

Question-1 with both input and output files shown...

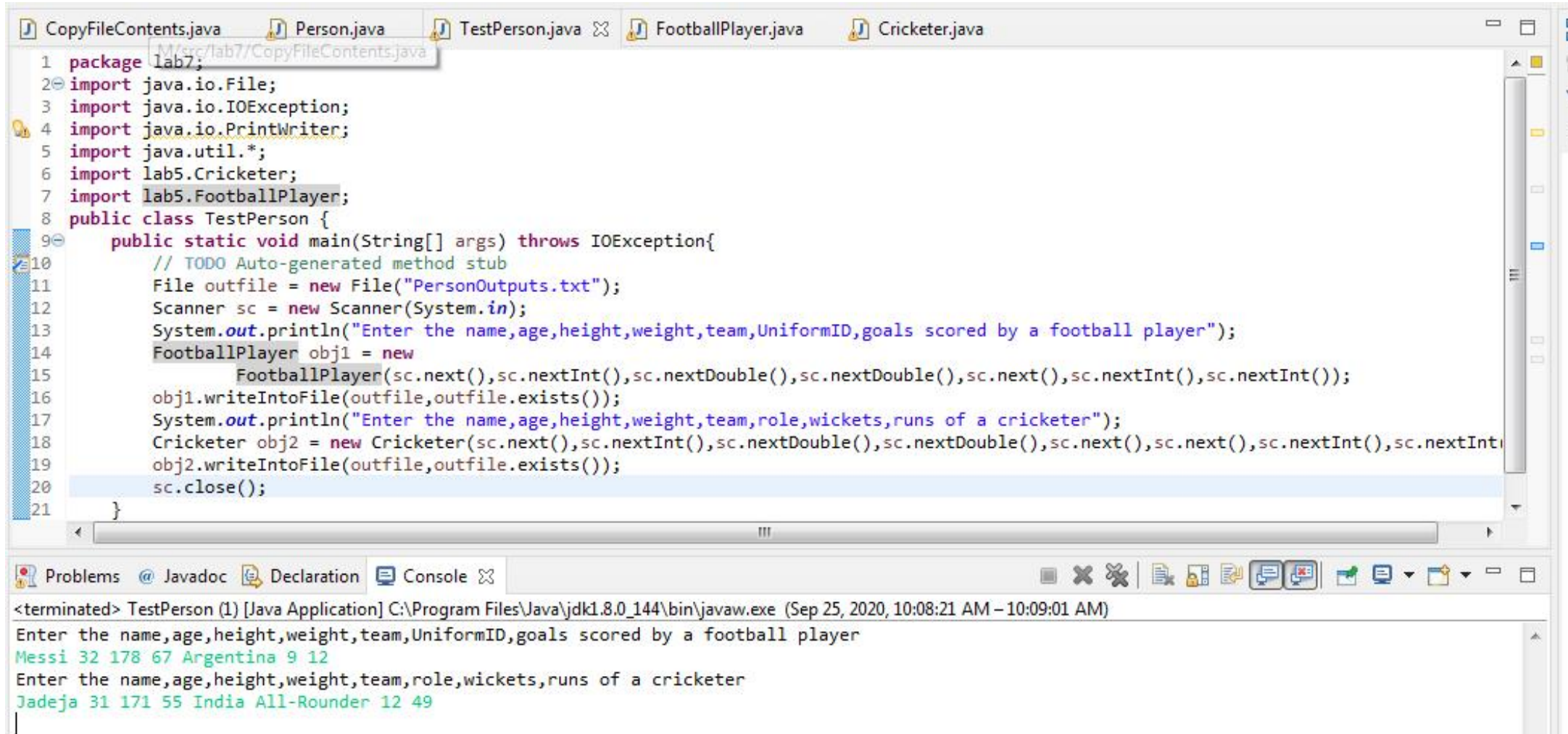
S.SRIHARI - 2018103601

The screenshot displays the Eclipse IDE environment. The Package Explorer on the left shows a project structure with a package named 'lab7' containing several Java files, including 'CopyFileContents.java'. The main editor window shows the source code of 'CopyFileContents.java'.

```
1 package lab7;
2 import java.io.*;
3 import java.util.*;
4 public class CopyFileContents {
5
6     public static void main(String[] args) throws IOException {
7         // TODO Auto-generated method stub
8         //FileInputStream input = new FileInputStream("src/samplefile.txt");
9         //System.out.println("Attempting to read from file in: "+input.getCanonicalPath());
10        //FileOutputStream output = new FileOutputStream("copysample.txt");
11        File infile = new File("src/samplefile.txt");
12        File outfile = new File("copysample.txt");
13        Scanner input = new Scanner(infile);
14        PrintWriter output = new PrintWriter(outfile);
15
16        while(input.hasNext()) {
17            output.print(input.next());
18            output.print(" ");
19        }
20
21        input.close();
22        output.close();
23    }
24 }
25
26 }
```

Two Notepad windows are open, both displaying the text: "Trying to copy file contents - 2018103601 srihari". The top window is titled 'copysample - Notepad' and the bottom window is titled 'samplefile - Notepad'. The bottom status bar of the IDE shows the command: '<terminated> CopyFileContents [Java Application] C:\Program Files\Java\jdk1.8.0_144\bin\javaw.exe (Sep 25, 2020, 10:15:22 AM - 10:15:22 AM)'.

