Lecture 13 questions

(These exercises are relevant for chapter 7 in Dierbach)

A1. Make a .py file called "my_first_module.py" where you have defined a function called "fact". For now, the fact function can display "This is my factorial function!". Place it in your working directory so it is readily available. Make another file called "main.py". From “main.py”, you can import my_first_module and call the fact function. Both files should be in the same directory.

A2. In class, we have covered four ways to import modules. Use each of them to import my_first_module. What do you have to write to call the "fact" function in each import method? Write the code in "main.py".

A3. In "my_first_module.py", make a copy of the "fact" function and call it "fact2". Modify "fact2" so it takes in one parameter, n, which is an integer. The return value from the function is the factorial of n.

The factorial is equal to $n \cdot (n-1)(n-2) \ldots 2 \cdot 1 = factorial$. So, if n = 3 then the factorial of 3 is $3 \cdot 2 \cdot 1 = 6$.

Use a for-loop to calculate the factorial. Remember that you have to re-import the module in the main file to make use of the updated function.

A4. Add a function to "my_first_module". Call it my_import(). This function asks the user to input a positive integer.

A5. Load the updated "my_first_module". Call the two functions: "my_import", and "fact2".