Python Ka Chilla with baba Ammar

Basic of Python

01- My first Program

In [1]:
```
print(2+3)
print("Hello world")
print("We are learning python with baba ammar")
```

```
5
Hello world
We are learning python with baba ammar
```

2- Operators

In [2]:
```
print(2+2)
print(13-5)
print(4*2)
print(6/2)
print(14//7)
print(8%3)
print(2**3)
print(2**3/5*3-5+4)

#PEMDAS

# Paranthesis Exponent Multiply devide Addition Subtraction
```

```
4
8
8
3.0
2
2
8
3.8000000000000007
```

3 string

In [3]:
```
print("hello world")
print("We are learning with ammar")
print('Test for single quotes')
print("Test for double quotes")
print('Test for triple quotes')
print("whats'up")
```

```
hello world
We are learning with ammar
Test for single quotes
Test for double quotes
Test for triple quotes
whats'up
```

4 comment

In [4]:
```
print ( "How are you ?" )        #press these to comment in/out  (Ctr L+/)
print("We are learning Python with Ammar") #print a string

print (2+6) # print operators function with numbers
```

```
How are you ?
We are learning Python with Ammar
8
```

5-Variable

In [5]:
```
# VariabLes : obJects  containing specific vaLues
x = 5 #numeric or integer variabLe
print(x)

y="We are learning Python with Ammar" #string vorriab1e
print(y)

x=x+10 #or x=15
print(x)

#type or class of variable
type(x)
print(type(x))

print(type(y))

#print type_cLass

#Ru Les to assign a variabLe
# 1- The variabLe shouLd containt Leters, numbers or underscores
# 2 - Do not start with numbers
# J - Spaces are not aLLowed
# 4 - Do not use Keywords used in function (break, mean, median, test etc. )
# 5 - Short and descriptive
# 6 - Case sensitivity (Lowercase, uppercase Letters. Lowencase shouLd be used)

fruit_basket=8
fruit_basket=15
print(type(fruit_basket))
print(fruit_basket)
```

```
5
We are learning Python with Ammar
15
<class 'int'>
<class 'str'>
<class 'int'>
15
```

6-input variable

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

#input function simpLe
fruit_basket=input("What is your favorite fruit? ")
print(fruit_basket)
```

```
#input function of 2nd stage
# name = input(”that is your name? “) # greetings = "HeLLo!"
# print(greetsings, 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 last name? ")
age = input("How old are you? ")
greetings="Hello!"

print(greetings, name, 'You are still young')
# input_ammarr You are stiLL young
```

```
Mangoes
What is your favorite fruit? Mango
Mango
What is your name? Arham
Hello! Arham
What is your last name? Adeel
How old are you? 24
Hello! Adeel You are still young
```

7 conditional logic

In [7]:

```
#LogicaL operators are either “true or faLse” or “yes or no” or “0 or 1”
#equaL to                      ==
# not equaL to                !=
# Less than                    <
#It greater than               >
# Less than and equaL to      <=
# greater than and equaL to    >=

#is  4 equo L to 4?
print(4==4)
print(4!=4)
print(4>3)
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 operator and LogicaLs
age_at_school=5
hammad_age=input("How old is hammad? ") #input jFUnction
hammad_age=int(hammad_age)

print(type(hammad_age))
print(hammad_age==age_at_school) #1ogico1 operoror
```

```
True
False
True
True
True
```

```
True
False
How old is hammad? 24
<class 'int'>
False
```

8-type conversion

In [8]:

```
# x=10     #integer
# y= 10.2   fLoat
# z = "HeLLo"  #string


# impLicit type conversion

# print(x,  "Type of x i s : ",  type (x))

#ExpLicit  type conversion
age = input("What's your age? ")
# age = int(age)
print(age, type(int(age)))

#nane
name=input("What 1s your name ? ")
print ( name, type( str (name) ) )
```

```
What's your age? 24
24 <class 'int'>
What 1s your name ? Arham
Arham <class 'str'>
```

IF Else Elif

In [9]:

```
hammad_age = 1
required_age_at_school = 5
# question : can hammad go to schoo L ?

if hammad_age==required_age_at_school:
    print("Congratulations! 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 Function

In [10]:

```
# defning a function
# 1
#from typing imrport Text

# def print codanics() :
    #print("We are learning with Ammar ")
    #print("We are learning with Ammar ")
    #print("We are learning with Ammar ")

# print codanics()
```

```
def print_codanics():
    text = "We are learning with Ammar"
    print(text)
    print(text)
    print(text)
print_codanics()

#defining a function with if elif or else statement

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)

# deftining a function of future
def future_age(age):
              new_age=age+20
              return new_age

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

```
We are learning with Ammar
We are learning with Ammar
We are learning with Ammar
Hammad is still a baby
38
```

11 loops

In [11]:

```
#uhiLe and For Loops

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

#for Loop

for x in range(4,11):
    print(x)
# arnay
days = ["Mon", "Tue", "Wed", "Thu", "Fri", "Sat", "Sun"]

for d in days:
    #if (d == "Fri"):
        #break           #Loop stop
    if  (d== "Fri") :
        continue #Skips d
    print(d)
```

```
4
5
```

```
6
7
8
9
10
Mon
Tue
Wed
Thu
Sat
Sun
```

12 Import Libraries

In [12]:

```python
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- TroubleShootiong

In [13]:

```python
# print(we are Learnning python with Ammar) Its Syntax error

# print(25/0) # runt time enror

name = "Ammar"
print("Hello", name)

#troubLeshooting is easy
```

```
Hello Ammar
```

In [ ]:

```python

```