Learn python with the help of Baba Ammar Videos.

Use of Jupyter Notebook.

Basics of Python with Jupyter Notebook.

1- My First python program using jupyter notebook.

In [1]:
```
print(5+8)
print("Hello Pakistan")
print("Quaid-i-Azam University Islamabad")
```

```
13
Hello Pakistan
Quaid-i-Azam University Islamabad
```

2_Operators

In [2]:
```
#print(2+5)
#print(9-7)
#print(8*2)
#print(9/3)
#print(9//3)
#print(12%5)
#print(2**5)

print(3**2+5-3/2*7)
```

```
3.5
```

3_strings

In [3]:
```
print("Hello Pakistan")
print("Quaid-e-Azam University Islamabad")
print("Society for promotion of science")
```

```
Hello Pakistan
Quaid-e-Azam University Islamabad
Society for promotion of science
```

4_comments

In [4]:
```
print("What are you doing?")
# print("I am learning python fourth chapter")
print(8+4)
```

```
What are you doing?
```

```
12
```

5_variables

In [5]:

```
#variables: objects of differnet kinds
x=2
print(x)
y="We are learning fifth chapter of python"
print(y)
x=x+6
print(x)


#type/class of variables:
type(x)
print(type(x))
print(type(y))

fruit_basket=11
fruit_basket="Apples"
#del fruit_basket
print(type(fruit_basket))
print(fruit_basket)
```

```
2
We are learning fifth chapter of python
8
<class 'int'>
<class 'str'>
<class 'str'>
Apples
```

6_input_variables

In [6]:

```
# print(fruit_basket)

#input of second stage function

# name=input("what is your name? ")
# greetings="Welcome"
# print(greetings,name)

#another way of 2nd stage function

# name=input("what is your name? ")
# print("Welcome",name)

#3rd stage of input function

name=input("What is your name? ")
age=input ("How old you are? ")
greetings="Welcome"
print(greetings,name,",You are still looking handsome.")
```

```
What is your name? Yasir
How old you are? 10
Welcome Yasir ,You are still looking handsome.
```

7_Conditional_Operators

In [7]:
```
# print(4==4)
# print(4!=4)
# print(4>3)
# print(3>5)
# print(5>=1)
# print(4<=5)

#application of age operators
# nasir_age=15
# age_at_college=17
# print(nasir_age==age_at_college)


#input operators and logicals
age_at_college=17
nasir_age=input("How old are you? ")
nasir_age=int(nasir_age)
print(type(nasir_age))
print(nasir_age==age_at_college)
```

```
How old are you? 10
<class 'int'>
False
```

8_type_Conversion

In [8]:
```
# x=7
# y=5.2
# z="Welcome"
# print(type(x))
# print(type(y))
# print(type(z))

# #Implicit type of conversion
# x=x*y
# print(x,type(x))

#explicit type of conversion
# age=input("What is your age? ")
# # age=int(age)
# print(age,type(int(age)))

#name
name=input("What is your name? ")
# age=int(age)
print(name,type(str(name)))
```

```
What is your name? Yasir
Yasir <class 'str'>
```

9_if_elif_else

In [9]:
```
nasir_age=17
required_age_at_college=15
```

```
#question:  can nasir go to college?

if nasir_age==required_age_at_college:
        print("Congratulations! Nasir join the College.")
elif nasir_age > required_age_at_college:
        print("Nasir should join the college.")
elif nasir_age<=13:
    print("you should take care of nasir he is still a school student.")

else:
    print("Nasir can not join to college")
```

```
Nasir should join the college.
```

10_functions

In [10]:

```
#definig a function with if,elif and else statements

# def university_calculator(age):
#     if age==18:
#         print("nasir can join the university")
#     elif age > 18:
#         print("nasir should go to university")
#     else:
#         print("nasir is still in university")
# university_calculator(20)

#5
#Defining a function of future
def future_age(age):
    new_age=age+20
    return new_age
    print(new_age)
future_predicted_age=future_age(12)
print(future_predicted_age)
```

```
32
```

11_Loops

In [11]:

```
#While and for loops
#while loop

# x=0
# while (x<=10):
#     print(x)
#     x=x+1

#for loops

# for x in range (5,15):
#     print(x)

#Arrays

days=["Mon","Tue","Wed","Thu","Fri","Sat","Sun"]
for d in days:
    #if(d=="Fri"):break
```

```
    if(d=="Fri"):continue
    print(d)
```

```
Mon
Tue
Wed
Thu
Sat
Sun
```

12_Import_Libraries

In [12]:

```
#if you want to print value of pi.

# import math
# print("the value of pi is", math.pi)

import statistics
x=[10,250,350,450]
print(statistics.mean(x))

#numpy, pandas
```

```
265
```

13_Troubleshooting

In [13]:

```
#Syntax error

# print(we are learning python)

#mathematical error or run time error
# print(25/0)

# #string error
# name="yasir"
# print("hello name")

name="yasir"
print("Welcome"+name)
```

```
Welcomeyasir
```

14_Conclusion

In [14]:

```
#Installation
#Command Line
#Vscode ad python
#First line of code
#operators
#commands
#variables
#type conversion
#if,elif,else
#functions
#loops (while and for)
```

```
#python libraries
#troubleshouting
```