

Physics 503: Scientific Computing ~ Homework #0

Topic: Getting started with Python – conditionals, I/O, loops

Due: Friday Feb. 2 by midnight

Please turn in your files to my electronic dropbox in the manner discussed in class. For this assignment, the only files you will be turning in are the code files (.py files and .pdf versions for annotating).

Remember the file name format I ask for!

Format: Lastname_Assignment_filedescription.XX

Example: I have 1 code file and 2 figure files to turn in for HW03. I would name them:

Gladden_HW03_code.py

Gladden_HW03_code.pdf (remember I want a PDF version to comment on)

Gladden_HW03_fig1.png

Gladden_HW03_fig2.png

Assignment

Write python program to:

1. Ask the user for their name and age.
2. Report back to the user a string to the effect: "Hello NAME, your age is AGE years old."
3. Put this code in a **while** loop, calculate the average age of the users, and extend the string reported back to the user informing them whether they are older or younger than the average age.
4. Write the code so that when the word "done" is supplied for the name, the program breaks out of the loop and reports the final average of the ages.

Example Output:

```
What is your name? ("done" to Quit): Josh
```

```
What is your age? 48
```

```
Hello Josh, you are 48.0 years old
```

```
=====  
What is your name? ("done" to Quit): Sue
```

```
What is your age? 23
```

```
Hello Sue, you are 23.0 years old
```

```
=====  
What is your name? ("done" to Quit): Bob
```

```
What is your age? 34
```

```
Hello Bob, you are 34.0 years old
```

```
You are younger than the average age (35.0 years)
```

```
=====  
What is your name? ("done" to Quit): done
```