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Polymorphism

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 order Copies(). Magazine Class has methods

orderQty, Currentissue, receiveissue().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.Scanner;  
class Publication{

String title;  
 int price , copies ;  
 public static int *total*=0;  
 public int SaleCopy() {  
 System.*out*.println("Total Sale of Publication is"+(copies\*price));  
 return (price \* copies);  
 }  
 public int getCopies () {  
 return this.copies;  
 }  
 public int setCopies(int cp) {  
 return this.copies = cp;  
 }  
 public int setPrice(int p) {  
 return this.price = p;  
 }  
}  
class Book extends Publication{  
 String author;  
 int pcopies,price1;  
 public int salecopy() {  
 System.*out*.println("\n Total Sale of Book is: \n "+(copies\*price));  
 *total*=*total*+(copies\*price);  
 return(copies\*price);  
 }  
 public void Ordercopies() {  
 Scanner in=new Scanner(System.*in*);  
 System.*out*.println("Enter The Title of the book to be ordered");  
 title=in.nextLine();  
 System.*out*.println("Enter the Author of the book to be ordered");  
 author=in.nextLine();  
 System.*out*.println("Enter the Number of copies to be ordered");  
 pcopies=in.nextInt();  
 System.*out*.println("Enter the Price of the book to be ordered");  
 price1=in.nextInt();  
 this.pcopies = pcopies;  
 setCopies (getCopies()+pcopies);  
 setPrice(price1);  
 }  
}  
class Magazine extends Publication  
{

private int orderQty;  
 private String currentIsuue;  
 public String getCurrentIsuue() {  
 return this.currentIsuue;  
 }  
 public void setCurrentIsuue(String currentIsuue) {  
 this.currentIsuue = currentIsuue;  
 }  
 public int getOrderQty() {  
 return orderQty;  
 }  
 public void setOrderQty(int orderQty) {  
 this.orderQty = orderQty;  
 }  
 @Override  
 public int SaleCopy() {  
 System.*out*.println("Total sale of magazineis::"+(copies\*price));  
 *total*=*total*+(copies\*price);  
 return (copies\*price);  
 }  
 public void recvNewIsuue(String pNewIsuue)  
 {  
 setCopies(orderQty);  
 currentIsuue=pNewIsuue;  
 }  
}  
public class RMD {  
 public static void main(String[] args) {  
 Book b1=new Book();  
 b1.Ordercopies();  
 System.*out*.println("Total Copies of the book ordered:\n "+b1.copies);  
 System.*out*.println("Name of the book1 order:\n "+b1.title);  
 b1.salecopy();  
 Book b2=new Book();  
 b2.Ordercopies();  
 System.*out*.println("\n Total Copies of Book2 ordered"+b2.copies);  
 System.*out*.println("Name of the Book22 ordered "+b2.title);  
 b2.salecopy();  
 System.*out*.println("\n Total Scale of the Publication \n "+b1.*total*);  
 }  
}  
**OUTPUT**

//Enter The Title of the book to be ordered  
//C and C++ Language  
//Enter the Author of the book to be ordered  
//Balaguru Swami  
//Enter the Number of copies to be ordered  
//120  
//Enter the Price of the book to be ordered  
//669  
//Total Copies of the book ordered:  
// 120  
//Name of the book1 order:  
//C and C++ Language  
//  
//Total Sale of Book is:  
// 80280  
//Enter The Title of the book to be ordered  
//Data Structure and Algorithm  
//Enter the Author of the book to be ordered  
// Narasimha  
//Enter the Number of copies to be ordered  
//100  
//Enter the Price of the book to be ordered  
//769  
//  
//Total Copies of Book2 ordered100  
//Name of the Book22 ordered Data Structure and Algorithm  
//  
//Total Sale of Book is:  
// 76900  
//  
//Total Scale of the Publication  
// 157180