

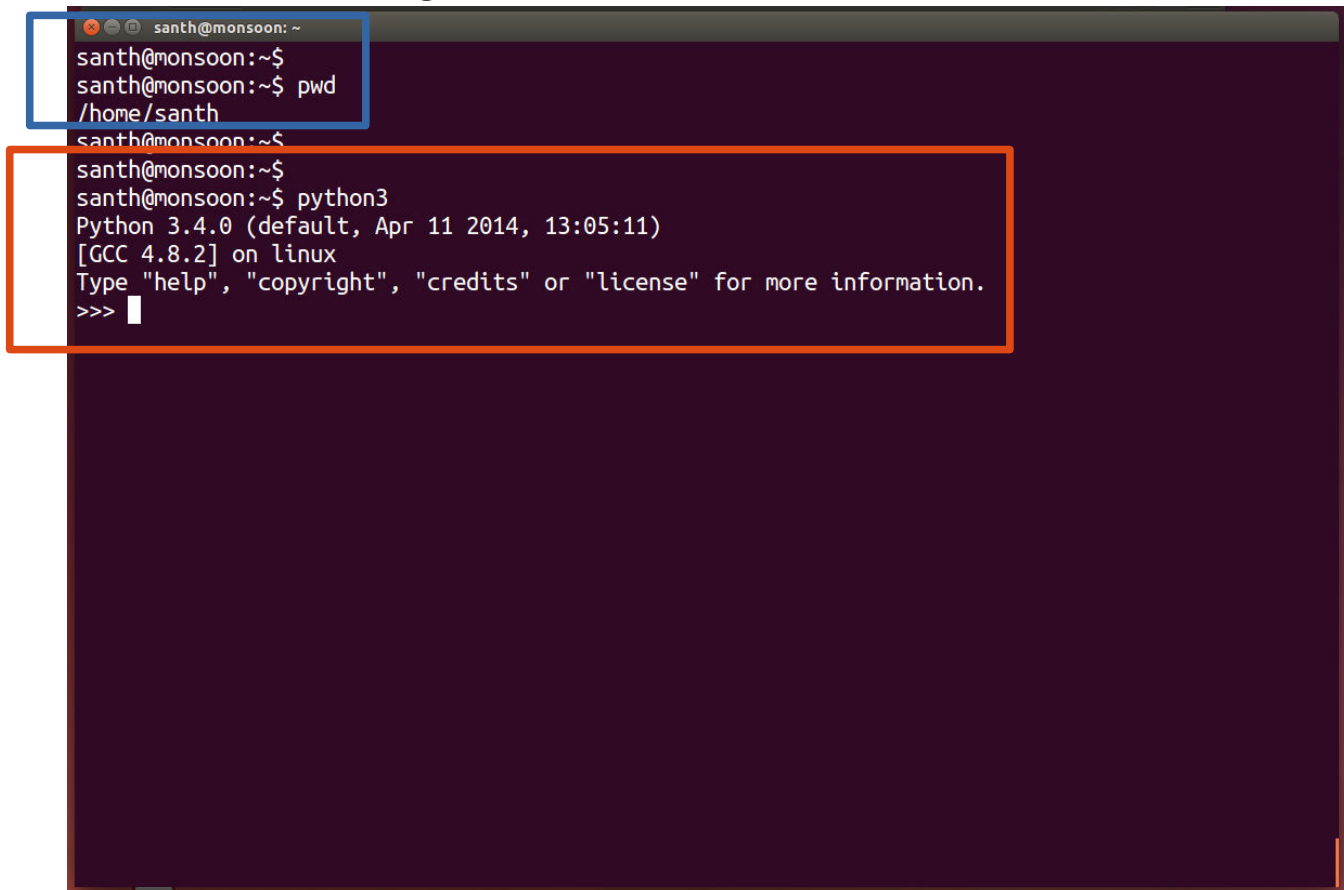
Getting started :

Exercise 0 : Login using the given username and password. Then, open a terminal. Type the following commands.

<code>pwd</code>	This is the command to know your present working directory.
<code>python3</code>	This is the command to start python (version 3) in interactive mode.

(**NOTE :** All blue coloured commands are for the linux shell. Orange coloured commands are for the python shell. They should not be interchanged.)

Result of both the commands given above are shown below here.



```
santh@monsoon:~$ pwd
/home/santh
santh@monsoon:~$ python3
Python 3.4.0 (default, Apr 11 2014, 13:05:11)
[GCC 4.8.2] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

Exercise 1 :

Now that Python3 has started, try doing some simple calculations in Python :

```
>>> 2 + 3
5
>>> 6.3 - 3.1
3.1999999999
```

Instead of numbers, now let us create two variables x and y . We can assign different values to variables x and y and compute $x+y$, x/y etc.

<pre>>>> x=3.1 >>> y=2.4 >>> x+y 5.5 >>> x/y 1.2916666666666667 >>> x**y 15.11012528197161</pre>	<p>These are assignment statements. x is assigned value 3.1 and y is assigned value 2.4.</p> <p>For assigned values of x and y, you can compute $x+y$, $x**y$ etc.</p> <p>If you want to change the value of x and y, just reassign them and compute again.</p>
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Try some more on your own. Once finished, press CTRL - D to quit python.

Exercise 2 :

Now, open an empty file. The command to do it is given below.

The name of the file is `myfirst.py` (you can choose your own name, if you wish)


```
gedit myfirst.py
```

Type in the following program (this program has only one line) :

```
print("Hello World")
```

Now, Save the file.

Quit gedit.

You can quit by clicking on  at top left.

Execute the file with the command:

```
python3 myfirst.py
```

Exercise 3 :

Given that $y = m x + c$, write a program to compute the value of y if $x=2.0$, $m=1.2$ and $c=0.5$.

Here's the program for this exercise.

```
x=2.0
```

```
m=1.2
```

```
c=0.5
```

```
y = m*x + c
print(y)
```

Copy this program to a file, save the file. Execute the file.

Exercise 4 : You can also read in the data by giving input from keyboard.
The program is :

```
m = int( input('Choose a number for m : ') )
x = int( input('Choose a number for x : ') )
c = int( input('Choose a number for c : ') )

y = m * x + c

print ('Result is : ', y)
```

Copy this program to a file, save the file. Execute the file.

NOTE that keyword `int` specifies that the input you give should be integer.
Try giving a real number and it will return an error.

Try this program a few times with different integer input values.

Exercise 5 : Now, if we want to give real numbers as input, the program will be modified as follows :

```
m = float( input('Choose a number for m : ') )
x = float( input('Choose a number for x : ') )
c = float( input('Choose a number for c : ') )

y = m * x + c

print ('Result is : ', y)
```

NOTE the keyword `float`. This requires the input to be a real number (floating point number). Try this modified program a few times with different real numbers as input values. Try giving an integer and see what happens.