Scan here or visit our website to register

-> https://www.CapitalRoboticsClub.com

Python Mini Project

Python Basics:

After Lesson 9

Brought to you by Robotics Team - VRC 99909A Rising Phoenix

Class Recap

So far we have learned the very basics of Python:

- Variable and data types
- Operators
- Test (if-statement)
- Loop (for/while loop)
- Python Collections - List
- I/O (input/output)

We can start writing code to solve some real problems for us. Please review all prior chapters before attempting this project.

How to write code to solve a problem?

Step 1: Shutdown your laptop and solve the problem yourself first. Note down all the steps in your solution.

Step 2: Write those steps down in **pseudocode**. Pseudocode is really just a simple way of writing programming code in plain English. It uses short sentences to write code for programs before you actually create it in Python syntax.

Pseudocode example:

1) Set an initial flag to be “false”
2) Allow user to input a integer
3) Start with integer 2 and check if that integer can be divided by 2
4) Repeat the above step with 3, 4, … until we find a number that can evenly divide into that integer. At that point, flip the flag to “true” and jump to the next step. If not, continue until we reach that integer.
5) If flag is “false”, display the integer as a prime number.
   If flag is “true”, display the integer as a composite number.

Step 3: Write out your Python code following the steps detailed in pseudocode.

Project Instructions:

1) Get 2 integers from user
2) Find all the factors for each integer and store them in a list
3) Find the GCF (Greatest Common Factor) for these 2 integers and display to console
4) **Challenge question**: Find the LCM (Least Common Multiple) for these 2 integers and display to the console
5) Display if these 2 integers are primary numbers or not.