" The books     with the number of pages
                        - greater than   500 ");

for (int i = 0; i < m; i++)
{
    if ( b[i]. getpagecount () > 500)
    {
        b[i]. putdata();
        count ++;
    }
}
System.out.println(" The no. of books with pages greater than 500 ":+
                                                        count);
System.out.println ("Enter the playing time : ");
playing-time = ss.nextInt();

System.out.println ("The cassette with playing time lesser-
                        - than " + playing-time + " minutes is : ");

for (int i = 0; i < n; i++)
{
    if (t[i]. getplaytime < playing-time)
    {
                gettitle
        t[i]. putdata();
    }
}
}
}
```

(4)

```java
import java.util.Scanner;

class publication
{
    String title;
    Double price;
}

class book extends publication
{
    int page_count;
    Scanner ss=new Scanner(System.in);

    void getdata()
    {
        System.out.println("Enter the book details: ");
        System.out.println("Title: ");
        title=ss.next();
        System.out.println("Price: ");
        price=ss.nextDouble();
        System.out.println("Page Count: ");
        page_count=ss.nextInt();
    }

    void putdata()
    {
        System.out.println("The book Details are: ");
        System.out.println("Title: "+title);
        System.out.println("Price: "+price);
        System.out.println("Page Count: "+page_count);
    }

    int getpagecount()
    {
        return page_count;
    }
}
```

```java
//Object passing as parameter to a method (for viva)
book getdetails(book b1)
{
    System.out.println("\nThis is inside the method returning object of class book");
    b1.title="BreakTime";
    b1.price=500.0;
    b1.page_count=330;
    return b1;
}
}


class tape extends publication
{
    int playing_time;

    Scanner ss=new Scanner(System.in);

    void getdata()
    {
        System.out.println("Enter the Cassette details: ");
        System.out.println("Title: ");
        title=ss.next();
        System.out.println("Price: ");
        price=ss.nextDouble();
        System.out.println("Playing time in minutes: ");
        playing_time=ss.nextInt();
    }

    void putdata()
    {
        System.out.println("The Cassette Details are: ");
        System.out.println("Title: "+title);
        System.out.println("Price: "+price);
        System.out.println("Playing time in minutes: "+playing_time);
    }

    int getplaytime()
    {
        return playing_time;
    }
}
```

```java
    void gettitle()
    {
        System.out.println("Title: "+title);
    }

}

class publicationsmain
{
    Run | Debug
    public static void main(String args[])
    {
        int i,m,n,count=0;
        int playing_time;
        Scanner ss=new Scanner(System.in);

        System.out.println("Enter the number of books: ");
        m=ss.nextInt();
        System.out.println("Enter the number of Cassettes: ");
        n=ss.nextInt();
        book b[]=new book[m];
        tape t[]=new tape[n];

        for(i=0;i<m;i++)
        {
            b[i]=new book();
            b[i].getdata();
        }

        for(i=0;i<n;i++)
        {
            t[i]=new tape();
            t[i].getdata();
        }
```

```java
        for(i=0;i<n;i++)
        {
            t[i]=new tape();
            t[i].getdata();
        }

        System.out.println("The books with the number of pages greater than 500 :");
        for(i=0;i<m;i++)
        {
            if(b[i].getpagecount()>500)
            {
                b[i].putdata();
                count++;
            }
        }

        System.out.println("The no. of books with pages greater than 500: "+count);

        System.out.println("Enter the playing time: ");
        playing_time=ss.nextInt();

        System.out.println("The Cassettes with Playing time lesser than "+playing_time+" minutes is: ");
        for(i=0;i<n;i++)
        {
            if(t[i].getplaytime()<playing_time)
            {
                t[i].gettitle();
            }
        }

        book b2=new book();
        book b3=new book();

        b3=b2.getdetails(b2);
        b3.putdata();
    }
}
```

```
Enter the number of books:
2
Enter the number of Cassettes:
2
Enter the book details:
Title:
Price:
340
Page Count:
560
Enter the book details:
Title:
OliverTwist
Price:
450
Page Count:
400
Enter the Cassette details:
Title:
Holocaust
Price:
450
Playing time in minutes:
34
Enter the Cassette details:
Title:
Life
Price:
200
Playing time in minutes:
20
The books with the number of pages greater than 500 :
The book Details are:
Title: Outbreak
Price: 340.0
Page Count: 560
The no. of books with pages greater than 500: 1
Enter the playing time:
30
The Cassettes with Playing time lesser than 30 minutes is:
Title: Life

This is inside the method returning object of class book
The book Details are:
Title: BreakTime
Price: 500.0
Page Count: 330
```