Question-2 Tester Class and input entered



The screenshot shows an IDE with several tabs: CopyFileContents.java, Person.java, TestPerson.java, FootballPlayer.java, and Cricketer.java. The TestPerson.java tab is active, displaying the following code:

```
1 package lab7;
2 import java.io.File;
3 import java.io.IOException;
4 import java.io.PrintWriter;
5 import java.util.*;
6 import lab5.Cricketer;
7 import lab5.FootballPlayer;
8 public class TestPerson {
9     public static void main(String[] args) throws IOException{
10         // TODO Auto-generated method stub
11         File outfile = new File("PersonOutputs.txt");
12         Scanner sc = new Scanner(System.in);
13         System.out.println("Enter the name,age,height,weight,team,UniformID,goals scored by a football player");
14         FootballPlayer obj1 = new
15             FootballPlayer(sc.next(),sc.nextInt(),sc.nextDouble(),sc.nextDouble(),sc.next(),sc.nextInt(),sc.nextInt());
16         obj1.writeIntoFile(outfile,outfile.exists());
17         System.out.println("Enter the name,age,height,weight,team,role,wickets,runs of a cricketer");
18         Cricketer obj2 = new Cricketer(sc.next(),sc.nextInt(),sc.nextDouble(),sc.nextDouble(),sc.next(),sc.next(),sc.nextInt(),sc.nextInt());
19         obj2.writeIntoFile(outfile,outfile.exists());
20         sc.close();
21     }
22 }
```

The console output at the bottom shows the execution of the TestPerson class:

