

01 my frist program

In [1]:

```
print(2+3)
print("hello world")
```

```
5
hello world
```

02 operators

In [15]:

```
print(2+1)
print(3-1)
print(6/2)#without floating values kaleya
print(2*3)
print(13%2)
print(6//2)#without floating values ka leya
print(2**4) #power kaleya out are 16
print(3**2/2*3/3+6-4)
 #(PEMDAS) it is all about operation rules it can be solve one by one and the sequenc
 #parenthesis Exponents Mutiply Divide Addition Subtraction
```

```
3
2
3.0
6
1
3
16
6.5
```

03_strings

In [16]:

```
print('test for single quotes')
print("test for quotes")
print(''''test for tripple quotes''')
print("what's")
```

```
test for single quotes
test for quotes
test for tripple quotes
what's
```

04_comment

In [17]:

```
print("how are you")
print("we are learninng python with hamad ur rehman")
print(2+6)
 #ctrl+/ are used for commenting the lines before commenting we will select the line
print(2+8)#print operator d funcations with numbers
```

```
how are you
we are learninng python with hamad ur rehman
8
10
```

05_input_variables

```
In [18]: fruit_basket=input("what is your favourite fruite")
print(fruit_basket)
x=9
print(x)
```

```
what is your favourite fruite4
4
9
```

input_variable_02

```
In [19]: #variable: object containing specific values
x = 5
print(x) #numeric or integer variable

y="we are learing python with hammad" #string variable
print(y)

x=15
print(x)

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

#types/class of vaiable
type(x)
print(type(x)) #output: int class

print(type(y)) #output: str class

#print_types_class
#Rules to assign a variable:
# 1: the variable should contain Letter number underscore
# 2: do not start with numberd
#3: space are not allowed
# 4: do not use keyword used in funcation (break,mean,media e.t.c)
# 5: short and descriptive
# 6: case sensivity(lowercase, uppercase Letter Lowercase Letter should be used)

#input functions
fruit_basket=input ("what is your favourite fruite ")
print(fruit_basket)
#these two lines are called cin Labrabry

#input second funcation for example just
name=input("enter your name: ")
greeting=("hello")
print(greeting,name)

# another way of second funcation
name=input("enter your name: ")
print("hello",name)

#thrid stage of input funcation
name=input("what is your name")
age=input("how old are")
greeting="hello"
print(greeting,name," , you are still young")
```

```

5
we are learing python with hammad
15
25
<class 'int'>
<class 'str'>
what is your favourite fruited 6
6
enter your name: hamad
hello hamad
enter your name: ali
hello ali
what is your nameahmad
how old are23
hello ahmad , you are still young

```

06_conditions

In [20]:

```

#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 equal to 4
print(4==4) #output are ture
print(4!=4) #output are false
print(4>3) #output are ture
print(3>6) #output are false
print(3<=4) #output are ture
print(5>=4) #output are ture
#application of logical operators
hamad_age=4
age_at_school=5
print(hamad_age==age_at_school)

#inout funcaton and Logical operator
age_at_school=5
hamad_age=input("how old is hamad") #input funcation
hamad_age=int(hamad_age) # it is used to convert string to int
print(type(hamad_age))
print(hamad_age==age_at_school)

```

```

True
False
True
False
True
True
False
how old is hamad22
<class 'int'>
False

```

07_conversions

In [21]:

```

x=10 #integer

```

```

y=10.2      #float
z="hello"   #string

#implicite type conversion
x=x*y
print(x,"type of x is " ,type(x))    # output are float because it conver integer to

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

```

File "C:\Users\hamad\AppData\Local\Temp\ipykernel_7992\618709986.py", line 10
 age=input("what is your age")
 ^

IndentationError: unexpected indent

08_ifel_else

In [22]:

```

hamad_age=4
required_age_at_school=5

#question can hammad go to school?

if hamad_age==required_age_at_school:
    print("hamad can join the school")
elif hamad_age > required_age_at_school:
    print("hamad shold join school")
elif hamad_age==2:
    print("you should take care hamad he is still a baby")
else:
    print("hamad can not join to school")

```

hamad can not join to school

09_funcations

In [23]:

```

def print_codanic():
    print("we are learning with hamad")
    print("we are learning with hamad")
    print("we are learning with hamad")
print_codanic()

#2
def print_codenices():
    text="we ware learning with hammad g"
    print(text)
    print(text)
print_codenices()

#3
def print_code(text):
    print(text)
    print(text)
print_code("we are learnini just")

#4
def school_calculator(age, text):
    if age==5:

```

```

    print("hamad can join school")
elif age>5:
    print("hamad should go to higher school")
else:
    print("hamad still a baby")

school_calculator(15,"hamad")

#5
def future_age(age):
    new_age=age+20
    return new_age
    print(new_age)
future1=future_age(18)
print(future1)

```

we are learning with hamad
 we are learning with hamad
 we are learning with hamad
 we ware learning with hammad g
 we ware learning with hammad g
 we are learnini just
 we are learnini just
 hamad should go to higher school
 38

10_important librarayes

In [24]:

```

#if you want to print the values of pi
import math
print("the values of pi is",math.pi)

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

#same important libraries are numpy,pandas

```

the values of pi is 3.141592653589793
 300

11_loops

In [25]:

```

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

#for loop is ma hum range da tai hai
for x in range(5,10):
    print(x)

#array
days = ["Mon", "Tue", "Wed", "Thu", "Fri"]

```

```
for d in days:  
    if(d=="wed"):break #loop stops  
    if(d=="wed"):continue #skips d it mean before the wed and wed are skips are the  
    print(d)
```

```
0  
5  
6  
7  
8  
9  
Mon  
Tue  
Wed  
Thu  
Fri
```

In []: