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Status	Finished
Started	Sunday, 6 October 2024, 9:52 AM
Completed	Sunday, 6 October 2024, 10:12 AM
Duration	20 mins 31 secs

Question **1**

Correct

Marked out of 5.00

RBI issues all national banks to collect interest on all customer loans.

Create an RBI interface with a variable String parentBank="RBI" and abstract method rateOfInterest().

RBI interface has two more methods default and static method.

default void policyNote() {

System.out.println("RBI has a new Policy issued in 2023.");

}

static void regulations(){

System.out.println("RBI has updated new regulations on 2024.");

}

Create two subclasses SBI and Karur which implements the RBI interface.

Provide the necessary code for the abstract method in two sub-classes.

Sample Input/Output:

RBI has a new Policy issued in 2023
RBI has updated new regulations in 2024.
SBI rate of interest: 7.6 per annum.
Karur rate of interest: 7.4 per annum.

For example:

Test	Result
1	RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum.

Answer: (penalty regime: 0 %)

```java
import java.util.*;
interface RBI{
    double rateOfInterest(double num);
    default void policyNote(){
        System.out.println("RBI has a new Policy issued in 2023");
    }
    static void regulations(){
        System.out.println("RBI has updated new regulations in 2024.");
    }
}
class SBI implements RBI{
    public double rateOfInterest(double num){
        return num;
    }
}
class Karur implements RBI{
    public double rateOfInterest(double num1){
        return num1;
    }
}
class prog{
    public static void main(String[] args){
        RBI s1 = new SBI();
        RBI s2 = new Karur();
        s1.policyNote();
        RBI.regulations();
        System.out.println("SBI rate of interest: "+s1.rateOfInterest(7.6)+" per annum.");
        System.out.println("Karur rate of interest: "+s2.rateOfInterest(7.4)+" per annum.");
    }
}
```

	Test	Expected	Got	
✓	1	RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum.	RBI has a new Policy issued in 2023 RBI has updated new regulations in 2024. SBI rate of interest: 7.6 per annum. Karur rate of interest: 7.4 per annum.	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 5.00

create an interface Playable with a method play() that takes no arguments and returns void. Create three classes Football, Volleyball, and Basketball that implement the Playable interface and override the play() method to play the respective sports.

```
interface Playable {
    void play();
}
```

```
class Football implements Playable {
    String name;
    public Football(String name){
        this.name=name;
    }
  public void play() {
    System.out.println(name+" is Playing football");
   }
}
```

Similarly, create Volleyball and Basketball classes.

Sample output:

```
Sadhvin is Playing football
Sanjay is Playing volleyball
Sruthi is Playing basketball
```

For example:

Test	Input	Result
1	Sadhvin Sanjay Sruthi	Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball
2	Vijay Arun Balaji	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball

Answer: (penalty regime: 0 %)

```
import java.util.*;
import java.util.Scanner;
interface playable{
    void play();
}
class football implements playable{
    String name;
    public football(String name){
        this.name =  name;

    }
    public void play(){
        System.out.println(name+ " is Playing football");
    }
}
class volleyball implements playable{
    String name1;
    public volleyball(String name1){
        this.name1 = name1;
    }
    public void play(){
        System.out.println(name1+" is Playing volleyball");
    }
}
class basketball implements playable{
    String name2;
    public basketball(String name2){
        this.name2 = name2;
    }
    public void play(){
        System.out.println(name2+" is Playing basketball");
    }
}
```

```
class prog{
    public static void main(String[] args){
        Scanner s = new Scanner(System.in);
        String a = s.nextLine();
        String b = s.nextLine();
        String c = s.nextLine();
        football s1 = new football(a);
        volleyball s2 = new volleyball(b);
        basketball s3 = new basketball(c);
        s1.play();
        s2.play();
        s3.play();
    }
}
```

	Test	Input	Expected	Got	
✓	1	Sadhvin Sanjay Sruthi	Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball	Sadhvin is Playing football Sanjay is Playing volleyball Sruthi is Playing basketball	✓
✓	2	Vijay Arun Balaji	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball	✓

Passed all tests! ✓

Question **3**

Correct

Marked out of 5.00

Create interfaces shown below.

 interface Sports {
public void setHomeTeam(String name);
public void setVisitingTeam(String name);
}
 interface Football extends Sports {
public void homeTeamScored(int points);
public void visitingTeamScored(int points);}
create a class College that implements the Football interface and provides the necessary functionality to the abstract methods.

sample Input:

Rajalakshmi
Saveetha
22
21

Output:

Rajalakshmi 22 scored
Saveetha 21 scored
Rajalakshmi is the Winner!

For example:

Test	Input	Result
1	Rajalakshmi Saveetha 22 21	Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner!

Answer: (penalty regime: 0 %)

Reset answer

```
import java.util.Scanner;
 interface Sports {
public void setHomeTeam(String name);
public void setVisitingTeam(String name);

}
 interface Football extends Sports {
public void homeTeamScored(int points);
public void visitingTeamScored(int points);

}
class College implements Football {
    String homeTeam;
    String visitingTeam;

    public void setHomeTeam(String name){
        homeTeam = name;
   }
public void setVisitingTeam(String name){
    visitingTeam = name;

}
public void homeTeamScored(int points){
    System.out.println(homeTeam+" "+points+" scored");
}
public void visitingTeamScored(int points){
  System.out.println(visitingTeam+" "+points+" scored");
}
public void winningTeam(int p1, int p2){
    if(p1>p2)
    System.out.println(homeTeam+" is the winner!");
    else if(p1<p2)
    System.out.println(visitingTeam+" is the winner!");
    else
    System.out.println("It's a tie match.");
```

```
}
}
class prog{
    public static void main(String[] args){
        String hname;
        Scanner sc= new Scanner(System.in);
        hname=sc.nextLine();
        String  vteam=sc.next();
        int htpoints=sc.nextInt();
        int vtpoints=sc.nextInt();
    College s= new College();
    s.setHomeTeam(hname);
    s.setVisitingTeam(vteam);
    s.homeTeamScored(htpoints);
    s.visitingTeamScored(vtpoints);
    s.winningTeam(htpoints,vtpoints);

```

	Test	Input	Expected	Got	
✓	1	Rajalakshmi Saveetha 22 21	Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner!	Rajalakshmi 22 scored Saveetha 21 scored Rajalakshmi is the winner!	✓
✓	2	Anna Balaji 21 21	Anna 21 scored Balaji 21 scored It's a tie match.	Anna 21 scored Balaji 21 scored It's a tie match.	✓
✓	3	SRM VIT 20 21	SRM 20 scored VIT 21 scored VIT is the winner!	SRM 20 scored VIT 21 scored VIT is the winner!	✓

Passed all tests! ✓

◄ Lab-07-MCQ

Jump to...

Generate series and find Nth element ►