KIT101 Programming Fundamentals

PP Task 3.2 Fill in the Blanks

Overview

Purpose: Learn how to declare variables, assign them values, use them in expressions and format a message to the user.

Task: Follow the instructions to create a short sports reporting program. Submit to MyLO when complete.

Learning Outcomes: 2 ⤸   3 ✏

Time: Complete during your tutorial and submit for feedback before the start of Week 4.

Resources:
- Introductory Programming Notes:
  - 04 Working with Primitive Data (and Strings)
  - 05 Using Objects
- Online Mini-lectures:
  - Solving Problems with Computers:
    - 🎥 Using 'primitive' data
    - 🎥 Some commonly used objects

Submission Details

Upload the following to the MyLO submission folder for this task:
- Your **SportsReport.java** source file
- A **screenshot** showing the execution of your SportsReport program

Assessment Criteria

A ▦ Completed   submission will:
- Prompt for and read the required details from the user
- Output the message according to the given template
- Follow the unit's coding style for layout, variable names (use of case), and commenting (including your name at the top)
- Compile, with the screenshot showing that it works

- Have the appropriate variables, and use them appropriately

Instructions

With almost all competitive team sport cancelled or put on hold the public is desperate for a replacement. Scientists have determined that the actual game doesn't matter,[1] as long as a sports fan can have a team they support and outcomes to feel good or bad about. You are to write a short sports news program that produces stories about the outcome from a single game in some (unnamed) sport to satisfy this need.

1. Create a new program with the following code as a starting point:

```java
import java.util.Scanner;

/**
 * 3.2PP Sports News Generator
 *
 * @author Replace with your name
 */
public class SportsReport {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String winner; //winning team's name, may be multiple words
        int round;     //current competition round

        System.out.println("Any Sport in a Storm");
        System.out.println();
        System.out.print("Enter the winning team's name: ");
        winner = sc.nextLine();
        System.out.print("What round of the competition? ");
        round = sc.nextInt();
    }

}
```

2. Modify the program so that it implements the following algorithm. You will need to declare additional variables, prompt for and read their values from the user, and produce three formatted lines of output at the end.

Program: **SportsReport**

Variables:

```
Scanner sc
String winner, winning team's name, may be multiple words
String loser, losing team's name
int round, current competition round
int winnerPoint, points scored by winner
int loserPoints, points scored by winner
int difference, point difference

Steps:
1. Create Scanner sc
2. Display the title of the program: "Any Sport in a Storm"
3. Prompt for winning team's name and store in winner
4. Prompt for losing team's name and store in loser
5. Prompt for the competition round and store in round
6. Prompt for points scored by the winning team and store in winnerPoints
7. Prompt for points scored by the losing team and store in loserPoints
8. Calculate their point difference as winnerPoints - loserPoints and store in difference
9. Display the following formatted messages, where each highlighted entry
   represents that variable's value:

   winner beat loser by difference points at the weekend in a thrilling game.
   The final score line was winnerPoints points to loserPoints.
   After just round rounds winner look like favourites to win the competition.
```

3. **Optional:** Change the displayed title of the program to something other than 'Any Sport in a Storm'.

4. Test your program with a variety of inputs to ensure it works as it should.

5. **Take a screenshot** of one run of your program and upload both the SportsReport.java source file and screenshot to the assignment submission folder on MyLO.

Suggestion: Can you think of other parts of the message that could be read in from the user to further customise it? You are not required to make any further changes to this task, but if you want to then you may continue working on a copy of it as you play with making it more flexible.

1. They have not. This is fake news, but seems pretty close to reality.↩