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Status	Finished
Started	Tuesday, 8 October 2024, 6:18 PM
Completed	Tuesday, 8 October 2024, 7:00 PM
Duration	41 mins 56 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 %)

```
interface RBI
 1
 2 ▼ {
        String parentBank = "RBI";
3
 4
        double rateOfInterest();
 5
        default void policyNote()
 6
 7
8
            System.out.println("RBI has a new Policy issued in 2023");
9
10
        static void regulations()
11
            System.out.println("RBI has updated new regulations in 2024.");
12
13
14
15
    class SBI implements RBI
16
17
18
        public double rateOfInterest()
19
20
            return 7.6;
21
22
23
    class Karur implements RBI
24
25
        public double rateOfInterest()
26
27
            return 7.4;
28
29
30
31
    public class Main
32
        public static void main(String[] args)
33
34
35
            RBI rbi = new SBI();
36
            rhi.nolicvNote():
```

```
37
            RBI.regulations();
38
39
            SBI sbi = new SBI();
            System.out.println("SBI rate of interest: " + sbi.rateOfInterest()+ " per annum.");
40
41
            Karur karur = new Karur();
42
            System.out.println("Karur rate of interest: " + karur.rateOfInterest()+ " per annum.");
43
44
45
        }
46 }
```

	Test	Expected	Got	
~	RBI has a new Policy issued in 2023 RE RBI has updated new regulations in 2024. RE SBI rate of interest: 7.6 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 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	Rajalakshmi 22 scored
	Saveetha	Saveetha 21 scored
	22	Rajalakshmi is the winner!
	21	

Answer: (penalty regime: 0 %)

Reset answer

```
1 → import java.util.Scanner;
 2
     interface Sports
3 ▼ {
         void setHomeTeam(String name);
4
5
         void setVisitingTeam(String name);
 6
 7
   interface Football extends Sports
8 ▼ {
9
        void homeTeamScored(int points);
10
        void visitingTeamScored(int points);
11
12
13
    class College implements Football
14
15
        private String homeTeam;
16
        private String visitingTeam;
17
        private int homeTeamPoints=0;
18
        private int visitingTeamPoints=0;
19
        public void setHomeTeam(String name)
20
21
            this.homeTeam=name;
22
23
24
25
    public void setVisitingTeam(String name)
26
27
        this.visitingTeam=name;
28
29
30
    public void homeTeamScored(int points)
31
32
        homeTeamPoints+=points;
33
        System.out.println(homeTeam+" "+points+" scored");
34
```

```
35
   public void visitingTeamScored(int points)
36 •
         visitingTeamPoints+=points;
37
       System.out.println(visitingTeam+" "+points+" scored");
38
39
40
    public void winningTeam()
41
42 ▼ {
         \quad \textbf{if} (\texttt{homeTeamPoints} \mathbin{>} \texttt{visitingTeamPoints})
43
44
              System.out.println(homeTeam+ " is the winner!");
45
46
         else if(homeTeamPoints<visitingTeamPoints)</pre>
47
48
              System.out.println(visitingTeam+ " is the winner!");
49
50
         else
51
52 ▼
         {
```

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

Passed all tests! ✓

```
Question 3
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 %)

```
1 → import java.util.Scanner;
 2
    interface Playable
 3 🔻
    {
 4
         void play();
 5
 6
 7
    class Football implements Playable
 8 ,
 9
        String name;
10
        public Football(String name)
11
         {
12
            this.name=name;
13
14
15
         public void play()
16
             System.out.println(name+ " is Playing football");
17
18
         }
19
20
21
    class Volleyball implements Playable
22 ▼ {
23
        String name;
24
25
         public Volleyball(String name)
26
27
             this.name=name;
28
29
30
         public void play()
31
            System.out.println(name+ " is Playing volleyball");
32
```

```
33
34
35
   class Basketball implements Playable
36
37 ▼ {
38
        String name;
39
        public Basketball(String name)
40
41 🔻
42
            this.name=name;
43
44
45
        public void play()
46
47
            System.out.println(name+ " is Playing basketball");
48
49
        }
50
        public class Main
51
52 🔻
```

	Test	Input	Expected	Got	
~	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	Vijay is Playing football Arun is Playing volleyball Balaji is Playing basketball	~

Passed all tests! ✓

■ Lab-07-MCQ

Jump to...

Generate series and find Nth element ►