Python Programming Challenge
For Horizons Computer Science 2014

Introduction:

Congratulations, you have now completed the introduction to Computer Science course. I hope you have all had a great taste of what computers can do for you. Today we will be working on our final project. Having mastered all these concepts, its time to get creative and put them to good use. Below I have described two options for you to choose between. Feel free to work on creating either of these programs, or if you are feeling adventurous, work on your own project idea! Good luck programers!

Project One: The Calculator

Don't you hate forgetting your calculator at home? Me too! This project involves programming your own calculator to harness the power of python to do your math for you. Your program should do the following:

1. Ask the user the type of mathematical operation they wish to preform (multiply, divide, add, or subtract)
2. Then ask for the two numbers and supply the answer.

For Example, the program's console may look like this:

Which math operation (add, subtract)? add
What is the first number? 4
What is the second number? 5
Here is your result: 4 + 5 = 9

Project Two: Playing the Odds with Python

Have you ever been bored, and wanted to play a game, well great news! You can now play a guessing game against your own computer program! Your program should do the following:

1. Ask for your name, so it can address you by name!
2. Ask you to choose a number between 1 and another number.
3. Tell you if you guessed the number it was thinking of

Hint: Try using a while loop so you can play the guessing part of the game forever!

For example, the program's console may look like this:
Hello friendly competitor, what is your name? Nick
Why hello Nick, are you ready to play a game? (yes or no) Yes
Alright lets get started, pick a number between 1 and 5: 2
I'm sorry, the number was 3, please pick again: 5
I'm sorry, the number was 2, please pick again: 1
Hooray, you guessed the number! It took you 3 tries to beat me!

Project Three: Your Own Idea
Got some bright ideas? Its time to put those to good use! If you have something else you have been itching to work on, feel free to work on that program instead of the other two ideas. Or if you are really feeling adventurous, perhaps try combining the first two project ideas to create a fun math quiz!