Lab Exercise 5

Focus

1. Define and call simple functions
2. Passing parameters to functions
3. Variable scope

This lab maps to learning objectives 1 through 3 from Competency Module 5: Write a Working Program Using Functions that include Parameters, Local and Global Variables.

Part A: Modify an Existing Program

For this portion of the lab, you will reuse the program you wrote in Lab 4A. Modify the solution to use use functions. For this lab:

1. You will define a function named main() (LO 1)
2. In the main function, you will input and validate the feet (validation loop). Then you will pass the value of feet to a function called feetToMiles (LO 2)
3. Function feetToMiles will perform the conversion and store the result in a local variable. This result will then be displayed from within the function using a print statement. (LO 1, 2, 3)

Save your program as firstname_lastname_Lab5a.py where you will replace firstname and lastname with your actual first and last name. Remember to use the extension .py.

Run and test your program. Once you are sure it works you will turn in the items listed in the next section.

Part B: Write Something New

Aloha Drafthouse has three categories of movie tickets they sell in their theater. These three are:

Matinee: $8
Regular: $9
Deluxe: $15

Write a program that asks how many tickets are sold for each category and then calculates the total revenue from the tickets.

For this lab:

1. Use global variables for the Matinee, Regular and Deluxe prices.

2. Your program should have a main function. Do the program input in the main function.
3. Define a separate function to calculate and display the results. The main function should pass the input values to your function as arguments. The revenue should be displayed with 2 decimal places.

By now you know the rules for saving files. Save this file according to those rules.