Python ka Chilla with #baba_aammar

How to use Jupyter Note Book

Basics of Python

01- My first program

In [1]:
```python
print(2+3)
print("Hello World")
print("We are learning python with Aammar")
```

```
5
Hello World
We are learning python with Aammar
```

02- Operators

In [2]:
```python
print(2+1)
print(3-1)
print(6/2)
print(2*3)
print(13%2)
print(6//2)
print(2**3)

print(3**2/2*3/3+6-4)
```

```
3
2
3.0
6
1
3
8
6.5
```

PEMDAS Parenthesis Exponents Multipilication Division Addition Substraction left to right sequance for M D & A S

03- Strings

In [3]:
```python
print("Hello World")
print("We are learning python with Aammar")
print('test for single quotes')
print("test for double quotes")
print('''test for triple quotes''')

print("what's up?")
```

```
Hello World
```

```
We are learning python with Aammar
test for single quotes
test for double quotes
test for triple quotes
what's up?
```

04- Comments

In [4]:
```python
print("How are you?")                    #press (Ctrl+/) to comment out
print("We are learning python Aammar")   #print a sting
print(2+6)
```

```
How are you?
We are learning python Aammar
8
```

05- Variables

In [5]:
```python
fruit_basket = 8
fruit_basket= "Mangoes"
print(type(fruit_basket))
print(fruit_basket)
```

```
<class 'str'>
Mangoes
```

06- Input Variables

In [6]:
```python
fruit_basket= "Mangoes"
print(fruit_basket)

#input function
fruit_basket= input("what is your favourite fruit?")
print(fruit_basket)

#input function of second stage
name= input("What is your name?")
greetings="Hello!"
print(greetings, name)

#another way of stage 2 input function
name= input("What is your name?")
print("Hello!",name)

#3rd stage input function
name=input("What is your name")
age= input("How old are you? ")
Greetings="Hello!"

print(Greetings, name, ", You are still young")
```

```
Mangoes
what is your favourite fruit?apple
apple
What is your name?Hussain
Hello! Hussain
```

```
What is your name?Hussain
Hello! Hussain
What is your nameHussain
How old are you? 18
Hello! Hussain , You are still young
```

06- Conditional Logics

In [7]:
```python
# logical operators are either true or false , yes or no , 0 or 1
# equal to                              =
# not equal to                          !=
# less than                             <
# greater than                          >
# less than and equal to                <=
# greater than and equal to             >=

# is 4 equal to 4?
print(4==4)
print(4!=4)
print(3<6)
print(3>6)
print(3<=5)
print(5>=4)

# application of logical operators
# hammad_age=4
# age_at_School=5
# print(hammad_age==age_at_School)

# input function and logical operator
age_at_School=5
hammad_age= input("How old is hammad?5")   #input function
#hammad_age=int(hammad_age)
print(type(hammad_age))
print(hammad_age==age_at_School)         #logical operator
```

```
True
False
True
False
True
True
How old is hammad?55
<class 'str'>
False
```

08- Type Conversion

In [8]:
```python
x= 10                  #integer
y= 10.2                #float
z= "Hello!"            #string

#implicit type conversion
x= x+y
print(x,"type of x is:", type(x))

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

```python
age=int(age)
print(age, type(int(age)))

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

```
20.2 type of x is: <class 'float'>
What is your age?18
18 <class 'int'>
What is your name?18
18 <class 'str'>
```

09- If, elif and else

In [9]:
```python
hammad_age=2
required_age_at_school=5
# question: can hammad go to school

if hammad_age==required_age_at_school:
    print("Congratulation! Hammad can join the school.")
elif hammad_age > required_age_at_school:
    print("Hammad should join higher secondary school")
elif hammad_age <=2:
    print("You should take care of Hammad he is still a baby")

else:
    print("Hammad can not go to school")
```

```
You should take care of Hammad he is still a baby
```

10- Functions

In [10]:
```python
# definig a functions
# 1
from typing import Text


def print_condenics():
    print(" We are learning with Aammar")
    print(" We are learning with Aammar")
    print(" We are learning with Aammar")

print_condenics()

# 2
def print_codenics():
    text = "We are learning with Aammar in codenics youtube channel"
    print(text)
    print(text)
    print(text)

print_codenics()

# 3
def print_codenics(text):
    print(text)
    print(text)
```

```python
        print(text)

print_codenics("We are learning with Aammar in codenics youtube channel")

# defining a fuction with if, elif and alse statements

def school_calculator(age):
    if age==5:
        print("Hammad can join the school")
    elif age>5:
        print("Hammad should go to higher school")
    else:
        print("Hammad is still a baby")

school_calculator(2)


# defining a function of future

def future_age(age):
    new_age=age+20
    return new_age
    print(new_age)

future_predicted_age=future_age(18)
print(future_predicted_age)
```

```
 We are learning with Aammar
 We are learning with Aammar
 We are learning with Aammar
We are learning with Aammar in codenics youtube channel
We are learning with Aammar in codenics youtube channel
We are learning with Aammar in codenics youtube channel
We are learning with Aammar in codenics youtube channel
We are learning with Aammar in codenics youtube channel
We are learning with Aammar in codenics youtube channel
Hammad is still a baby
38
```

11- Loops

In [11]:
```python
# While and For loops
#while loops

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

#for loops

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

# array
days = ["Mon", "Tue","Wed","Thu","Fri","Sat","Sun"]

for d in days:
    if (d=="Fri"): break        # loop stops
```

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

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

12- Import libraries

In [12]:
```python
# if you want to print the value of pi

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

import statistics

x=[150, 250,350,450]

print(statistics. mean(x))
```

```
The value of pi is 3.141592653589793
300
```

13- Trouble Shooting

In [13]:
```python
#print(We are learning python with Aammar)       #without inverted commas is called syn

#print(25/0)                                      #Runtime error or zero divison error


name= "Aammar"
print("Hello name ")                             #Symentic error
print("Hello", name)
```

```
Hello name
Hello Aammar
```