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Status	Finished
Started	Thursday, 3 October 2024, 11:10 PM
Completed	Thursday, 3 October 2024, 11:11 PM
Duration	1 min 38 secs

Question **1**

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

```java
import java.util.Scanner;
interface Sports {
    void setHomeTeam(String name);
    void setVisitingTeam(String name);
}
interface Football extends Sports {
    void homeTeamScored(int points);
    void visitingTeamScored(int points);
}
class College implements Football {
    private String homeTeam;
    private String visitingTeam;
    private int homeScore;
    private int visitingScore;
    public void setHomeTeam(String name) {
        this.homeTeam = name;
    }
    public void setVisitingTeam(String name) {
        this.visitingTeam = name;
    }
    public void homeTeamScored(int points) {
        this.homeScore = points;
    }
    public void visitingTeamScored(int points) {
        this.visitingScore = points;
    }
    public void displayResult() {
        System.out.println(homeTeam + " " + homeScore + " scored");
        System.out.println(visitingTeam + " " + visitingScore + " scored");
        if (homeScore > visitingScore) {
            System.out.println(homeTeam + " is the winner!");
        } else if (visitingScore > homeScore) {
            System.out.println(visitingTeam + " is the winner!");
        } else {
            System.out.println("It's a tie match.");
        }
    }
}
public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
                College match = new College();
        String homeTeam = scanner.nextLine();
        String visitingTeam = scanner.nextLine();
        int homeScore = scanner.nextInt();
        int visitingScore = scanner.nextInt();
        match.setHomeTeam(homeTeam);
        match.setVisitingTeam(visitingTeam);
        match.homeTeamScored(homeScore);
        match.visitingTeamScored(visitingScore);
        match.displayResult();
        scanner.close();
```

	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! ✓

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.Scanner;
interface Playable {
    void play();
}
class Football implements Playable {
    String name;
    public Football(String name) {
        this.name = name;
    }

    @Override
    public void play() {
        System.out.println(name + " is Playing football");
    }
}
class Volleyball implements Playable {
    String name;

    public Volleyball(String name) {
        this.name = name;
    }
    @Override
    public void play() {
        System.out.println(name + " is Playing volleyball");
    }
}
class Basketball implements Playable {
    String name;
    public Basketball(String name) {
        this.name = name;
    }
    @Override
    public void play() {
        System.out.println(name + " is Playing basketball");
    }
}
public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String footballPlayerName = scanner.nextLine();
        String volleyballPlayerName = scanner.nextLine();
        String basketballPlayerName = scanner.nextLine();
        Playable footballPlayer = new Football(footballPlayerName);
        Playable volleyballPlayer = new Volleyball(volleyballPlayerName);
        Playable basketballPlayer = new Basketball(basketballPlayerName);
        footballPlayer.play();
        volleyballPlayer.play();
        basketballPlayer.play();
        scanner.close();
    }
}

```

	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

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
interface RBI {
    String parentBank = "RBI";
        double rateOfInterest();
    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 {
    @Override
    public double rateOfInterest() {
        return 7.6;
    }
}
class Karur implements RBI {
    @Override
    public double rateOfInterest() {
        return 7.4;
    }
}
public class Main {
    public static void main(String[] args) {
        SBI sbi = new SBI();
        Karur karur = new Karur();
        sbi.policyNote();
        RBI.regulations();
        System.out.println("SBI rate of interest: " + sbi.rateOfInterest() + " per annum.");
        System.out.println("Karur rate of interest: " + karur.rateOfInterest() + " 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! ✓

◄ Lab-07-MCQ

Jump to...

Generate series and find Nth element ►