CSCI 2916 Lab 5

Lab: Conversion Program

Write a program that asks the user to enter a distance in meters. The program will then present the following menu of selections until the user selects 5 Quit the program:

1. Convert to kilometers
2. Convert to inches
3. Convert to feet
4. Convert to yards
5. Quit the program

The program will convert the distance to kilometers, inches, or feet, depending on the user's selection by using methods. You should have 5 methods (display menu, convert to kilometers, convert to inches, convert to feet and convert to yards)

Sample Run (computer output is in bold, *user input is in italic***)**

Enter a distance in meters: *160*

1. **Convert to kilometers**
2. **Convert to inches**
3. **Convert to feet**
4. **Convert to yards**
5. **Quit the program**

Enter your choice: *1*

160.0 meters is 0.16 kilometers.

1. **Convert to kilometers**
2. **Convert to inches**
3. **Convert to feet**
4. **Convert to yards**
5. **Quit the program**

Enter your choice: *6*

Invalid selection. Enter your choice:*2*

160.0 meters is 6299.2 inches.

1. **Convert to kilometers**
2. **Convert to inches**
3. **Convert to feet**
4. **Convert to yards**
5. **Quit the program**

Enter your choice: *3*

160.0 meters is 524.96 feet.

1. **Convert to kilometers**
2. **Convert to inches**
3. **Convert to feet**
4. **Convert to yards**
5. **Quit the program**

Enter your choice: *4*

160.0 meters is 174.98

1. **Convert to kilometers**
2. **Convert to inches**
3. **Convert to feet**
4. **Convert to yards**
5. **Quit the program**

Enter your choice: *5*

Bye!

BEFORE YOU START WRITING CODE . . . On the back of this paper, sketch out:

- What are the major tasks? (**minimum of 4**)
- How are the major tasks related?
- What is the conversion calculation for each selection?
- Where are the methods called?
- Are they void or value returning?

Guidelines for a good program:

- The program works, following the dialog and rules above.
- The code is clear and understandable:
  - Properly indented
  - Representative variable names
  - Blank lines separate logical sections of code
  - Appropriate comments included
  - Preamble documentation is included
  - Include Javadoc comments for each method
  - Review program assignment rubric
- Test your program – create a table with various inputs and their correct outputs (based on manually calculating or through Excel). We call these expected results. Next run your program with those inputs and compare your program results (actual results) with the expected results. If your calculations are correct they should be the same.