/\*=================================================================================

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\* Assignment No: 2

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//Problem Statement::

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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, Bookclass has author and orderCopies().

Magazine Class has data members as orderQty, Current issue and method receiveNewissue().Write a program to find how many copies of the given books are ordered and display total sale of publication.

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import java.util.\*;

class publication {

//private data members

private String title;

private int price;

private int copies;

private int total;

Scanner sc=new Scanner(System.in);//scanner class object

public void settitle(String title) {

//setter method for title

this.title=title;

}

public void setcopies(int copies) {

//setter method for copies

this.copies=copies;

}

public String gettitle() {

//getter method for title

return title;

}

public int getTotal() {

//getter method for price

return total;

}

public int getCopies() {

//getter method for copies

return copies;

}

public int getprice() {

return price;

}

void read\_publ() {

//read or input method for common data members of magazine and book class

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

title=sc.next();

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

price=sc.nextInt();

System.out.print("enter copies: ");

copies=sc.nextInt();

}

void display() {

//display method for common data members of book and magazine class

System.out.print(title+"\t"+price+"\t"+copies);

}

void sale\_copy(int number) {

//common method to sale book or magazine and generate bill

if (number <= copies)

//if customer needed copies are less than available

{

copies=copies-number;

total=total + number\*price;

System.out.println("\tYOU PURCHASED "+number +" COPIES \n\tYOU HAVE TO PAY : "+(price\*number));

}

else //if customer needs copies more than available in stock

System.out.println(" INSUFFICIENT STOCK!!!!!!!!!");

}

}

//======================= CLASS book =======================//

class book extends publication {

private String author;

//data member of book class only

void order\_copies(int number) { //increase available copies of book by ordering

int x=getCopies()+number;

setcopies(getCopies()+number);

//as data members are private, we access them with the help of methods

System.out.println("\n\tORDER SUCESSFUL....");

System.out.println("\tCOPIES AVAILABLE : "+x);

}

void read\_book() {

//method calling read method of publication class and also reading author

read\_publ();

System.out.print("enter author book: ");

author=sc.next();

}

void display\_book(){

System.out.println("title \tprice \tcopy \tauthor");

display();//call to display defined in publication class

System.out.println("\t"+author);

}

}

//======================= CLASS magazine =======================//

class magazine extends publication{

//magazine class is inherited from publication

private int order\_qty; //data members

private String issue\_date;

void receive\_issue(String new\_issue\_date) {

//method to issue new or upgraded magazine

System.out.println("ENTER NEW COPIES ORDERED: ");

order\_qty=sc.nextInt();

setcopies(order\_qty);

//setting values to copies by setter method

issue\_date=new\_issue\_date;

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

}

void read\_mag() { //method to read or input magazine details

read\_publ(); //call to read method defined in publication class

System.out.print("Enter THe Current Issue Date [dd/mm/yyyy]");

issue\_date=sc.next();

}

void display\_mag() { //display method to display

System.out.println("title \tprice \tcopy \tdate");

display();

System.out.println("\t"+issue\_date);

}

}

//======================= CLASS Main =======================//

public class Mauli2 {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

book b=new book();

magazine m=new magazine();

int outer;

do {

System.out.println("\n\n\tCHOOSE ONE OF THE FOLLOWING....\n\n\t1.BOOK \t\t\t2.MAGAZINE"+ "\n\n\t3.TOTAL SALE AMOUNT\t4.REVENUE OF PUBLICATION\n\n");

System.out.print("Choice::");

int k=sc.nextInt();

int a;

aa:

if(k==1) {

do {

int c;

System.out.print("\n\t\tMENU FOR BOOK\n");

System.out.print("\t1.read book \t\t2.display \n\t3.sale copies \t\t4.order copies");

System.out.print("\n\tChoice::");

c=sc.nextInt();

switch (c){

case 1:

System.out.println("==========================================================\n");

b.read\_book();

System.out.println("==========================================================\n");

break;

case 2:

System.out.println("==========================================================\n");

b.display\_book();

System.out.println("==========================================================\n");

break;

case 3:

System.out.println("==========================================================\n");

System.out.print("HOW MANY COPIES YOU(for customer) WANT : ");

int n1=sc.nextInt();

b.sale\_copy(n1);

System.out.println("==========================================================\n");

break;

case 4:

System.out.println("==========================================================\n");

System.out.print("ENTER COPIES WANT TO ORDER(for shop): ");

int n2=sc.nextInt();

b.order\_copies(n2);

System.out.println("==========================================================\n");

break;

default:

System.out.println("invalid");

}

System.out.println("Do you want to continue with book section[1/0]\n\t1.YES \t\t0.NO");

System.out.print("\tChoice::");

a=sc.nextInt();

if(a==0)

break aa;

}while(a==1);

}

else if(k==2)

{

mm:

do {

System.out.println("\n\t\tMENU FOR MAGAZINE...\n\n\t1.READ \t\t2.DISPLAY \n\t3.SALE MAGAZINE COPIES \t4.RECEIVE NEW ISSUE\n");

int d;

System.out.print("\n\tChoice::");

d=sc.nextInt();

switch(d) {

case 1:

System.out.println("==========================================================\n");

m.read\_mag();

System.out.println("==========================================================\n");

break;

case 2:

System.out.println("==========================================================\n");

m.display\_mag();

System.out.println("==========================================================\n");

break;

case 3:

System.out.println("==========================================================\n");

System.out.println("HOW MANY COPIES YOU WANT(customer)?? ");

int n3=sc.nextInt();

m.sale\_copy(n3);

System.out.println("==========================================================\n");

break;

case 4:

System.out.println("==========================================================\n");

