Python Ka Chilla With #Baba Aammar

How To Use Jupyter Note Book

Basic of Python

In [ ]:
```
#My Program 1st Program
print (2*9)
print("Hello World")
print("Hy Zeeshan!")
```

In [3]:
```
#program 2nd
print(2+9)
print(2-9)
print(2*9)
print(2/9)
print(2**9)
print(2//9)
print(2%9)
print(2**0.5)
print(2**0.25)
#PEMDAS
print(2+9*9/9-9)
print(2**9//9%9)
```

```
11
-7
18
0.2222222222222222
512
0
2
1.4142135623730951
1.189207115002721
2.0
2
```

In [4]:
```
#program 3rd
##String
print("Hello World")
print("Hello"+"Zeeshan")
print("Hello"*3)
print("Hello"+"World"*3)
print("Hello"*3+"World")
print("Hello"*3+"World"*3)
print("Hello"*3+"World"*3+"!")
```

```
Hello World
HelloZeeshan
HelloHelloHello
HelloWorldWorldWorld
HelloHelloHelloWorld
```

```
HelloHelloHelloWorldWorldWorld
HelloHelloHelloWorldWorldWorld!
```

In [5]:

```
#program 4th
#Comment In Python
# Commenting is done using #
# Commenting is done using """ """
# Ctrl + /
#program 5th
#Variables in Python
x = 10
y = 20
z = x+y
print(z)
```

```
30
```

In [6]:

```
# #type of variable
# print(type(x))
# print(type(y))

# #Rules to assign variable
# #1. Variable name must start with a letter or an underscore
# #2. Variable name is case sensitive
# #3. Variable name should not be a Python keyword
# #4. Variable name should be meaningful and descriptive

fruit = ('Apple',"Orange","Banana")
print(type(fruit))
print(fruit)
```

```
<class 'tuple'>
('Apple', 'Orange', 'Banana')
```

In [7]:

```
#program 6th
#Input in Python

fruit_basket =input("What is your Favourite ? ")
print(fruit_basket)

#input Function with 2nd stage
name = input("What is your name ? ")
greeting = "Hello"
print(greeting, name)

#another way to input
name = input("What is your name ? ")
print("Hello", name)

#another way to input
name = input("What is your name ? ")
age = input("What is your age ? ")
greeting = "Hello"
print(greeting, name, "you are", age)
```

```
What is your Favourite ? apple
apple
What is your name ? shani
```

```
Hello shani
What is your name ? shani
Hello shani
What is your name ? 25
What is your age ? 25
Hello 25 you are 25
```

In [8]:

```
#Program 7th
# Condition Logical Operation in Python
# equal to ==
# not equal to !=
# greater than >
# less than <
# greater than or equal to >=
# less than or equal to <=
# and
# or
# not
print(1==1)
print(1==2)
print(1!=2)
print(1>2)
print(1<2)
print(1>=2)
print(1<=2)
print(1==1 and 2==2)
print(1==1 or 2==2)
print(not(1==1))
print(not(1==2))

# Application of Logical Operator
imtanan = 4
age_at_school = 5
print(imtanan==age_at_school)

#input and Logical Operator
age_at_school = 5
imtanan = int(input("What is your age ? ")) #input function
print(imtanan==age_at_school) #Logical Operator
```

```
True
False
True
False
True
False
True
True
True
False
True
False
What is your age ? 25
False
```

In [9]:

```
#Program 8th
#Type Conversion in Python
# int()
# float()
```

```
# str()
# bool()
x = 10   #int
y = 20.5  #float
z = "Hello" #string
#implicit type conversion
x = x*y
print(type(x))

# explicit type conversion
age = float(input("What is your age ? "))
print(type(age))
```

```
<class 'float'>
What is your age ? 25
<class 'float'>
```

In [10]:

```
# Program 9th
# IF Else Elsif Else in Python
# if condition:
age_at_school = 5
imtanan = 6
# if condition:
if imtanan==age_at_school:
    print("You are in school")
elif imtanan>age_at_school:
    print("Cong! You are in school")
else:
    print("You are not in school")
```

```
Cong! You are in school
```

In [11]:

```
# Program 10th
# Functions in Python
# def function_name(parameter):
# def print_shani():
#     text ="I love my brother"
#     print(text)
#     print(text)
#     print(text)

#     print_shani()

# #2nd way to write function
def print_shani_2(text):
    print(text)
    print(text)
    print(text)
    print_shani_2("I love my brother")

# #3rd way to write function
def print_shani_3(text):
    print(text)
    print(text)
    print(text)
    print_shani_3("I love my brother")
```

In [12]:

```
#Program 11th
# defining a function with if else function
def  school_calculator(age_at_school,imtanan):
    if imtanan==age_at_school:
        print("You are in school")
    elif imtanan>age_at_school:
        print("Cong! You are in school")
    else:
        print("You are not in school")
school_calculator(4,2)


# Defining a function of Future
def future_age(age,year):
    new_age= age+20
    return new_age

future_prediction = future_age(14,2020)
print(future_prediction)
```

```
You are not in school
34
```

In [13]:

```
# Program 12th
# Loop in Python
# for loop
for i in range(150):
    print(i)

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

# Array in Python
fruits = ["Apple","Orange","Banana"]
for fruit in fruits:
    print(fruit)
```

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0
1
2
3
4
5
6
7
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9
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11
12
13
14
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16
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140
141
142
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144
145
146
147
148
149
0
1
2
3
4
5
6
7
8
9
Apple
Orange
Banana
```

In [14]:

```python
#Program 13th

# import Library in Python
import math
import statistics
print(math.sqrt(16))
print(math.pi)
print(math.sin(math.pi/2))


x=(150,250,350,450,550)
print(statistics.mean(x))
print(statistics.median(x))
print(statistics.mode(x))
print(statistics.variance(x))
print(statistics.stdev(x))
```

```
4.0
3.141592653589793
1.0
350
350
150
25000
158.11388300841898
```

In [ ]:

```python
#program 14th
# Troubleshooting in Python
print(we are learning paython) #SyntaxError: invalid syntax
print("we are learning paython") #SyntaxError: invalid syntax
print(25/0) #ZeroDivisionError: division by
#name = "Zeeshan"
print("Hello name"  + name)
```

```
#information about error
print(name)
```