CS 112 Assignment 6d

Submit your finished code to the Dropbox. You will need to pass off the assignments with the TA or tutor during their office hours (their information is in the CS 112 Course Information section of the Table of Contents), or the instructor in class. Follow the formatting guide which is also found in the CS 112 Course Information section.

Read the instructions carefully. Make sure your output matches the example run.

Objectives:

In this assignment you will learn how to do the following:

- Use the try except statement
- Use a function call as a boolean value

Program: function is_float()

Write a program that asks the user to enter something. Do NOT perform input validation on what the user entered.

Have your main() function call a second function that you write called is_float(), passing the user's input as an argument. Your is_float() function will use the try except statement to determine if the input can be converted to a float and return either the boolean value True or False back to main(). Print out the whether the user's input was a float or not in main().

After the program has finished, ask the user if they would like to play again. Use input validation to ensure the user answered with a 'Y' or 'N'. Keep the program running in an infinite loop until the user indicates they want to quit.

Key program requirements:

- Write a function called is_float() which has one parameter
- Use a try except statement in is_float() to determine if the user's input is a float
- Return the boolean value True or False to main()
- Print out the result in main()
- Use of global variables is NOT allowed
- The name of the variable inside main() which is passed to is_float() as an argument MUST be different than the name of the parameter inside of your is_float() function
- Make sure your program output matches the Example Run

Ponder – Discuss the following with your partner. Failure to do this activity and discuss these questions before you attempt to pass off your program will result in a failed pass off.

- Discuss how a function call can be used in an if statement without using the == comparison operator.
- In past programs we have used isdigit() to perform input validation for integer input. Discuss how you can use the try except statement to perform input validation for both floats and integers.

Example Run

> This program will ask the user to enter something and then check to see if it can be converted to a float.
>
> Please enter something: something
> Sorry, that's not a float.
> Would you like to play again? (Y/N): yep
> Invalid response. Please answer with a 'Y' or 'N'.
> Would you like to play again? (Y/N): Y
>
> This program will ask the user to enter something and then check to see if it can be converted to a float.
>
> Please enter something: 5
> It's a float!
> Would you like to play again? (Y/N): Y
>
> This program will ask the user to enter something and then check to see if it can be converted to a float.
>
> Please enter something: 3.14159
> It's a float!
> Would you like to play again? (Y/N): N
> >>>