### **Question 1 [10 Points]**

Design the **Player** class such that the following outputs are produced.

| **Driver Code** | **Output** |
| --- | --- |
| public class playerTest {  public static void main(String[] args) {  Player p1 = new Player("LM10", 38);  System.out.println("--------1--------");  p1.addAward("World Cup", 1);  System.out.println("--------2--------");  p1.display();  System.out.println("--------3--------");  System.out.println(p1.totalAwards());  System.out.println("--------4--------");  Player p2 = new Player("CR7", 40);  System.out.println("--------5--------");  String[] arr1 = {"UNL", "BDR", "UCL"};  int[] arr2 = {2, 5, 5};  for (int i = 0; i < arr1.length; i++) {  p2.addAward(arr1[i], arr2[i]);  }  System.out.println("--------6--------");  p2.addAward("PL", 3, "World Cup", 1);  System.out.println("--------7--------");  p2.display();  System.out.println("--------8--------");  System.out.println(p2.totalAwards());  System.out.println("--------9--------");  System.out.println(p2.clearAwards());  System.out.println("--------10--------");  System.out.println(p2.totalAwards());  System.out.println("--------11--------");  p2.display();  }  } | Player created!  --------1--------  World Cup added to award list of LM10  --------2--------  Name: LM10, Age: 38  Award list:  World Cup: 1  --------3--------  Total awards of LM10 : 1  --------4--------  Player created!  --------5--------  UNL added to award list of CR7  BDR added to award list of CR7  UCL added to award list of CR7  --------6--------  PL added to award list of CR7  Cannot add more awards  --------7--------  Name: CR7, Age: 40  Award list:  UNL: 2  BDR: 5  UCL: 5  PL: 3  --------8--------  Total awards of CR7 : 15  --------9--------  All awards of CR7 have been cleared.  --------10--------  Total awards of CR7 : 0  --------11--------  Name: CR7, Age: 40 |

| Solution:  class Player {  public String name;  public int age;  public String[] awards = new String[4];  public int[] num = new int[4];  public int count = 0;  public int total;  public Player(String name, int age){  this.name = name;  this.age = age;  System.out.println("Player created!");  }  public void addAward(String aw, int n){  if (count < awards.length){  awards[count] = aw;  num[count] = n;  total += n;  count++;  System.out.println(aw + " added to award list of " + name);  }  else {  System.out.println("Cannot add more awards");  }  }  public void addAward(String aw1, int n1, String aw2, int n2){  addAward(aw1, n1);  addAward(aw2, n2);  }  public String totalAwards(){  return "Total awards of "+name+" : "+total;  }  public String clearAwards() {  count = 0;  awards = new String[4];  num = new int[4];  total = 0;  return "All awards of " + name + " have been cleared.";  }  public void display() {  System.out.println("Name: "+name+", Age: "+age);  if (count > 0) {  System.out.println("Award list:");  for (int i = 0; i < count; i++) {  System.out.println(awards[i]+": "+num[i]);  }  }  }  } |
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### **Question 2 [9+1 Points]**

| | 1 | public class Quiz2 { | | --- | --- | | 2 | public int a = 3, b = 4, temp = 1; | | 3 | public int[] r = {2, 6}; | | 4 | public Quiz2(){ | | 5 | int temp = b \* (++b); | | 6 | a = temp - a; | | 7 | this.a += this.method(temp, a); | | 8 | } | | 9 | public void method(int [] r, Quiz2 p) { | | 10 | p.b = this.a + temp - p.b; | | 11 | temp = p.temp + r[0]; | | 12 | a = this.r[0] + r[1]; | | 13 | System.out.println(r[0] + " " + this.r[1] + " " + p.temp); | | 14 | p.a = b + p.method(this.r[0], r[1]) + p.b; | | 15 | } | | 16 | public int method(int a, int b) { | | 17 | a += temp - b; | | 18 | temp = this.temp - r[0] + this.b; | | 19 | r[0] = r[1]++ + b + temp; | | 20 | System.out.println(r[0] +" "+ r[1] +" "+ a); | | 21 | return temp; | | 22 | } | | 23 | } | | Illustrate the output of the following statements written in the main method of a tester class. [Answers without workings on the script will be rejected]:  **//Tester Code**  **Quiz2 p = new Quiz2();**  **int[] r = {4, 5, 0};**  **p.method(r, p);**  **Output:**   |  |  |  | | --- | --- | --- | |  |  |  | |  |  |  | |
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