

MODULE NAME:	MODULE CODE:
INTRODUCTION TO PROGRAMMING LOGIC	IPRG5111

STUDENT NAME:	STUDENT NUMBER
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ASSIGNMENT 2

START

```
// Declaration
```

```
STRING strClub[20]
```

```
// Initialize array Alphabetically, eg: strClub[0] = "AFC_Bournemouth"
```

```
INITIALIZE ["AFC_Bournemouth", "Arsenal_FC", "Aston_Villa_FC", "Brentford_FC",
            "Brighton_&_Hove_Albion_FC", "Burnley_FC", "Chelsea_FC", "Crystal Palace_FC",
            "Everton_FC", "Fulham_FC", "Liverpool_FC", "Luton_Town_FC",
            "Manchester_City_FC", "Manchester_United_FC", "Newcastle_United_FC",
            "Nottingham_Forest_FC", "Sheffield_United FC", "Tottenham_Hotspur_FC",
            "West_Ham_United FC", "Wolverhampton_Wanderers_FC"]
```

```
NUM intPlayed[20]
```

```
NUM intWon[20]
```

```
NUM intDrawn[20]
```

```
NUM intLost[20]
```

```
NUM intGF[20]
```

```
NUM intGA[20]
```

```
NUM intGD[20]
```

```
NUM intPoints[20]
```

```
NUM totalDrawn
```

```
NUM totalLost
```

```
NUM avgDrawn
```

```
NUM avgLost
```

```
STRING searchClub
```

```
NUM foundIndex
```

```
CHARACTER searchChoice
```

```
STRING tempStr
```

```
NUM tempInt
```

```
NUM i
```

```
NUM j
```

```

// Input Values as per assignment
FOR i = 0 TO 19
    intPlayed[i] = 38
NEXT i

intWon = [13, 28, 20, 10, 12, 5, 18, 13, 13, 13, 24, 6, 28, 18, 18, 9, 3, 20, 14, 13]
intDrawn = [9, 5, 8, 9, 12, 9, 9, 10, 9, 8, 10, 8, 7, 6, 6, 9, 7, 6, 10, 7]
intLost = [16, 5, 10, 19, 14, 24, 11, 15, 16, 17, 4, 24, 3, 14, 14, 20, 28, 12, 14, 18]
intGF = [54, 91, 76, 56, 55, 41, 77, 57, 40, 55, 86, 52, 96, 57, 85, 49, 35, 74, 60, 50]
intGA = [67, 29, 61, 65, 62, 78, 63, 58, 51, 61, 41, 85, 34, 58, 62, 67, 104, 61, 74, 65]

```

// League Champion and Relegation (Sort)

```

FOR i = 0 TO 18
    FOR j = 0 TO 18 - i
        IF intPoints[j] < intPoints[j+1] THEN
            // Swap points
            templnt = intPoints[j]
            intPoints[j] = intPoints[j+1]
            intPoints[j+1] = templnt

```

// Swap club names

```

tempStr = strClub[j]
strClub[j] = strClub[j+1]
strClub[j+1] = tempStr

```

// Swap all other array elements

```

templnt = intPlayed[j]
intPlayed[j] = intPlayed[j+1]
intPlayed[j+1] = templnt

```

```

templnt = intWon[j]
intWon[j] = intWon[j+1]
intWon[j+1] = templnt

```

```

templnt = intDrawn[j]
intDrawn[j] = intDrawn[j+1]
intDrawn[j+1] = templnt

```

```

templnt = intLost[j]
intLost[j] = intLost[j+1]
intLost[j+1] = templnt

```

```

templnt = intGF[j]
intGF[j] = intGF[j+1]
intGF[j+1] = templnt

```

```

templnt = intGA[j]
intGA[j] = intGA[j+1]
intGA[j+1] = templnt

```

```

templnt = intGD[j]
intGD[j] = intGD[j+1]
intGD[j+1] = templnt

```

```

END IF
    NEXT j
NEXT i

OUTPUT "2023/2024 Premier League Champion: ", strClub[0], " with ", intPoints[0], " points"
OUTPUT "Relegated teams:"
OUTPUT "1. ", strClub[17], " with ", intPoints[17], " points"
OUTPUT "2. ", strClub[18], " with ", intPoints[18], " points"
OUTPUT "3. ", strClub[19], " with ", intPoints[19], " points"

// Search Team
OUTPUT "Would you like to search for a specific team? (Y/N)"
INPUT searchChoice

IF searchChoice = 'Y' OR searchChoice = 'y' THEN
    OUTPUT "Enter the club name to search:"
    INPUT searchClub

    foundIndex = -1

    FOR i = 0 TO 19
        IF strClub[i] = searchClub THEN
            foundIndex = i
        END FOR
    END IF
NEXT i

IF foundIndex = -1 THEN
    OUTPUT searchClub, " is not in the league."
ELSE
    OUTPUT "Club Name: ", strClub[foundIndex]
    OUTPUT "Games played: ", intPlayed[foundIndex]
    OUTPUT "Games won: ", intWon[foundIndex]
    OUTPUT "Games drawn: ", intDrawn[foundIndex]
    OUTPUT "Games lost: ", intLost[foundIndex]
    OUTPUT "Goals for: ", intGF[foundIndex]
    OUTPUT "Goals against: ", intGA[foundIndex]
    OUTPUT "Goal difference: ", intGD[foundIndex]
    OUTPUT "Points: ", intPoints[foundIndex]
END IF
END IF

STOP

```

League Champion:

🏆 Manchester City FC with 91 points

Relegated Teams (bottom 3):

↓ Luton Town FC with 26 points

↓ Burnley FC with 24 points

↓ Sheffield United FC with 16 points

League Statistics:

- Average games drawn: 8.05
- Average games lost: 14.95

Club Search Example

Would you like to search for a specific team? (Y/N): Y

Enter the club name to search: Chelsea FC

Club Name: Chelsea FC

Games played: 38

Games won: 18

Games drawn: 9

Games lost: 11

Goals for: 77

Goals against: 63

Goal difference: +14

Points: 63

EPL Table

Pos	Club	Pld	W	D	L	GF	GA	GD	Pts
1	Manchester City FC	38	28	7	3	96	34	+62	91
2	Arsenal FC	38	28	5	5	91	29	+62	89
3	Liverpool FC	38	24	10	4	86	41	+45	82
4	Aston Villa FC	38	20	8	10	76	61	+15	68
5	Tottenham Hotspur FC	38	20	6	12	74	61	+13	66
6	Chelsea FC	38	18	9	11	77	63	+14	63
7	Newcastle United FC	38	18	6	14	85	62	+23	60
8	Manchester United FC	38	18	6	14	57	58	-1	60
9	West Ham United FC	38	14	10	14	60	74	-14	52
10	Crystal Palace FC	38	13	10	15	57	58	-1	49
11	Brighton & Hove Albion FC	38	12	12	14	55	62	-7	48
12	AFC Bournemouth	38	13	9	16	54	67	-13	48
13	Fulham FC	38	13	8	17	55	61	-6	47
14	Wolverhampton Wanderers FC	38	13	7	18	50	65	-15	46
15	Everton FC	38	13	9	16	40	51	-11	45*
16	Brentford FC	38	10	9	19	56	65	-9	39
17	Nottingham Forest FC	38	9	9	20	49	67	-18	36
18	Luton Town FC	38	6	8	24	52	85	-33	26
19	Burnley FC	38	5	9	24	41	78	-37	24
20	Sheffield United FC	38	3	7	28	35	104	-69	16