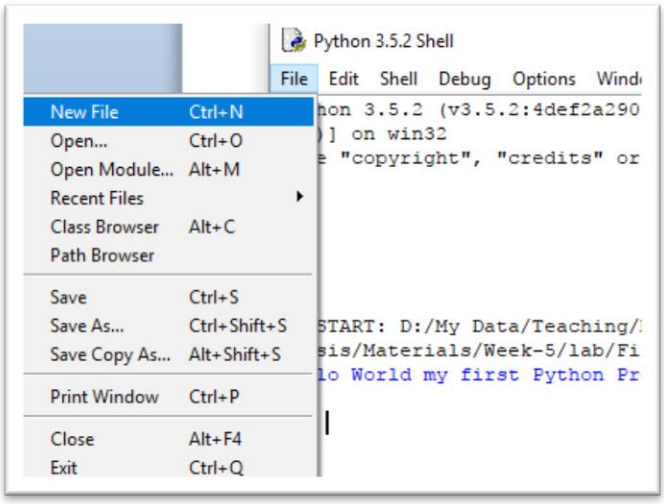
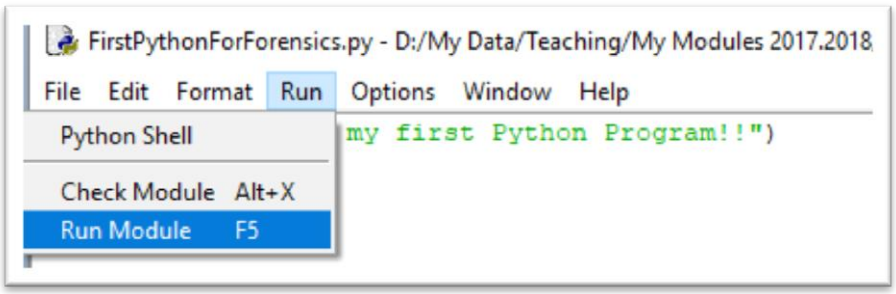
1. Installation:

2. Create a new Python file and save it on your desktop, and call it MyFirstPythonProgram.py as follows:



2. Then add the following code and go to file save; and then to run the code, by going to Run and choose Run Module,

```
print("Hello World my first Python Program!!")
print (2+2)
```



3. Update your code to create the following program:

```
print("Hello, world!")
age = 45
print("You have", 67 - age, "years until retirement")
```

4. Update your programme to read from the user input, as follows:

```
print("Hello, world!")
age = int(input("How old are you? "))
print("You have", 67 - age, "years until retirement")
```

5. Practice with the for loop and range function, as follows, discuss with your tutor if you have any question:

```
for x in range(1, 6):
    print(x, "squared is", x * x)
```

6. Practice using while loop, as follows:

```
number = 1
while number < 200:
    print(number)
    number = number * 2
```

7. Practice with strings, and navigating around strings, as follows:

```
name = "Steve Jobs"
print(name, "starts with", name[0])
```

8. Practice with string functions, as follows:

```
name = "Steve Jobs"
length = len(name)
big_name = str.upper(name)
print(big_name, "has", length, "characters")
```

9. Practice using lists, using the following example:

```
a = ['spam', 'eggs', 100, 1234, 2*2]
print(a[0])
print(a[1])
print(a[0:2])
len(a)
print("-----")
for x in a:
    print(x)
```

10. Practice with methods:

```
def numlist(n):
    """Print a numbers up to n."""
    b = 1
    while b <= n:
        print(b)
        b= b+1

print("started")
numlist(20)
print("Finished")
```

11. Download the sample JSON file with two records inside and the first assignment related python file and run it, go through the code and ask questions; then expand the code to print more information from the JSON object tweet structure.

```
import json

count = 0
with open('Sample-2-Tweets.json') as data_file:
    for row in data_file:
        data = json.loads(row)
        count= count +1
        print("created at: "+data['createdAt']['$date'])
        print("Geo-Location "+str(data['geoLocation']['latitude']))
        print("Tweet Text "+data['text'])
        print("Place Name: "+data['place']['name'])
        print("Place Full Name: "+data['place']['fullName'])
        print(" ..... Next Record .....")

print("Counter "+str(count))
```

12. Experiment with pprint to understand the structure of the tweet JSON Object.

```
import json
from pprint import pprint

count = 0
with open('Sample-2-Tweets.json') as data_file:
    for row in data_file:
        data = json.loads(row)
        count= count +1
        print("created at: "+data['createdAt']['$date'])
        print("Geo-Location "+str(data['geoLocation']['latitude']))
        print("Tweet Text "+data['text'])
        print("Place Name: "+data['place']['name'])
        print("Place Full Name: "+data['place']['fullName'])
        print(" ..... Next Record .....")
        pprint(data)

print("Counter "+str(count))
```