ECP 3004: Python for Business Analytics
Department of Economics
College of Business
University of Central Florida
Spring 2021

Assignment 1

Due Sunday, January 17, 2021 at 11:59 PM
in your GitHub repository

Instructions:

Complete this assignment within the space on your GitHub repo in a folder called `assignment_01`. When you are finished, submit it by uploading your files to your GitHub repo using the interface in a browser. You are free to discuss your approach to each question with your classmates but you must upload your own work.

Question 1:

In this exercise, you will run the program `ADD_1_2_3.txt`, which adds the number in register 1 to the number in register 2 and saves the result in register 3.

a) Browse to the Webpage `http://proto.atech.tufts.edu/RodRego/`, on which you will run the RAP program.

b) Choose two numbers to add together to test this program. Enter the first number in register 1 and the second in register 2.

c) Take a screen shot of the Rodrego program in this initialized state and save it in `png` format as `ADD_1_2_3_init.png`. You might want to crop the image to show only the Rodrego screen, without the rest of your desktop on display.

d) Run the program `ADD_1_2_3.txt` to completion.

e) Take a screen shot of the Rodrego program in this completed state and save it in `png` format as `ADD_1_2_3_end.png`.

f) Upload the two `png` files into the `assignment_01` folder your GitHub repo. When you refresh your browser, you should see the images appear on the page. If not, verify that you have named the files precisely as specified and upload a new document, as necessary.

Question 2:

In this exercise, you will run the program `SUB_1_2_4.txt`, which subtracts the number in register 2 *from* the number in register 1 and saves the result in register 4. That is, if R_i is the content of register i, the content of register 4 should be $R_4 = R_1 - R_2$.

a) Browse to the Webpage `http://proto.atech.tufts.edu/RodRego/`, on which you will run the RAP program.

b) Choose two numbers to subtract to test this program. Enter the first number in register 1 and the second in register 2.

c) Take a screen shot of the Rodrego program in this initialized state. Wait until you see the result to name this file.

d) Run the program `SUB_1_2_4.txt` to completion.

e) Check the result. Is the correct value in register 4?

   i) If so, name the first image `SUB_1_2_4_init_success.png`. Then take a screen shot of the Rodrego program in this completed state and save it as `SUB_1_2_4_end_success.png`.

   ii) If not, name the first image `SUB_1_2_4_init_fail.png`. Then take a screen shot of the Rodrego program in this completed state and save it as `SUB_1_2_4_end_fail.png`.

f) Repeat the process in steps (a)–(d) with different values until you find a case that succeeded and another that failed. Name the two additional files of your second case as in step (e)(i) or (e)(ii), according to the outcome.

g) Upload all four `png` files into the `assignment_01` folder your GitHub repo. When you refresh your browser, you should see the images appear on the page. If not, verify that you have named the files precisely as specified and upload a new document, as necessary.