Lab 0

Introduction to the Mu editor and the Python REPL

Part 1 -Instructor led activities

Introduction to the Mu editor user interface.

'''

Spend some time introducing the students to the Mu editor and then the Python REPL.

Use the REPL - Read, Evaluate, Print, Loop to do some on the fly calculations.

Do some math.

make and use variables

Output with the print() command.

Use the input() command to get some input values.

Use an if statement to control an output.

Demonstrate a while loop

Demonstrate a for loop

Define a new function that accepts arguments and returns the product of the arguments

Create random tuple values and use the "plotter" in Mu to visualize the data

'''

```
import random
import time

while True:
    val1 = random.randrange(15,25)
    val2 = random.randrange(5,15)
    data_tuple = (val1,val2)
    print(data_tuple)
    time.sleep(1)
```

Part 2 - Student investigation

Spend some time exploring the Mu editor and the Python REPL.

- Use the REPL - Read, Evaluate, Print, Loop to do some on the fly calculations.
- Do some math.
- make and use variables
- Output with the print() command.
- Use the input() command to get some input values.
- Use an if statement to control an output.
- Create a while loop in the REPL
- Create a for loop in the REPL
- Define a new function that accepts three numbers as arguments and returns the sum
- In a loop, create random tuple values and use the "plotter" in Mu to visualize the data

Eg. The following code will create random decimal values between 7 and 21 and random integer values between 5 and 15 and then place the values into a tuple which the “plotter” will display if “print”ed.

```
import random
minval = 7
maxval = 21

rand_val1 = minval + (random.random() * (maxval-minval))
rand_val2 = random.randrange(5,15)
data_tuple = (val1,val2)
```

Show your code working in the REPL to your instructor.

Check the function that was created as well as looking at plotter output