Homework 5

You will have to create a BlueJ project for this homework. Don't forget to add the tests to your project and run them for feedback and insights on errors. Submit your final, compiled code to AsULearn by the due date.

MonetaryUnits Class
Write the **MonetaryUnits** class with a main method that
1. prompts the user for a double value representing a total number in dollars and cents that is stored in a variable called **money**.
2. Your program should classify the given amount of money into smaller monetary units. In particular, the program will report a list of the monetary equivalent in dollars, quarters, dimes, nickels, and pennies, as shown in the sample output.

For example, a sample run of the program would look as follows (tabbing is just for the sake of the example):

    Enter an amount in double for dollars: $11.56
    Your amount $11.56 consists of:
    11 dollars
    2 quarters
    0 dimes
    1 nickels
    1 pennies

Please be sure to use the correct variable name and format the output exactly as seen above. The tests will be checking for this.

Hint: If you are having issues with rounding errors, try multiplying your initial input from the user by 100.0 or consider rounding using a method or something similar.

FootballTeam Class
Write a **FootballTeam** class that represents a football team as follows:
1. The class has the following three fields which cannot be accessed outside of the class.
    a. name of the team (**teamName**)
    b. number of wins (**numOfWins**)
    c. number of losses (**numOfLosses**)
2. Write a constructor that accepts the name of the team (**n**), the number of wins (**w**), and the number of losses (**l**) as arguments and sets the class properties to those values.

3. Write methods that return the name of the team (**getTeamName**), the number of wins (**getNumOfWins**), and the number of losses (**getNumOfLosses**).
4. Next, write a method to increase the numbers of wins by 1 (**increaseWins**) and another method to increase the number of losses by one (**increaseLosses**).
5. Write a method that returns true when a team has a "good record," meaning the team has more wins than losses (**getRecord**).

FootballTeamDemo Class

Write a driver program in the **FootballTeamDemo** class that will demonstrate the FootballTeam class.
1. In the main method, construct a FootballTeam named "Mountaineers" with 3 wins and 5 losses.
2. Call the method that returns true when the team has a good record and print out the result.
3. Now make three calls to the method that increases the number of wins by 1.
4. Lastly, call the "good record" method again and print out the result.

Please complete the Javadoc comments and add any comments you believe are necessary to determine what the program is doing.

Make sure that your code compiles! **If your code does not compile, then you will receive a 0 on this assignment.**