This is the final lab of this Summer class.

This assignments combines several labs, we worked on, into 1 python program.

Pay attention to all of the details. Use the python file names that I mention below.

Requirements

1. When importing modules, use alias names.
2. Create a module named Final\_Main.py
   1. It will contain the **main()** function
   2. The main function will do the following:
      1. Display a menu of options that can be performed.
      2. Ask user to enter the option.
      3. Validate the option. If not valid, display error msg and try again.
      4. Use a try – except TypeError to handle input that has characters in it.
      5. Based on the valid option chosen, call the appropriate function that will perform the operation.
      6. The main() function will print out all results returned by the functions.
3. Create a module named Final\_Math.py. It will contain the following Math functions:
   1. Function **calcMathOperations().**
   2. Function **calcPythagThm()**
   3. Function **calcQuadForm()**
   4. The input for these math operations will be done by the main() function.
4. Create a module named Final\_Stats.py
   1. Hard-code the text file name to Final\_Stats.txt.
   2. Function **calcBaseballStats()**. Contains the logic we used in Lab 5.
   3. All output will be done by this function.
5. Create a module named Final\_NewPassword.py
   1. Function **createNewPassword().**
   2. All I/O will be done inside this function.

Testing

1. Make sure all menu operations work. Also, make sure the logic catches any invalid numbers.
2. Test invalid characters.

Deliverables

1. Students will submit the 4 .PY files.
2. If you wish, you may zip up the 4 files. If you do used Win-zip that comes with the Windows OS.