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**SECTION:A5**

**COURSE NAME: Java programming**

**COURSE CODE:CSE18R272**

**PROGRAM:1**

**Class Box {**

**Private double width ;**

**Private double height ;**

**Private double depth ;**

**Box ( double w , double h , double l) {**

**Width = w;**

**Height = h ;**

**Depth = l;**

**}**

**Box () {**

**Width = -1;**

**Height = -1;**

**Depth = -1;**

**}**

**Double volume () {**

**Return width \* height \* depth ;**

**}**

**}**

**Class BoxWeight extends Box {**

**Double weight ; // weight of box**

**BoxWeight ( double w , double h , double d , double m) {**

**Super (w , h , d ); // call superclass constructor**

**Weight = m;**

**}**

**BoxWeight (){**

**Super ();**

**Weight = -1;**

**}**

**}**

**Public class Main**

**{**

**Public static void main(String[] args) {**

**BoxWeight b1 = new BoxWeight(5.4,3.6,2.4,4.8);**

**BoxWeight b2 = new BoxWeight();**

**Double v ;**

**Vol = b1 . volume ();**

**System . out . println (“ Volume of mybox1 is “ + v );**

**Vol = b2 . volume ();**

**System . out . println (“ Volume of mybox3 is “ + v );**

**}**

**}**

**PROGRAM:2**

**Class Date {**

**Int day ;**

**Int month ;**

**Int year ;**

**Public Date ( int d , int m , int y) {**

**If(m<13 && d<31){**

**Month = m; day=d; year=y;**

**}**

**Else{**

**System.out.println(“incorrect date”);**

**}**

**}**

**Void setMonth(int m){**

**If(m<13)**

**Month=m;**

**Else**

**System.out.println(“incorrect format”);**

**}**

**Void setDay(int d){**

**If(d<31)**

**Day=d;**

**Else**

**System.out.println(“incorrect format”);**

**}**

**Void setYear(int y){**

**If((y/1000)==0)**

**Year=y;**

**Else**

**System.out.println(“incorrect format”);**

**}**

**Int getMonth(){**

**Return month;**

**}**

**Int getDay(){**

**Return day;**

**}**

**Int getYear(){**

**Return year;**

**}**

**Void display () {**

**System.out.println(“The date is “ + day +”/” + month + “/” + year);**

**}**

**}**

**Public class Main**

**{**

**Public static void main(String[] args) {**

**Date d1 = new Date(16,9,2020);**

**D1.display();**

**D1.setDay(15);**

**D1.setMonth(9);**

**D1.setYear(2020);**

**}**

**}**

**PROGRAM:3**

**Class SavingsAccount{**

**Static float AnnualIntrestrate = (float)4.0;**

**Private float SavingsBalance;**

**Void caluclateMonthlyIntrest(){**

**Float intrest = ((SavingsBalance\*AnnualIntrestrate)/12);**

**SavingsBalance+=intrest;**

**System.out.println(“balance is “ + SavingsBalance);**

**}**

**Static void ModifyIntrestrate(float rate){**

**AnnualIntrestrate=rate;**

**}**

**Public SavingsAccount(float balance){**

**SavingsBalance=balance;**

**}**

**}**

**Public class Main**

**{**

**Public static void main(String[] args) {**

**SavingsAccount s1 = new SavingsAccount(2000.0f);**

**SavingsAccount s2 = new SavingsAccount(3000.0f);**

**S1.caluclateMonthlyIntrest();**

**S2.caluclateMonthlyIntrest();**

**SavingsAccount.ModifyIntrestrate(5.0f);**

**S1.caluclateMonthlyIntrest();**

**S2.caluclateMonthlyIntrest();**

**}**

**}**

**PROGRAM:4**

**Import java.util.Scanner;**

**Class Book**

**{**

**String bookName;**

**String author;**

**String ISBN, publisher;**

**Book(String title, String auth, String isbn, String publish)**

**{**

**bookName = title;**

**author =auth;**

**this.ISBN = isbn;**

**publisher = publish;**

**}**

**Void setTitle(String name)**

**{ bookName = name; }**

**Void setAuthor(String auth)**

**{ author = auth; }**

**Void setISBN(String s)**

**{ ISBN = s; }**

**Void setPublisher(String p)**

**{**

**Publisher = p;**

**}**

**String getTitle()**

**{ return bookName; }**

**String getAuthor()**

**{ return author; }**

**String getISBN()**

**{ return ISBN; }**

**String getPublisher()**

**{ return publisher; }**

**String bookInfo()**

**{**

**String info = bookName + “ “ + author + “ “ + ISBN + “ “ + publisher;**

**Return info;**

**}**

**}**

**Public class Main**

**{**

**Public static void main(String[] args) {**

**Book b[] = new Book[30];**

**B[0] = new Book(“Programming in Java”, “Rama”, “12345”, “Wiley”);**

**String title, auth, isbn, publisher;**

**Scanner s = new Scanner(System.in);**

**For (int I =1; I < 5; i++)**

**{**

**Title = s.next();**

**Auth = s.next();**

**Isbn = s.next();**

**Publisher = s.next();**

**B[i] = new Book(title,auth,isbn,publisher);**

**}**

**B[2].setTitle(“Software Testing”);**

**System.out.println(b[2].getTitle());**

**String info;**

**For (int I =0; i<5; i++) {**

**Info = b[i].bookInfo();**

**System.out.println(info);**

**}**

**}**

**}**