Solution 2:

Taxable.java

package Task\_3;  
  
public interface Taxable {  
 double *salestax* = (double) 7 /100;  
 double *incometax* = 10.5/100;  
 void calcTax(int empid);  
  
}

Employee.java

package Task\_3;  
import java.util.Scanner;  
  
public class Employee2 implements Taxable {  
 @Override  
 public void calcTax(int eid) {  
 for (int i = 0; i < 2; i++) {  
 if (empid[i] == eid) {  
 double tax = salary[i] \* *incometax*;  
 int total=salary[i]-(int)tax;  
 System.*out*.println("Empid: "+empid[i] + " Tax 7%: "+tax+" Toatalincome: " + total);  
 }  
 }  
 }  
 public int[] empid = new int[2];  
 String[] empname = new String[2];  
 public int[] salary = new int[2];  
 int tax;  
  
 public void addemp(int[] eid, String[] name, int[] sal) {  
 // System.out.println("enter the employee details");  
  
 for (int i = 0; i <2 ; i++) {  
 empid[i] = eid[i];  
 empname[i] = name[i];  
 salary[i] = sal[i];  
  
 }  
 }  
 public void dispaly() {  
 for (int i = 0; i < 2; i++) {  
 System.*out*.println(empid[i] + " " + empname[i] + " " + salary[i]);  
 }  
  
 }  
   
}

Product.java

package Task\_3;  
  
public class Product2 implements Taxable{  
  
 public void calcTax(int eid) {  
 for (int i = 0; i < 2; i++) {  
 if (pid[i] == eid) {  
 double tax = price[i] \* *salestax*;  
 int total=price[i]-(int)tax;  
 System.*out*.println("Empid: "+pid[i] + " Tax10.5: "+tax+" Toatal price: " + total);  
 }  
 }  
 }  
 public int[] pid = new int[2];  
 String[] proname = new String[2];  
 public int[] price = new int[2];  
  
  
 public void addpro(int[] p, String[] pname, int[] rs) {  
 // System.out.println("enter the employee details");  
  
 for (int i = 0; i <2 ; i++) {  
 pid[i] = p[i];  
 proname[i] = pname[i];  
 price[i] = rs[i];  
  
 }  
 }  
  
 public void pdispaly() {  
 for (int i = 0; i < 2; i++) {  
 System.*out*.println(pid[i] + " " + proname[i] + " " + price[i]);  
 }  
  
 }  
}

DriverMain.java

package Task\_3;  
  
import java.util.Scanner;  
public class DriverMain {  
 static Employee2 *ee*= new Employee2();  
 static Product2 *pp*=new Product2();  
 public static void main(String[] args) {  
 Scanner s=new Scanner(System.*in*);  
 int[] empid=new int[2];  
 int[] salary=new int[2];  
 String[] empname=new String[2];  
 int[] pid=new int[2];  
 int[] price=new int[2];  
 String[] pname=new String[2];  
 System.*out*.println("Enter the employee details");  
 for (int i = 0; i < 2; i++) {  
 empid[i] = s.nextInt();  
 empname[i] = s.next();  
 salary[i] = s.nextInt();  
 }  
 *ee*.addemp(empid,empname,salary);  
 *ee*.dispaly();  
 System.*out*.println("enter the empi id");  
 int e2=s.nextInt();  
 *ee*.calcTax(e2);  
 System.*out*.println("");  
  
 System.*out*.println("Enter the product details");  
 for (int i = 0; i < 2; i++) {  
 pid[i] = s.nextInt();  
 pname[i] = s.next();  
 price[i] = s.nextInt();  
 }  
 *pp*.addpro(pid,pname,price);  
 *pp*.pdispaly();  
 System.*out*.println("enter the pid id");  
 int e3=s.nextInt();  
 *pp*.calcTax(e3);  
  
 }  
}

output:

