Python ka Chilla with #baba_aammar

How to use Jupyter Notebook

Python Basic

01- My first Program

In [1]:
```
 print(2+3)
print('Hello World')
print('We are learing python with Aammar baba')
```

```
5
Hello World
We are learing python with Aammar baba
```

02- operators

In [2]:
```
print(2 + 4)
print(5 - 8)
print(7 * 2)
print(9 / 2)
print(9 // 2)  # 4
# // it works like *Floor Division* in python
# x // y == math.floo(x/y)

print(-11 // 4)  #-3
print(3**2/2*3/5-2+9)
```

```
6
-3
14
4.5
4
-3
9.7
```

PEMDAS, Parenthesis Exponents Multiplication Division Addition Subtraction, from left to right for M D and A S

03- Strings

In [3]:
```
print('Hello world')
print('Learning python ka Chilla with aammar baba')
print('Single qoute strings')
print("double qoute strings")
print("What's up?")
```

```
Hello world
Learning python ka Chilla with aammar baba
Single qoute strings
double qoute strings
What's up?
```

04- Comments in python

shortcut for comment out is: **ctrl + /**

In [4]:
```
print('How are you') # press these to comment out, ctrl + /
print('We are Learning Python ka Chilla with aammar baba') # print out the string

print(3+8) #print the addition of two numbers
```

```
How are you
We are Learning Python ka Chilla with aammar baba
11
```

05- Variables

Rules to assign variable names:

1- *variable name should contain letters, numbers and underscore*

2- *Do not start with numbers.*

3- *spaces are not allowed*

4- *Do not use keywords used in functions (break, mean, media, test, continue etc)*

5- *short and descriptive*

6- *case sensitive*

In [15]:
```
fruit_basket = 8
fruit_basket = 'Banana' #it overrides the previous value
print(type(fruit_basket)) # to find the type/class of variable
print(fruit_basket)
```

```
<class 'str'>
Banana
```

06- Input Variable

In [17]:
```
# simple input
fruit_basket = input('What is your favourit fruit: ')
print(fruit_basket)
```

```
What is your favourit fruit: Mangoes
Mangoes
```

In [18]:
```
# input variable 2nd stage
name = input('Enter your name:')
greeting = 'Hello'
print(greeting,name)
```

```
Enter your name:Abdur Rehman
Hello Abdur Rehman
```

In [21]:
```
# input variable 3rd stage
name = input('Enter your name:')
```

```
age = input('Enter your age:')
greeting = "Hello"
print(greeting,name, ',you are still young')
```

```
Enter your name:Rehman
Enter your age:22
Hello Rehman ,you are still young
```

07- Conditional Logics

In [24]:

```
# check if 4 is equal to 4
print(4==4)
print(4 != 4)
print(4 > 7)
```

```
True
False
False
```

In [27]:

```
 # input variables with conditional logics
age_at_school = 5
current_age = int(input('Enter your age:'))
print(age_at_school == current_age)  # logical operator
```

```
Enter your age:5
True
```

08- Type Conversion

In [31]:

```
# implicit type conversion
x = 4
y = 7.2
x = x + y
print(type(x))  # now x become floate

# explicit type conversion
age = input('Enter your age:')
print(type(age))
age = int(age)
print(type(age))
```

```
<class 'float'>
Enter your age:12
<class 'str'>
<class 'int'>
```

09- if, elif, else statement

In [37]:

```
hamad_age = 7
age_required_at_school = 5

# question is: Can Hamad join the school

if hamad_age == age_required_at_school:
    print('Hamad can join the school')
elif hamad_age > age_required_at_school:
    print('Hamad should join the higher school')
elif hamad_age <= 2:
```

```
    print('Hamad can not join the school, He is still kid')
else:
    print('Hamad will be soon ready to join the school')
```

```
Hamad can not join the school, He is still kid
```

10- Functions

In [38]:

```
# 1: simple function
def print_codanics():
    print('We are learning with Aammar baba')
    print('We are learning with Aammar baba')
    print('We are learning with Aammar baba')
print_codanics()
```

```
We are learning with Aammar baba
We are learning with Aammar baba
We are learning with Aammar baba
```

In [40]:

```
# 2: storing text in variable and use multiple time

def print_codanics():
    text = 'We are learning with Aammar baba'
    print(text)
    print(text)
    print(text)
print_codanics()
```

```
We are learning with Aammar baba
We are learning with Aammar baba
We are learning with Aammar baba
```

In [41]:

```
# 3: passing value as an argument
def print_codanics(text):
    print(text)
    print(text)
print_codanics('We are learning with Aammar baba')
```

```
We are learning with Aammar baba
We are learning with Aammar baba
```

In [45]:

```
# 4:  return value from function
def print_codanics(age):
    new_age = age + 10
    return new_age
predicating_future_function = print_codanics(13) # pass the called function into var
print(predicating_future_function)
```

```
23
```

11- Loops (while, for_loop)

In [1]:

```
# while_loop
x = 1
while(x <= 5):
    print(x)
    x += 1
```

```
1
2
3
4
5
```

In [4]:

```
# for_loops

# for range loop

#by default it start from zero and jump one number,
#but you can change these two numbers

for number in range(5):
    print(number)
  # loop start from 5 upto 20 and jump 2 step
for number in range(5,20, 2):
    print(number)
```

```
0
1
2
3
4
5
7
9
11
13
15
17
19
```

In [7]:

```
# iterate array through for_loop
name = ['Ali', 'Khan', 'Baba', 'Chilla']

for i in name:
#     if i =='Khan': break
    if i == 'Khan': continue
    print(i)
```

```
Ali
Baba
Chilla
```

12- Import Libraries

In [11]:

```
# import math library, to use buil-in maths function
import math
# pi value is already defined in math lib
print('The value of PI is: ', math.pi)

# import statistic library to use its basic funtions
import statistics
values = [100,150,710, 22]
print("The mean of values array is: ", statistics.mean(values))
```

```
The value of PI is:  3.141592653589793
The mean of values array is:  245.5
```

13- Trouble Shooting

In [15]:
```
# print(We are learing python) #syntax error
# print(20 / 0)  # runtime erro

name = "Rehman"
print('Hello, name') # but we want value inside name, not name itself
print('Hello', name)
```

```
Hello, name
Hello Rehman
```

We have completed the Jupyter Notebook

Python ka Chilla (Machine Learning) with #Aammar Baba

Abdur Rehman