python ka chilla with_baba Ammar

How to use jupyter notebook

Basic of python

01. My first program

In [1]:
```
print(2+3)
print("Hello world")
print("we are learning python with Ammar")
```

```
5
Hello world
we are learning python with Ammar
```

02.operators

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

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

```
5
1
3.0
1
6
3
8
6.5
```

- PEMDAS parenthesis , Exponents.multiply,Divide, Addition,subtraction left to right for M D ,A S*

03.strings

In [3]:
```
print("Hello world")
print("we are learning python with Ammar")
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 Ammar
```

```
Test for single quotes
test for double quotes
test for triple quotes
what's up
```

04.comments in python

The shortkey of comments is **ctrl + /**

In [4]:

```
print("How are you?") # press ctrl+ / to comment out
print("We are leaning python with Ammar") # print a string
print(20+4) # print operators function with numbers
```

```
How are you?
We are leaning python with Ammar
24
```

05.variables in python

In [5]:

```
fruit_basket=8
fruit_basket= "Mango"
print(type(fruit_basket))
print(fruit_basket)
```

```
<class 'str'>
Mango
```

variables! objects containg specific value x=5 # numeric and integer value print(x)

y= "we are learning python with Ammar" # string variable print(y)

x=x+10 print(x)

Types / class of variables type(x) print(type(x))

print(type(y))

print_type-class

```
    # Rules to assign a variable
```

1 The varible should contain letters, numbers,or underscore 2 Donot start with number 3 Space are not allowed 4 Donot use keywords used in functions(break,mean,media,test,etc) 5 Short and descriptive case senstivity(Uppercase, lowercase, recomend to use lowercase)

fruit_basket="Mangoes" print(type(fruit_basket)) print(fruit_basket)**

06.input_variables in python

In [6]:

```
name=input(" What is your name? ")
age=input("How old are you? ")
greetings="Hello!"
print(greetings,name,", you are still young")
```

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

fruit_basket ="Mangoes"

print(fruit_basket)

input function simple

input function of 2nd stage name=input("What is your name? ") greetings="Hello!"
print(greetings,name)

Another way of input function of 2nd stage)

3rd function of input function

07.conditional_logics in python

In [7]:

```
age_at_school=5
Hammad_age=input("How old is Hammad? ") #input function
Hammad_age=int(Hammad_age)
print(type(Hammad_age))
print(Hammad_age==age_at_school) # logical operator
```

```
How old is Hammad? 18
<class 'int'>
False
```

Logical operators are either "true or false", "yes or no" or "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(4>3) 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

08.type_conversion in python

In [8]:

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

```
What is your namr? Ammar
Ammar <class 'str'>
```

 # x=10 # integer y=10.2 # float

z="Hello!" # string

print(type(z))

x= x*y print(type(x)) from tkinter import Y

Implicit type conversion x = x+y print(x,"Type of x is: ", type(x))

Expliciit type conversion

age= input("What is your age? ") age=int(age) print(type(int(age)))

age=input("What is your age? ") print(age, type(float(age)))

name

09 .if_else_elif in python

In [9]:
```
hammad_age =15
required_age_at_school =5
#question: can hammad join the school?
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 shoule care of Hammad, he is still a baby")


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

```
Hammad should join higher secondary school
```

10 . functions in python

In [10]:
```
def future_age(age):
    new_age=age+20
    return new_age
    print(new_age)

future_predicted_age=future_age(5)
print(future_predicted_age)
```

```
25
```

defining a function 1 def print_codanics(): print("We are learning with Ammmar") print("We are learning with Ammmar") print("We are learning with Ammmar")

print_codanics()

2 def print_codanics(): text= "We are learning python with Ammar in codanics ytube channel" print(text) print(text) print(text)

print_codanics()

3

def print_codanics(text):\ print(text) print(text) print(text)

print_codanics("We are laerning python with Ammar in codanics yttube channel")

defining a function with if, elif and else 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(15)

School_calculator (2) (defining a functioo of future)

11 . loops in python

In [11]:
```
days =["Mon","Tues","Wed","Thr","Fri","Sat","Sun"]
for d in days:
    # if(d=="Fri"):break # loops stop
    if(d=="Fri"):continue # skip d
    print(d)
```

```
Mon
Tues
Wed
Thr
Sat
Sun
```

while and for loops while loop

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

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

Array

12 . import_libraries in python

In [12]:
```
import statistics
x=[150,250,350,450]
print(statistics.mean(x))
```

```
300
```

if you want to print the value of pi

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

13 . trouble-shooting in python

In [14]:
```
name = "Ammar"

print("Hello" ,name)
```

```
Hello Ammar
```

print(We are learning python with Ammar)# syntaxError print("We are learning python with Ammar")

print(25/0) # runtime error(mathematics error is called runtime error)