System.out.println("ENTER THE NEW ISSUE DATE [dd/mm/yyyy]: ");

String date=sc.next();

m.receive\_issue(date);

System.out.println("==========================================================\n");

break;

}

System.out.println("DO YOU WANT TO CONTINUE WITH MAGAZINE SECTION [1/0]\n\t1.YES\t0.NO");

System.out.print("\tChoice::");

a=sc.nextInt();

if(a==0)

break mm;

}while(a==1);

}

else if (k==3) {

System.out.println("\n\tTOTAL SALE AMOUNT IS(to be paid by customer) = "+(b.getTotal()+m.getTotal())+ " ");

}

else if(k==4) {

System.out.println("\n\tTOTAL REVENUE OF PUBLICATION IS : "+ (b.getCopies()\*b.getprice() + m.getCopies()\*m.getprice()));

}

else

System.out.println("invalid key....");

System.out.println("DO YOU WANT TO CONTINUE WITH PUBLICATION???\n\t1.CONTINUE \t0.TERMINATE");

outer=sc.nextInt();

}while(outer!=0);

sc.close();

}

}

**OUTPUT:**

CHOOSE ONE OF THE FOLLOWING....

1.BOOK 2.MAGAZINE

3.TOTAL SALE AMOUNT 4.REVENUE OF PUBLICATION

Choice::1

MENU FOR BOOK

1.read book 2.display

3.sale copies 4.order copies

Choice::1

==========================================================

enter title : java

enter price: 500

enter copies: 2

enter author book: bajarne

==========================================================

Do you want to continue with book section[1/0]

1.YES 0.NO

Choice::1

MENU FOR BOOK

1.read book 2.display

3.sale copies 4.order copies

Choice::2

==========================================================

title price copy author

java 500 2 bajarne

==========================================================

Do you want to continue with book section[1/0]

1.YES 0.NO

Choice::1

MENU FOR BOOK

1.read book 2.display

3.sale copies 4.order copies

Choice::3

==========================================================

HOW MANY COPIES YOU(for customer) WANT : 1

YOU PURCHASED 1 COPIES

YOU HAVE TO PAY : 500

==========================================================

Do you want to continue with book section[1/0]

1.YES 0.NO

Choice::1

MENU FOR BOOK

1.read book 2.display

3.sale copies 4.order copies

Choice::4

==========================================================

ENTER COPIES WANT TO ORDER(for shop): 1

ORDER SUCESSFUL....

COPIES AVAILABLE : 2

==========================================================

Do you want to continue with book section[1/0]

1.YES 0.NO

Choice::0

DO YOU WANT TO CONTINUE WITH PUBLICATION???

1.CONTINUE 0.TERMINATE

1

CHOOSE ONE OF THE FOLLOWING....

1.BOOK 2.MAGAZINE

3.TOTAL SALE AMOUNT 4.REVENUE OF PUBLICATION

Choice::2

MENU FOR MAGAZINE...

1.READ 2.DISPLAY

3.SALE MAGAZINE COPIES 4.RECEIVE NEW ISSUE

Choice::1

==========================================================

enter title : Titanic

enter price: 500

enter copies: 2

Enter THe Current Issue Date [dd/mm/yyyy]28/20/2024

==========================================================

DO YOU WANT TO CONTINUE WITH MAGAZINE SECTION [1/0]

1.YES 0.NO

Choice::1

MENU FOR MAGAZINE...

1.READ 2.DISPLAY

3.SALE MAGAZINE COPIES 4.RECEIVE NEW ISSUE

Choice::2

==========================================================

title price copy date

Titanic 500 2 28/20/2024

==========================================================

DO YOU WANT TO CONTINUE WITH MAGAZINE SECTION [1/0]

1.YES 0.NO

Choice::1

MENU FOR MAGAZINE...

1.READ 2.DISPLAY

3.SALE MAGAZINE COPIES 4.RECEIVE NEW ISSUE

Choice::3

==========================================================

HOW MANY COPIES YOU WANT(customer)??

1

YOU PURCHASED 1 COPIES

YOU HAVE TO PAY : 500

==========================================================

DO YOU WANT TO CONTINUE WITH MAGAZINE SECTION [1/0]

1.YES 0.NO

Choice::1

MENU FOR MAGAZINE...

1.READ 2.DISPLAY

3.SALE MAGAZINE COPIES 4.RECEIVE NEW ISSUE

Choice::4

==========================================================

ENTER THE NEW ISSUE DATE [dd/mm/yyyy]:

23/12/2024

ENTER NEW COPIES ORDERED:

1

THE MAGAZINE Titanic

WITH ISSUE DATE 23/12/2024AVAILABLE

==========================================================

DO YOU WANT TO CONTINUE WITH MAGAZINE SECTION [1/0]

1.YES 0.NO

Choice::0

DO YOU WANT TO CONTINUE WITH PUBLICATION???

1.CONTINUE 0.TERMINATE

1

CHOOSE ONE OF THE FOLLOWING....

1.BOOK 2.MAGAZINE

3.TOTAL SALE AMOUNT 4.REVENUE OF PUBLICATION

Choice::3

TOTAL SALE AMOUNT IS(to be paid by customer) = 1000

DO YOU WANT TO CONTINUE WITH PUBLICATION???

1.CONTINUE 0.TERMINATE

1

CHOOSE ONE OF THE FOLLOWING....

1.BOOK 2.MAGAZINE

3.TOTAL SALE AMOUNT 4.REVENUE OF PUBLICATION

Choice::4

TOTAL REVENUE OF PUBLICATION IS : 1500

DO YOU WANT TO CONTINUE WITH PUBLICATION???

1.CONTINUE 0.TERMINATE

0