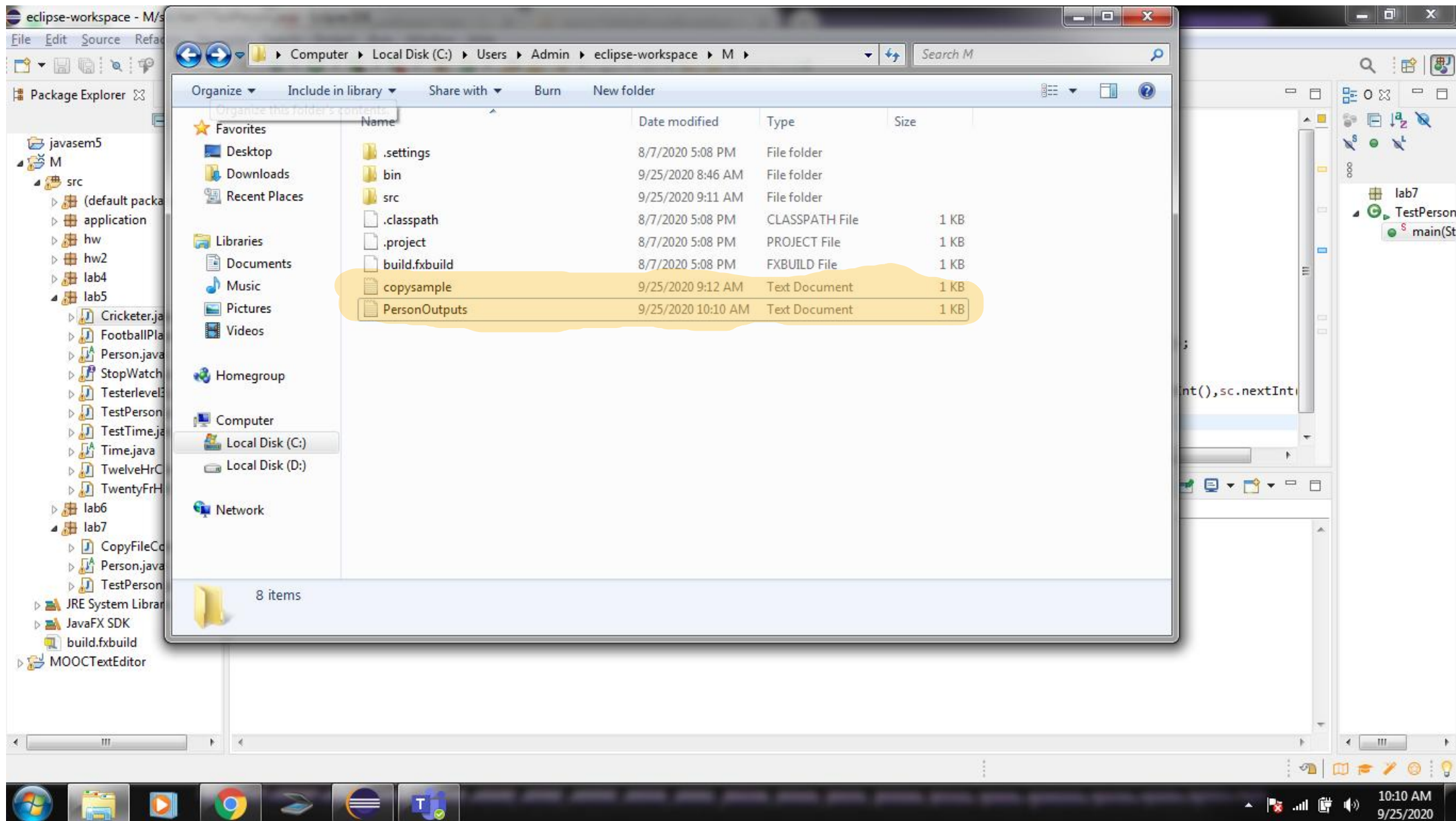
```
<terminated> TestPerson (1) [Java Application] C:\Program Files\Java\jdk1.8.0_144\bin\javaw.exe (Sep 25, 2020, 10:08:21 AM - 10:09:01 AM)
Enter the name,age,height,weight,team,UniformID,goals scored by a football player
Messi 32 178 67 Argentina 9 12
Enter the name,age,height,weight,team,role,wickets,runs of a cricketer
Jadeja 31 171 55 India All-Rounder 12 49
```

Question-2 Output file which has the input entered in required format

A screenshot of a Notepad window titled "PersonOutputs - Notepad". The window contains the following text:

```
The no of goals scored by this football player is 12
Displaying the details of a foolball player
Name: Messi
Age: 32
Height: 178.0
weight: 67.0
Team: Argentina
UniformNo: 9
Goals: 12
Displaying the details of a cricketer
Name: Jadeja
Age: 31
Height: 171.0
weight: 55.0
Country: India
Role: All-Rounder
wickets: 12
Runs: 49
```


