Learn Python

How to use Jupyter Notebook

Basic of Python*

1- My first Program

In [7]:
```python
print("tariq")
print(2+3)
print("i have started learnig now")
```

```
tariq
5
i have started learnig now
```

2 - Oprtators

In [8]:
```python
print(2+1)
print(2/1)
print(2*1)
print(2-4)
print(13%2)
print(2//1)
print(2**4)
#Now try someting new
print (2*(7**2)/2*8-9)
```

```
3
2.0
2
-2
1
2
16
383.0
```

3 - Strings

In [1]:
```python
print('This is my first string')
print("i have started learnig now")
print('''i have started learnig now''')
#Now Practice
print('Whats"s up')
```

```
This is my first string
i have started learnig now
i have started learnig now
Whats"s up
```

4- Comments

In [2]:
```python
print("Asslam O Alkium ") # This is srting
print(2+6+3) # This is calculation
print("Waalikum O Alkium ")
```

```
Asslam O Alkium
11
Waalikum O Alkium
```

5- Variables

In [4]:
```python
#Ruels for assing a variable
# 1 - The variable should contain letter number or underscor
# 2 - Never start from number
# 3 - spaces are not allowed
# 4 - Dont use buily in keywords
# 5 - short and descrptive
# 6 - case sensitivity (always use lowercase)

x = 5
print(x)

y = "We are learning Pythoin"
print(y)
print(x,y)

#type class of varaibles

print(type(x))
print(type(y))

bat = 6
#del bat
print(type(bat),bat)
```

```
5
We are learning Pythoin
5 We are learning Pythoin
<class 'int'>
<class 'str'>
<class 'int'> 6
```

6- Input-Variables

In [5]:
```python
decide_color = 'Red'
print(decide_color)


#simple input function
#decide_color = input('Write your favour color ')
#print(decide_color)

#input name function
# greetings = 'Assalam o Alikum'
# name = input('What is your name ? ')
# print (greetings, name)

#3rd type of input function

age = input('How old are your')
```

```python
name = input('What is your name? ')
greetings = 'Asslam o Alikum'

print(greetings, name, 'You are young')
```

```
Red
How old are your17
What is your name? tariq
Asslam o Alikum tariq You are young
```

7- Conditional-Logic

In [6]:
```python
# logical operators are either true or false or 0 or 1 or yes or no
# equal to                    ==
# not equal to                !=
# less then                   <
# greater then                >
# less then or equal to       <=
# greater then or equal to    >=

#is 4 equal to 4
# print(4==4)

# hareem = 4
# ameera = 1

# print(hareem==ameera)

# #school age requirment

name = 'hareem'
school_req = 4

age = input('what is your child age ? ')
print(school_req == age )
print(type (school_req))
print(type (age))
print('You are eligible')
```

```
what is your child age ? 5
False
<class 'int'>
<class 'str'>
You are eligible
```

8- Type Conversion

In [7]:
```python
# x = 1            #integer
# y = 1.0          #float
# z = 'Tariq'      #string

# #implicit type converstion
# x = x + y
# print(x, 'Type of y ', type(y))

#explicit type conversion
# age = input('Please type your age ')
# #age = int(age)
# print(type(float(age)), age)
```

```python
name = input('Please type your name ')
#age = int(age)
print(type(str(name)), name)
```

```
Please type your name tariq
<class 'str'> tariq
```

09- if else elif

In [8]:
```python
# # Can ali reqiest for National Identity Card
# ali_age = 16
# nic_age = 18
# if ali_age == nic_age:
#     print('You are eligible for nic card')
# else:
#     print('You are not eligible for nic card')

# Primary_Secondarr_Higher
#
age          = input('what is your age? ')
primary_age = 4

if   int(age) == primary_age :
     print('You admission on primary')
elif int(age)  > primary_age :
     print('You admission on secondary')
elif int(age)  <= 2 :
     print('you should enjoy')
else:
     print('You are young')
```

```
what is your age? 2
you should enjoy
```

10 Function

In [11]:
```python
# 1st Method of Function

def print_name():
    print('Tariq')
    print('Tariq')
    print('Tariq')

print_name()

# 2nd Method of function

def print_name1():
    text = 'Tarique'
    print(text)
    print(text)
    print(text)

print_name1()

# 3rd Method of function

def print_name2(text):
 #   text = 'Tarique'
    print(text)
```

```python
        print(text)
        print(text)

print_name2('Tarique')

# 3rd type with if elfi and else

def job_requirment_skills(skills):
    if skills == 'Data Scients':
        print('YOu are eligible for Google Company')
    elif skills == 'Machine Learning':
        print('YOu need to become a data scientist')
    else:
        print('YOu should learn more')

job_requirment_skills('Machine Learning')

# # define a function of future

def future_date(age):
    age = age + 20
    return age
    print(age)

future_predicted_age = future_date(20)
print(future_predicted_age)
```

```
Tariq
Tariq
Tariq
Tarique
Tarique
Tarique
Tarique
Tarique
Tarique
YOu need to become a data scientist
40
```

11 - Loops

In [12]:
```python
#while loops and For Loops
#while loops

x = 0
while (x<5):
    print(x)
    x = x+1

#for loop

for x in range(4,11):
    print(x)

# array

days = ['Mon','Tue','Wed','Thus','Fri','Sat','Sun']

for d in days:
```

```
        if (d == 'Fri'): break  #break means stop before it and continue means skip
        print(d)
```

```
0
1
2
3
4
4
5
6
7
8
9
10
Mon
Tue
Wed
Thus
```

12 -- Import Liabraries

In [13]:
```python
# for printing a PI value

import math
print('The value of PI ', math.pi)


import statistics

x = [10,20,30,40,50]

print('The means is [10,20,30,40,50] is ', statistics.mean(x))
```

```
The value of PI  3.141592653589793
The means is [10,20,30,40,50] is  30
```

13-- Trouble Shooting

In [14]:
```python
#trouble shooting is easy

#systax err
#
print(25/0)
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_5092\451233489.py in <module>
      3 #systax err
      4 #
----> 5 print(25/0)

ZeroDivisionError: division by zero
```