

Solution Review 2: Implementing a Sports Team!

This lesson provides the solution to the challenge, "Implementing a Sports Team!" with an explanation.

WE'LL COVER THE FOLLOWING ^

- Solution

Solution

```
class Player:
    def __init__(self, ID, name, teamName):
        self.ID = ID
        self.name = name
        self.teamName = teamName

class Team:
    def __init__(self, name):
        self.name = name
        self.players = []

    def getNumberOfPlayers(self):
        return len(self.players)

    def addPlayer(self, player):
        self.players.append(player)

class School:
    def __init__(self, name):
        self.name = name
        self.teams = []

    def addTeam(self, team):
        self.teams.append(team)

    def getTotalPlayersInSchool(self):
        length = 0
        for n in self.teams:
            length = length + (n.getNumberOfPlayers())
        return length

p1 = Player(1, "Harris", "Red")
p2 = Player(2, "Carol", "Red")
p3 = Player(1, "Johnny", "Blue")
```

```

p4 = Player(2, "Sarah", "Blue")

red_team = Team("Red Team")
red_team.addPlayer(p1)
red_team.addPlayer(p2)

blue_team = Team("Blue Team")
blue_team.addPlayer(p2)
blue_team.addPlayer(p3)

mySchool = School("My School")
mySchool.addTeam(red_team)
mySchool.addTeam(blue_team)

print("Total players in mySchool:", mySchool.getTotalPlayersInSchool())

```



- **Line 2-5:** Defined initializer for `Player` .
- **Line 9-11:** Defined initializer for `Team` which also contains a list of `players` .
- **Line 13-14:** `getNumberOfPlayers()` returns the length of the list, `players` .
- **Line 16-17:** `addPlayer()` appends a `Player` object in the `players` list.
- **Line 21-23:** Defined initializer for `School` which also contains a list of `teams` .
- **Line 25-26:** `addTeam()` appends a `Team` object in the `players` list.
- **Line 28-32:** `getTotalPlayersInSchool` returns the total number of players in the school by adding the *length* of all the `players` list in the `teams` list.
- **Line 35-38:** Created four `Player` objects.
- **Line 40:** Created a `Team` object, `red_team` .
- **Line 41-42:** Added two `Player` objects in the `red_team`'s `players` list.
- **Line 44:** Created a `Team` object, `blue_team` .
- **Line 45-46:** Added two `Player` objects in the `blue_team`'s `players` list.
- **Line 48:** Created a `School` object, `mySchool` .
- **Line 49-50:** Added two `Team` objects in the `mySchool`'s `teams` list.