Location of the output files in the directory



Question-2 Person Class

The screenshot displays the Eclipse IDE interface with the following components:

- Package Explorer (Left):** Shows a project structure with packages 'javasem5' and 'M'. Under 'M', there is a 'src' package containing several Java files, including 'Person.java' which is currently selected.
- Editor (Center):** Displays the code for 'Person.java'. The code defines an abstract class 'Person' with protected attributes 'name', 'age', 'height', and 'weight', and a constructor. It also includes getter methods for each attribute and a 'toString()' method that formats the object's state. A 'main' method is present with a TODO comment.
- Outline (Right):** Provides a hierarchical view of the 'lab7' package, showing the 'Person' class and its attributes and methods.
- Problems/Console (Bottom):** The console shows the output of running 'TestPerson.java', indicating a successful execution and displaying the prompt 'Enter the name,age,height,weight,team,UniformID,goals scored by a football player'.

```
1 package lab7;
2 import java.util.*;
3 public abstract class Person {
4     protected String name;
5     protected int age;
6     protected double height;
7     protected double weight;
8     protected Person() {
9
10    }
11    protected Person(String name, int age ,double height, double weight) {
12        this.name = name;
13        this.age = age;
14        this.height = height;
15        this.weight = weight;
16    }
17    public String getName() { return name; }
18    public int getAge() { return age; }
19    public double getHeight() { return height; }
20    public double getWeight() { return weight; }
21    public String toString() {
22        String res = "";
23        res += "Name: "+name;
24        res += " Age: "+age;
25        res += " Height: "+height;
26        res += " Weight: "+weight;
27        return res;
28    }
29
30    public static void main(String[] args) {
31        // TODO Auto-generated method stub
32
33    }
34 }
```

Console Output:

```
<terminated> TestPerson (1) [Java Application] C:\Program Files\Java\jdk1.8.0_144\bin\javaw.exe (Sep 25, 2020, 10:08:21 AM - 10:09:01 AM)
Enter the name,age,height,weight,team,UniformID,goals scored by a football player
```


Question-2 Cricketer Class

The screenshot shows the Eclipse IDE interface with the following components:

- Package Explorer (Left):** Displays the project structure. The 'src' folder contains several Java files, including 'Cricketer.java', 'FootballPlayer.java', 'Person.java', 'StopWatch.java', 'Testerlevel3.java', 'TestPerson.java', 'TestTime.java', 'Time.java', 'TwelveHrClock.java', and 'TwentyFrHrClock.java'. The 'lab5' folder is selected.
- Editor (Center):** Displays the code for 'Cricketer.java'. The code is as follows:

```
1 import java.io.FileOutputStream;
2 import java.io.IOException;
3 import java.io.PrintWriter;
4 import java.util.*;
5
6 public class Cricketer extends Person{
7     private String country;
8     private String role;
9     private int wickets;
10    private int runs;
11    public Cricketer() { }
12    public Cricketer(String name, int age ,double height, double weight) {
13        super(name,age,height,weight);
14    }
15    public String getCountry() { return country; }
16    public int getRuns() { return runs; }
17    public int getWickets() { return wickets; }
18    public String getRole() { return role; }
19    public Cricketer(String name, int age ,double height, double weight,String teamName,String role,int wickets,int runs) {
20        super(name,age,height,weight);
21        this.country = teamName;
22        this.role = role;
23        this.wickets = wickets;
24        this.runs = runs;
25    }
26    public void writeIntoFile(java.io.File outfile,boolean exists) throws IOException{
27        //PrintWriter output = new PrintWriter(outfile);
28        FileOutputStream output = new FileOutputStream(outfile,exists);
29        String s = "Displaying the details of a cricketer\n";
30        byte b[] = s.getBytes();
31        output.write(b);
32        s = this.toString();
33        b = s.getBytes();
34        output.write(b);
35        output.close();
36    }
37 }
```
- Console (Bottom):** Shows the output of the application. The message is:

```
<terminated> TestPerson (1) [Java Application] C:\Program Files\Java\jdk1.8.0_144\bin\javaw.exe (Sep 25, 2020, 10:08:21 AM - 10:09:01 AM)
Enter the name,age,height,weight,team,UniformID,goals scored by a football player
```
- Taskbar (Bottom):** Shows the Windows taskbar with various application icons and the system clock displaying 10:12 AM on 9/25/2020.