Enter the employee details

1

guvi

20000

2

java

100000

list of employee details

1 guvi 20000

2 java 100000

enter the empi id

2

Empid: 2 Tax 7%: 10500.0 Toatalincome: 89500

Enter the product details

101

rice

200

102

wheat

80

list of product details

101 rice 200

102 wheat 80

enter the pid id

101

Empid: 101 Tax10.5: 14.000000000000002 Toatal price: 186

Solution 1:

Book.java

package Task\_3;  
  
public class Book {  
 //global variables  
 public int bookid;  
 public String title, author, isavailable;  
  
 public Book() { //default constructor  
  
 }  
 public Book(int bid,String title,String author,String isavail){ // parameterised constructor  
 this.bookid=bid;  
 this.title=title;  
 this.author=author;  
 this.isavailable=isavail;  
 }  
  
 public String toString(){ //tostring method overriding  
 return this.bookid+" "+this.title+" "+this.author+" "+this.isavailable;  
  
 }  
}

Library.java

package Task\_3;  
  
public class Library {  
 static Book[] *b*=new Book[5];// array to create class object  
 public int bno = 0;  
 public int bbno=0;  
 // add method to add book details  
 public void addbook(int bid, String tt, String au, String isavail) {  
  
 *b*[bno] = new Book(bid, tt, au, isavail);  
 bno++;  
 }  
 public void searchbook (int bo) { //search methos to search book  
 int i;  
 boolean b1 = false;  
 for (i = 0; i < *b*.length; i++) {  
 if ((bo == *b*[i].bookid)) {  
 b1 = true;  
 }  
 }  
 if (b1) {  
 System.*out*.println("avail");  
 } else {  
 System.*out*.println("not avail");  
 }  
 }  
  
 public void displaybook() { // display method to display the entered records of book  
  
 System.*out*.println(*b*[bbno].toString());  
 bbno++;  
 }  
 public void deletebook(int bo){ //delete method to delete the record  
 int i;  
 //boolean b1 = false;  
 for (i = 0; i < *b*.length-1; i++) {  
 if ((bo == *b*[i].bookid)) {  
 *b*[i] = null;  
 System.*out*.println("record deleted");  
 }  
 }  
  
 }  
 }

BookManagement.java

package Task\_3;  
  
import java.util.Scanner;  
  
public class BookManagement {  
 public static void main(String[] args) {  
 Scanner s = new Scanner(System.*in*);  
 int[] bid = new int[5];  
 String[] tt = new String[5], au = new String[5], is = new String[5];  
 Library lib=new Library();  
 int i;  
 System.*out*.println("Enter five book records");  
 for (i = 0; i<5; i++) { //for loop used to get book details  
 bid[i] = s.nextInt();  
 tt[i] = s.next();  
 au[i] = s.next();  
 is[i] = s.next();  
 }  
 for (int j = 0; j < 5; j++) { // for loop to call addbook function  
 int b=bid[j];  
 String t=tt[j];  
 String a=au[j];  
 String iss=is[j];  
 lib.addbook(b,t,a,iss);  
 }  
  
 // display method called to display the records in list  
 System.*out*.println("please find the book records list with boookid title author and avail status");  
  
 for (int j = 0; j < 5; j++) {  
 lib.displaybook();  
 }  
 // enter value to search book..... enter only book id number  
 System.*out*.println("type bookid to search book");  
 int sid=s.nextInt();  
 lib.searchbook(sid);  
 // enter the bookid to deleted  
 System.*out*.println("enter bookid to be deleted");  
 int dd=s.nextInt();  
 lib.deletebook(dd);  
 lib.displaybook();  
}  
  
 }

Output:

Enter five book records

1

Tamil

Ranjith

avail

2

Computer

Guvi

avail

3

Science

Kalam

avail

4

Physics

Raghu

avail

5

English

Shakespear

avail

please find the book records list with boookid title author and avail status

1 Tamil Ranjith avail

2 Computer Guvi avail

3 Science Kalam avail

4 Physics Raghu avail

5 English Shakespear avail

type bookid to search book

3

avail

enter bookid to be deleted

5

record deleted