

Python ka Chilla with baba_aamar

How to use Jupyter Note book

Our basics of Python

01- My first program

```
In [1]: print(2+3)
        print("Hello_World")
        print("we are learning python with aamar")
```

```
5
Hello_World
we are learning python with aamar
```

02- operators

```
In [2]: print(2+3)
        print(3-1)
        print(5*4)
        print(10/4)
        print(5%4)
        print(10//4)
        print(4**5)

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

```
5
2
20
2.5
1
2
1024
-1.75
```

PEMDAS prentesis exponents multiply didvide addition subtraction left to right sequence for M D & A S

03- strings

```
In [3]: print('we are learning python with aamar') #press ctrl+/to comment statement
        print("hello world")
        print('test for single quotes')
        print("test for double quotes")
        print(''''test for triple quotes''')
        print("What's up")
```

```
we are learning python with aamar
hello world
test for single quotes
test for double quotes
test for triple quotes
What's up
```

04- comments in python

the shortcut key to do comment is **ctrl+/****

```
In [4]: print('we are learning python with aamar') #press (ctrl+/**)to comment out
        print("hello world") # print a string
        print (2+3) # to print operators function with numbers
```

```
we are learning python with aamar
hello world
5
```

05- variables

```
In [5]: # # variables: objects specific value
        # x= 5
        # print(x)

        # y="we are learning python with aamar"
        # print(y)

        # x= x+10
        # print(x)

        # # types of variables
        # type(x)
        # print(type(x))

        # print(type(y))

        #print_type-class

        #rules to assign a variables
        #1 the variables should contain letters, nummbers or underscores
        #2 do not start with numbers
        #3 spaces are not allowed
        #4 do not use keywords used in functions (break, mean, dedia, test , etc)
        #5 short and descriptive
        #6 case sensivity (lowercase, upper case letters, lower case lettrs should be used)
```

```
fruit_basket=8
fruit_basket="Mangos"
#del fruit_basket
print(type(fruit_basket))
print(fruit_basket)
```

```
<class 'str'>
Mangos
```

06- variables

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

        #input function simple
        # fruit_basket=input("which one 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 funtion
# name=input ("What is your name? " )
# print("hallo!", name)

#3rd stage input funtion
name=input("what is your name? ")
name
age=input("how old are you? ")
age
greetings= "Hello"
print(greetings, name, ", you are still young!")

```

what is your name? ayesha
 how old are you? 29
 Hello ayesha , you are still young!

07- conditional logics

In [7]:

```

# Logical operators are either "true or false" or "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 is equal to 4 (how to ask python)
# print(4==4) #True
# print(4!=4) #False
# print(4!=4)
# print(3<4) # True
# print (3>6)
# print(3>=2)

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

#Input function and logical operator
school_going_age= 5
hammad_age= input("how old is Hammad? ") #input funtion
hammad_age=(hammad_age) # Even we put 5 it gives felse as here it took it as string
# hammad_age=int(hammad_age)
print(type(hammad_age))
print(hammad_age==school_going_age)

```

how old is Hammad? 4
 <class 'str'>
 False

08- typeconversion

In [8]:

```

x=10      # integer
y=10.2    # float
z="Hello" #string

```

```
# print(type(z)) # check the class of variables

# implicit type conversion

# print(type(x*y)) # whenn multiply integer with float gives float
# print(type(x+y)) # whenn add integer with float gives float
# x=x+y
# print(x, ", type of x is ", type(x))

# # explicit type conversion
age=input("What is your age? ")
#age=int(age)
print(age, type(age))
#print(age, type(int(age)))

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

What is your age? 29
29 <class 'str'>

09- if_else_elif

In [9]:

```
Hammad_age= 10
school_going_age= 5

# Question: can hammad go to school?

if Hammad_age==school_going_age:
    print("hammad can join school!")
elif Hammad_age>school_going_age:
    print("hammad can jain higher class!")
else:
    print("hammad cannot go to school")
```

hammad can jain higher class!

10- functions

In [10]:

```
#definig a function
#1
# def print_codanics():
#     print("we are Learning with aammar")
#     print("we are Learning with aammar")
#     print("we are Learning with aammar")
# print_codanics()
#2
# def print_codanics():
#     text = "we are Learning with aammar"
#     print(text)
#     print(text)
#     print(text)
# print_codanics()

#3
# def print_codanics(text):
#     print(text)
#     print(text)
#     print(text)
# print_codanics("we are Learning with ammar in youtube channel")
```

```

#definig a function with if, elif and else statement
def school_calculator(age,text):
    if age == 5:
        print("hammad can join school!")
    elif age>5:
        print("hammad can jain higher class!")
    else:
        print("hammad cannot go to school")
school_calculator(1, "hammad")

# Definig function of future
# def future_age(age):
#     new_age = age+20
#     return new_age
#     print(new_age)
# futur_prediction_age = future_age(5)
# print(futur_prediction_age)

# Definig function of future

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

future_prediction_age= future_age(18)
print(future_prediction_age)

```

hammad cannot go to school
38

11- loops

In [11]:

```

#while and for loops

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

# for loops
# for x in range(5,10):
#     print(x)

# array
days = ["Mon", "Tue", "Wed", "Thu", "Fri", "sat", "Sun"]
for i in days:
    if i=="Thu":break # Loop breaks after thu
    print(i)

```

Mon
Tue
Wed

12- import liberaries

In [12]:

```

#if you want to print the value of pi

import math
print("the value of pi ", math.pi)

```

```
import statistics
x= [100,200,300,400]
print(statistics.mean(x))
```

the value of pi 3.141592653589793
250

13- trouble shooting

In [13]:

```
#syntax error
#print (we are learning python with ammar) # syntax error
#print(25/0) # runtime error

name= "ammar"

#print("hello name")
print("hello", name)
print("hello"+ name)
```

hello ammar
helloammar