**Lab1 (20pts)**

Complete the problems listed below using python expressions. Each problem must be completed at the python interactive shell (IDLE). Submit a screen shot showing the command entered for each expression and the result of the command. The solutions for multiple problems can be captured in one screen shot. Compile your screen shots into a word document (screen shots must be copied and pasted into the word document (**Submission with any other format will not be graded**) and submit the document as your lab. When submitting the word document, name your document as follows: firstInitial\_lastName\_CSC401\_lab1.doc. e.g. p\_saweh\_CSC401\_lab1.doc

1. Define a variable (intAge) and store 25 into the variable (.5pt)
2. Write a python expression that creates a string copy of the value in intAge and stores it in a variable strAge (1pts)
3. Define a list (grades1) that contains 10 letter grades. The value of a letter grade can be A, B, C, D, or E. Print the values in grades1 (1pt)
4. Copy the values in grades1 to another list, grades2 (1pt)
5. Print the last value in grades2 (1pt)
6. Use a constructor to create a float value, 25.9, and store the value in a variable (price). Print the value of price (1pts)
7. Create a float copy of the value stored in intAge and store it into a variable, fAge (1pt)
8. (5pts) Define a string variable (longWord) and store the value “Pseudopseudohypoparathyroidism” in it. Write Boolean expressions that check whether
   1. The first character of longWord is ‘p’
   2. The first and last characters of longWord are equal
   3. The next to the last character of longWord is s
   4. The last character of longWord is ‘m’
   5. The number of ‘s’ in longWord is four **(use one expression)**
9. Write an expression that stores a substring (first 10 characters) of longWord in a variable shortWord (1pt)
10. Write a Boolean expression that checks whether the result of dividing 100 by 4 is an even number. **One expression must be used for this problem (2pts)**
11. Use one of python’s built-in functions to sum the values stored in prices. (1pt)

prices = [2.5, 11.99, 13.99, 6.25, 0.99, 24.96]

1. Create a tuple (tprices) from prices (1pt)
2. Write an expression to overwrite the second item in tprices with the value 2.99. This expression will produce an error. Explain way? (.5pt)
3. Write python **expressions** that set the second item in prices to 12.99 and the fourth item to 1.99 (1pt)
4. Write a Boolean **expression** that checks whether the second item in price is equal to the second item in tprices and is the fourth item in prices higher than the last item in tprices. **One expression must be used for this problem (2pts)**