Question-2 Cricketer Class with writeIntoFile() method

The screenshot displays the Eclipse IDE interface. The Package Explorer on the left shows a project named 'javasem5' with a package 'M' containing a 'src' folder. Inside 'src', there are several Java files, including 'Cricketer.java' which is currently selected and open in the editor.

The editor shows the following code in 'Cricketer.java':

```
23  this.wickets = wickets;
24  this.runs = runs;
25  }
26  public void writeIntoFile(java.io.File outfile,boolean exists) throws IOException{
27      //PrintWriter output = new PrintWriter(outfile);
28      FileOutputStream output = new FileOutputStream(outfile,exists);
29      String s = "Displaying the details of a cricketer\n";
30      byte b[] = s.getBytes();
31      output.write(b);
32      s = this.toString();
33      b = s.getBytes();
34      output.write(b);
35      output.close();
36  }
37
38
39  @Override
40  public String toString() {
41      String res = "";
42      res += " Name: "+this.getName();
43      res += "\n Age: "+this.getAge();
44      res += "\n Height: "+this.getHeight();
45      res += "\n Weight: "+this.getWeight();
46      res += "\n Country: "+this.getCountry();
47      res += "\n Role: "+this.getRole();
48      res += "\n Wickets: "+this.getWickets();
49      res += "\n Runs: "+this.getRuns();
50      return res;
51  }
52  public static void main(String[] args) {
53      // TODO Auto-generated method stub
54  }
55
56  }
57
```

The right-hand side of the IDE shows the 'lab5' project structure, listing classes like 'Cricketer' and methods like 'country', 'role', 'wickets', 'runs', 'toString', and 'main'.

The bottom of the IDE shows the 'Console' tab with the following output:

```
<terminated> TestPerson (1) [Java Application] C:\Program Files\Java\jdk1.8.0_144\bin\javaw.exe (Sep 25, 2020, 10:08:21 AM - 10:09:01 AM)
Enter the name,age,height,weight,team,UniformID,goals scored by a football player
```

The status bar at the bottom indicates the file is 'Writable', 'Smart Insert' is enabled, and the cursor is at line 45, column 43.

Question-2 FootballPlayer class

The screenshot displays the Eclipse IDE interface with the 'FootballPlayer.java' file open in the editor. The Package Explorer on the left shows the project structure, including 'lab5' and its sub-packages. The editor window shows the following code:

```
1 package lab5;
2 import java.io.FileOutputStream;
3 import java.io.IOException;
4 import java.io.PrintWriter;
5 import java.util.*;
6 public class FootballPlayer extends Person implements Comparable<FootballPlayer>{
7     private String teamName;
8     private int UniformNo;
9     private int NoOfGoals;
10    public FootballPlayer() { }
11    public FootballPlayer(String name, int age ,double height, double weight) {
12        super(name,age,height,weight);
13    }
14    public FootballPlayer(String name, int age ,double height, double weight,String teamName,int UniformNo,int NoOfGoals) {
15        super(name,age,height,weight);
16        this.teamName = teamName;
17        this.UniformNo = UniformNo;
18        this.NoOfGoals = NoOfGoals;
19    }
20    public int compareTo(FootballPlayer f) {
21        return this.NoOfGoals - f.NoOfGoals;
22    }
23
24    public void setGoals(int g) {this.NoOfGoals = g;}
25    public int getNoOfGoals() { return NoOfGoals; }
26    public String getTeamName() { return teamName; }
27    public int getUniformNo() { return UniformNo; }
28
29    public void writeIntoFile(java.io.File outfile,boolean exists) throws IOException{
30        FileOutputStream output = new FileOutputStream(outfile,exists);
31        String s = "The no of goals scored by this football player is "+this.getNoOfGoals();
32        byte b[] = s.getBytes();
33        output.write(b);
34        s = "\nDisplaying the details of a foolball player\n"+this.toString();
35    }
36 }
```

