Fantasy Football Problem

This exercise is very similar to the GradeBook.java example near the end of Chapter 6 of your textbook. Make sure you have watched the video "GradeBook and Fantasy Football" found in the " Arrays Part2" section. The Textbook's GradeBook example does many of the same things that you will need to do in your Fantasy Football program.

However, instead of a teacher grade book, we have the following fantasy football scores:

Team Name	Week 1	Week 2	Week 3	
Blind_Pigeons	123	95	121	ave=113
Spittn_Lamas	54	98	83	ave=78
Nut_Zippers	70	74	103	ave=82
Bucking_Broncos	108	119	81	ave=102
Weekly Ave:	88	96	97	

Create a FantasyFootball.java class to read in the information in the above table.

One of the differences in the overall structure is the fact that in Gradebook we didn't have any
Student names. In Fantasy Football we want a name for each team. This will require adding an additional array to store the names of the teams. You will simplify your efforts if the names of your teams do not include spaces. Then you can use next() instead of nextLine() and your code will be simplified.

You will get most of the credit for this assignment even if your output is not completely aligned as shown in the above image. Note that if you use the technique from GradeBook.java you will get a ragged looking table.

Getting the table aligned as seen in the above image will give you the last 5 points on this problem.

You can get the alignment to look somewhat OK, if you use tab characters to go to new columns and round the double values to integer values with a cast operation.

However, you can get perfect alignment using the System.printf(....) approach we have shown before.

Consider the following examples of printf and println:

```
String s ="something";
double d = 5.4321;
int x = 3456;

System.out.printf("%20s", s);   //Field of 20 characters, right justified
string
System.out.printf("%-20s", s);  //Field of 20 characters, left justified
string
```

```
System.out.printf("%8d", x);    //Field of 8 characters, right justified
integer
System.out.prinf("%-8d", x);    //Field of 8 characters, left justified
integer

System.out.println();    // Go to a new line
```

You should start with the "Starting Code" shown below.

Starting Code

```
package fantasy_football;

import java.util.Scanner;

public class FantasyFootball
{
    private int numberOfTeams; // Same as teamAverage.length.
    private int numberOfWeeks; // Same as weekAverage.length.

    private int[][] scores; //numberOfTeams rows and numberOfWeeks columns.
    private double[] weekAverage;  // contains an entry for each week
    private double[] teamAverage;  // contains an entry for each team
    private String[] teamName;     // contains an entry for each team

    public void enterInData( )
    {
        Scanner keyboard = new Scanner(System.in);

        System.out.println("Enter number of teams:");
        numberOfTeams = keyboard.nextInt( );

        System.out.println("Enter number of weeks:");
        numberOfWeeks = keyboard.nextInt( );


        // ************** Fill in Code ***************
        // Allocate array memory for teamName to store the team names.
        // Allocate array memory for scores (2 dimensional array) to store a
        // score for each team for each week.


        for (int team = 0; team < numberOfTeams; team++)
        {
            System.out.println("Enter team name");
            // ************** Fill in Code ***************
            // Read in Team name and store it in teamName


            for (int week = 0; week < numberOfWeeks; week++)
            {
                System.out.println("Enter score for team "+ teamName[team]);
                System.out.println("on week number " + (week+1));
                // ************  Fill in Code ***************
```

```
                // Read in a score and store it in the proper spot in the
scores array

            }
        }

    }


    public void fillTeamAverage( )
    {
        //********* Fill in Code *************
        // Allocate memory for the teamAverage.
        // Each entry in this array will contain the
        // average weekly score for a given team.
    }


    public void fillWeekAverage( )
    {
      //***********  Fill in Code *************
      // Allocate memory for the weekAverage instance variable.
      // Each entry in this array will contain the average of
      // all teams for a given week.

    }

    public void display( )
    {
       //*********  Fill in Code  ***************
       //  This method will print out the display that was shown above.
       //  At this point all of the information can be found in the
       //  private instance variables of the FantasyFootball class

    }

    public static void main(String[] args)
    {
        FantasyFootball f= new FantasyFootball();
        f.enterInData();
        f.fillTeamAverage();
        f.fillWeekAverage();

        f.display();
    }
}
**********************************
Sample Output from your program:
Enter number of teams:
4
Enter number of weeks:
3
Enter team name
Blind_Pigeons
Enter score for team Blind_Pigeons on week number 1
123
Enter score for team Blind_Pigeons on week number 2
```

```
95
Enter score for team Blind_Pigeons on week number 3
121
Enter team name
Spittn_Lamas
Enter score for team Spittn_Lamas on week number 1
54
Enter score for team Spittn_Lamas on week number 2
98
Enter score for team Spittn_Lamas on week number 3
83
Enter team name
Nut_Zippers
Enter score for team Nut_Zippers on week number 1
70
Enter score for team Nut_Zippers on week number 2
74
Enter score for team Nut_Zippers on week number 3
103
Enter team name
Bucking_Broncos
Enter score for team Bucking_Broncos on week number 1
108
Enter score for team Bucking_Broncos on week number 2
119
Enter score for team Bucking_Broncos on week number 3
81
*******************************
output from display() with ragged output
*******************************
Blind_Pigeons    123     95     121      Ave = 113
Spittn_Lamas    54     98     83      Ave = 78
Nut_Zippers    70     74     103      Ave = 82
Bucking_Broncos    108     119     81      Ave = 102
Weekly Ave:     88     96     97


*******************************
output from display() using printf
*******************************
Team Name             Week 1  Week 2  Week 3
Blind_Pigeons            123      95     121  ave = 113
Spittn_Lamas              54      98      83  ave = 78
Nut_Zippers               70      74     103  ave = 82
Bucking_Broncos          108     119      81  ave = 102
Weekly Ave:               88      96      97
```