I want you to create a class called Team that is a parent class and another class called BasketballTeam that inherits from the Team class. And you will create a Game class which will be an array of game objects IN the BasketballTeam class.

The Team class should have the following instance variables:

teamName (String)

wins (int)

losses (int)

winLossPct (Double)

games (array of Game objects)

AND the following methods:

getTeam - when called, it returns the team name

setTeam - when called, it receives a parameter that is used to set the instance variable teamName

setWinsLosses - when called it receives TWO parameters used to set the wins and the losses instance variables. Wins is the first parameter and Losses is the second parameter. This method will also calculate the winLossPct Instance variable.

getWins - when called it returns the number of wins

getLosses - when called it returns the number of losses

calcWinLossPct - calculates and updates the winLossPct attribute

The Game class will have the attributes:

myScore (int)

theirScore(int)

winOrLoss (string of W or L)

This class should have a constructor that receives all 3 parameters to populate the attributes.

The BasketballTeam class inherits from the Team class and add the following attributes:

totalPointsFor (int)

totalPointsAgainst (int)

The BasketballTeam class should also have methods to do the following:

addPointsFor - when called receives an int parameter. This value is added to the TotalPointsFor instance variable

addPointsAgainst - when called receives an int parameter. This value is added to the TotalPointsAgainst instance variable

getAllPoints - when called this method returns a string with the totalPointsFor and the totalPointsAgainst like the following:

Points for XX and Points Against XX

where XX is the values of the instance variables.

The child class should make the proper calls to the parent class (as needed)

Your html form should have the following code:

HW8Basic.html  [Download](https://learningsuite.byu.edu/plugins/Upload/fileDownload.php?fileId=ba54cce4-I6Km-wWzR-kNES-92642e95b33c) 

When the user clicks on the Play Game button you need to simulate an entire season.

You will first create an array of team objects for each team displayed on the html form in the WCC group.

Each team will play the other team 2 times, once as the home team and once as the visitor. The home team gets an extra 5 points. You will generate random numbers for each of the teams from 0 to 100. If there is a tie, you will play an overtime that generates a new random number score up to 15 points. This score will be added to the previous score. Do NOT add the extra bonus of 5 points for home teams during the overtime portion. If there is another tie, do another overtime period generating 2 new random numbers and adding it to the total score. Keep doing this until there is no tie.

When the game is over you will update the totalPointsFor and the totalPointsAgainst attributes by calling the methods (NOT using the attribute).

You will also update the wins and the losses for each team as a game is completed. You will call the calcWinLossPct method to update the winLossPct attribute.

You will also need to add a new game object to the games attribute for the team and make sure the constructor is appropriately called to populate myScore, theirScore, and winOrLoss.

Each team will play the other teams in the list 2 times but they will not play each other more than that.

Once the season is over you will sort the arrays based upon the wins and display all of the teams dynamically to the output "p" tag.

Make sure you use arrays of objects. Make sure you add appropriate comments. The assignment requirements are worth 90% so go the extra mile and make it look good for the extra 10 points.

Only 1 per team needs to be submitted. Do NOT submit more than that. Only people that worked on the project get their name in the submission box for the group.