The Console window at the bottom shows the output of the 'TestPerson' application, which prompts the user to enter the name, age, height, weight, team, UniformID, and goals scored by a football player.

10:13 AM
9/25/2020

Question-2 FootballPlayer Class with writeIntoFile() method

The screenshot displays the Eclipse IDE interface. The Package Explorer on the left shows a project named 'javasem5' with a package 'M' containing a 'src' folder. Inside 'src', there are several Java files, including 'FootballPlayer.java'. The main editor window shows the code for 'FootballPlayer.java'. The code includes methods for getting player details and a 'writeIntoFile()' method that writes the player's details to a file. The console at the bottom shows the output of a test application, displaying the player's details and the file path.

```
14  eclipse-workspace - M/src/lab5/FootballPlayer.java - Eclipse IDE
15  File Edit Source Refactor Navigate Search Project Run Window Help
16
17  Package Explorer
18  javasem5
19  M
20  src
21  (default package)
22  application
23  hw
24  hw2
25  lab4
26  lab5
27  Cricketer.java
28  FootballPlayer.java
29  Person.java
30  Stopwatch.java
31  Testerlevel3.java
32  TestPerson.java
33  TestTime.java
34  Time.java
35  TwelveHrClock.java
36  TwentyFrHrClock.java
37  lab6
38  lab7
39  CopyFileContents.java
40  Person.java
41  TestPerson.java
42  JRE System Library [JavaSE-8]
43  JavaFX SDK
44  build.fxbuild
45  MOOCTextEditor
46
47  CopyFileContents.java
48  Person.java
49  TestPerson.java
50  FootballPlayer.java
51  Cricketer.java
52
53  public void setGoals(int g) { this.NoOfGoals = g; }
54  public int getNoOfGoals() { return NoOfGoals; }
55  public String getTeamName() { return teamName; }
56  public int getUniformNo() { return UniformNo; }
57
58  public void writeIntoFile(java.io.File outfile,boolean exists) throws IOException{
59      FileOutputStream output = new FileOutputStream(outfile,exists);
60      String s = "The no of goals scored by this football player is "+this.getNoOfGoals();
61      byte b[] = s.getBytes();
62      output.write(b);
63      s = "\nDisplaying the details of a football player\n"+this.toString();
64      b = s.getBytes();
65      output.write(b);
66      output.close();
67  }
68
69  @Override
70  public String toString() {
71      String res = "";
72      res += "Name: "+this.getName();
73      res += "\nAge: "+this.getAge();
74      res += "\nHeight: "+this.getHeight();
75      res += "\nWeight: "+this.getWeight();
76      res += "\nTeam: "+this.getTeamName();
77      res += "\nUniformNo: "+this.getUniformNo();
78      res += "\nGoals: "+this.getNoOfGoals();
79      return res;
80  }
81
82  public static void main(String[] args) {
83      // TODO Auto-generated method stub
84  }
85  }
86
87  Problems Javadoc Declaration Console
88  <terminated> TestPerson (1) [Java Application] C:\Program Files\Java\jdk1.8.0_144\bin\javaw.exe (Sep 25, 2020, 10:08:21 AM - 10:09:01 AM)
89  Enter the name,age,height,weight,team,UniformID,goals scored by a football player
90  Writable Smart Insert 11 : 80 : 394
91  10:13 AM 9/25/2020
```