# Perticipant

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# Pyhon Ka chilla with baba Aammar

## How to use Jupyter Notebook

## Basics of Python

### 01- My first program

In [ ]:
```
print(2+3)
print('Hello World')
print('We are learning Python with Aammar')
```

### 02_operators

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

In [ ]:
```
print(3**2/2*3/3+6-4)
#PEMDAS
#Left To Right Sequence M D & A S
```

### 03_strings

In [ ]:
```
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''')
# ' '
# " "
# ''' '''
```

In [ ]:
```
# print('what's Up')
print("  what's Up   ?")
print("  what's Up   Tanzeel & Sami ! ")
```

## 04_comments

In [ ]:
```
# print("How are you ?")
print("we are Learning with Aammar") #print sting
print(2+6) # print oprator functions wit numbers
```

In [ ]:
```
#press c\to comment out ctrl + /
```

## 05_variables

In [ ]:
```
# Variables Objects containing specific values
x = 5 # numeric or integer variable
print(x)
```

In [ ]:
```
y = "We are learning Python with Aammar" # String variable
print(y)
```

In [ ]:
```
x = x + 10 # or x =15
print(x)
```

In [ ]:
```
# types/class of variables
type(x)
print(type(x))

print(type(y))
# prnt type_class
```

In [ ]:
```
# Rules to assign a ariable:
# 1- The variable should contain, numbers or underscores
# 2- Do not start wit number -> 2student
# 3- Space are not allowed
# 4- Do not use keywords like used in functions (break, mean,media ,test ect)
# 5- Short  and descriptive
# 6- Case senstivity (Lowyercase, Upercase latters, lowyercase latter should be used )
```

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

In [ ]:
```
fruit_basket = "Mangos" , "Oranges"
print(fruit_basket)
```

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

In [ ]:
```
fruit_basket = 8
print(fruit_basket)
```

In [ ]:
```
fruit_basket = 8
print(type(fruit_basket))
```

In [ ]:
```
fruit_basket = 8
fruit_basket = 15
print(type(fruit_basket))
print(fruit_basket)
```

In [ ]:
```
fruit_basket = 8
fruit_basket = "Mangos"
print(type(fruit_basket))
print(fruit_basket)
```

In [ ]:
```
fruit_basket = 8
fruit_basket = "Mangos"
del fruit_basket
print(type(fruit_basket))
print(fruit_basket)
```

## 06_inpup_variables

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

In [ ]:
```
# input function
fruit_basket = input("What is your favourite fruit ?")
print(fruit_basket)
```

In [ ]:
```
# input function of 2nd stage
name = input(" What is your name ?")
greetings = "Hello"
print(greetings, name)
```

In [ ]:
```
# anoyher way of 2nd stage  function
name = input(" What is your name ?")
print("Hello", name)
```

In [ ]:
```
# 3rd stage input function
```

```
name = input(" What is your name ? ")
age = input(" How old are you ? ")
greetings = "Hello"

print("Hello", name, ", you are still young")
```

In [ ]:
```
#input_Aammar_you are still young
```

## 07_conditional_logics

In [ ]:
```
# logical Oprators are either "True or False" or "yes or no" or "1 or 0"
# Equal to ==
# not equal to !=
# less then <
# greater then >
# less then and equal to <=
# greater then and equal to >=
```

In [ ]:
```
#is 4 equal to 4
print(4 == 4)
```

In [ ]:
```
#is 4 not equal to 4
print(4 != 4)
```

In [ ]:
```
print(4>3)
```

In [ ]:
```
print(3>6)
```

In [ ]:
```
print(3<=5)
```

In [ ]:
```
print(5>=4)
```

In [ ]:
```
# application of logical Oprators
hammad_age = 4
age_at_school = 5
print(hammad_age == age_at_school)
```

In [ ]:
```
#input Function and logical oprator
age_at_school = 5
hammad_age = input("How old is Hammad ?")
hammad_age = int(hammad_age)
print(type(hammad_age))
print(hammad_age == age_at_school)
```

## 08_type_conversion

In [ ]:
```
x =10     #int
y = 10.2  # flot
z = "Hello"  #string
x = x*y
#implicit type conversion
print(x, " Type of x is: ", type(x))
```

In [ ]:
```
#explicit type conversion
age = input("What is your age? ")
# age = int(age)
print(age, type(float(age))) # int , float, str
```

In [ ]:
```
name = input("What is your name? ")
# age = int(age)
print(name, type(str(name)))
```

In [ ]:
```
#type_conversion
```

## 09_if_else&elif

In [ ]:
```
hammad_age = 15
required_age_at_school = 5
# hammad_age = input("How old is Hammad ?")
# hammad_age = int(hammad_age)
# print(type(hammad_age))

# Question: can hammad go to school?
if hammad_age == required_age_at_school:
    print("Hammad can join 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 school")
```

## 10_functions

In [ ]:
```
print("we are larning wity Aammar")
print("we are larning wity Aammar")
print("we are larning wity Aammar")
print("we are larning wity Aammar")
print("we are larning wity Aammar")
print("we are larning wity Aammar")
```

In [ ]:
```
# defining a function
# 1
def print_codanics():
    print("we are larning wity Aammar")
```

```
    print("we are larning wity Aammar")
    print("we are larning wity Aammar")
    print("we are larning wity Aammar")
    print("we are larning wity Aammar")
    print("we are larning wity Aammar")

print_codanics()
```

In [ ]:
```
# 2
def print_codanics():
    text = "we are larning wity Aammar in codanics youtube channel"
    print(text)
    print(text)
    print(text)
    print(text)
    print(text)
    print(text)

print_codanics()
```

In [ ]:
```
# 3
def print_codanics(text):
    print(text)
    print(text)
    print(text)

print_codanics("we are larning wity Aammar in codanics youtube channel")
```

In [ ]:
```
# defining a function with if,elif and else
def school_calculator(age, text):
    if age == 5:
        print(text," can join school")
    elif age > 5:
        print(text," should join higher secondary school")
    else:
        print(text," can not go school")

school_calculator(5,"Hammad")
```

In [ ]:
```
#defining a function of future
def future_age(age):
    new_age = age+20
    return new_age
    print(new_age)

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

## 11_loops

In [ ]:
```
# While and For loops
```

In [ ]:
```
# while loops

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

In [ ]:
```
# for loop
for x in range(0,5):
    print(x)
```

In [ ]:
```
# array
days = ["Mon", "Tue","wed","Thu","Fri","Sat","Sun"]
for d in days:
    if d == "Fri": continue
    print(d)
```

## 12_import_libraries

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

In [ ]:
```
import math

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

In [ ]:
```
import statistics

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

In [ ]:
```
# numpy, pandas, seaborn, matplotlib,
```

## 13_trouble_shooting

In [ ]:
```
print("we are larning wity Aammar) #syntex error
```

In [ ]:
```
print(25/0) # runtime error
```

In [ ]:
```
name = "Tanzeel"
print("Hello name") #symentics error
```

# troble shooting is essy