**Basics of Python**

*Print(“Hello World !”)*

... Hello World!

* Print-function in python
* Function is used to perform any task.

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**Comment**

#Hello World program

*Print(“Hello World”)*

“““ This is Basics of Python”””

….. Hello World !

* **#** is use for single line comment
* **“““ ”””** (Triple double-quote) & **‘’’‘’’’** (Triple single-quote) is use for multiline comment.

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**Escape sequence character**

*Print(“Hey I am a \”good girl\”\n and I am a student ”)*

……. Hey I am a “good girl”

and I am a student

* If we want some string in double quote the use  **\” \”** Then it will print.
* An escape sequence character is a backslash \ followed by the character you want to insert

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**Variable & Datatypes**

* **Variables-** variables are like containers that holds data.
* **Datatypes-** Datatype specifies the type of value a variables holds.

a=1.3

b=True

c="Anagha"

d=None

print(a)

print(b)

a1=6.7

print(a+a1)

print("The type of a is ",type(a))

print("The type of b is ",type(b))

print("The type of c is ",type(c))

print("The type of d is ",type(d))

1.3

True

8.0

The type of a is <class 'float'>

The type of b is <class 'bool'>

The type of c is <class 'str'>

The type of d is <class 'NoneType'>

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***Datatypes-***

1. Numeric data

* Int = 3, -8, 0
* float = 3.15
* complex = 3+2i

1. Text data : string

* Str= “Hey !! How are you?”

3. Sequential data

* List- List are mutable and can be modified after creation.

list1=[8,2.3,(-4,5),['apple','banana']]

print(list1)

…..[8, 2.3, (-4, 5), ['apple', 'banana']]

* Tuple - Tuples are immutable and can not be modified after creation.

tuple1=(('parrot','sparrow'),('Lion','Tiger'))

print(tuple1)

(('parrot', 'sparrow'), ('Lion', 'Tiger'))

**Operators**

* **Arithmetic operators**: +, -, \*, /, %, \*\* (exponentiation), // (floor division).

a = 9

b = 3

add = a + b

sub = a - b

mul = a \* b

mod = a % b

p = a \*\* b

print(add)

print(sub)

print(mul)

print(mod)

print(p)

13

5

36

1

6561

* **Comparison operators**:  == , !=, <, >, <=, >=.

a = 9

b = 3

print(a > b)

print(a < b)

print(a == b)

print(a != b)

print(a >= b)

print(a <= b)

True

False

False

True

True

False

* - - - - - - - - - - - -- - - - - - - - - - - - - - - - - - -- - - - - - - - - - - - - - - - - - - - - - - -
* **Logical operators**: and, or, not.

c = True

d = False

print(c and d)

print(c or d)

print(not c)

False

True

False

- - - - -- - - - - - - -- - - -- - - - - - - - - - - -- - - -- -- - - - - - - - - - - - - - - - - - - - -

* **Assignment operators**: =, +=, -=, \*=, /=, %=, \*\*=, //=.

a = 10

b = a

print(b)

b += a

print(b)

b -= a

print(b)

b \*= a

print(b)

b <<= a

print(b)

10

20

10

100

102400

* **Bitwise operators**: &, |, ^, ~, <<, >>.

a = 10

b = 4

print(a & b)

print(a | b)

print(~a)

print(a ^ b)

print(a >> 2)

print(a << 2)

0

14

-11

14

2

40

- - - - - - -- - - - -- -- - - - - - - - - - - - - - - - - - - -- -- - - - - - --- - -- - - - - - - - - - - - - -

* **Strings**: Strings can be enclosed in single or double quotes. You can use the + operator to concatenate strings.

a = "DKTE"

b= 'RAJWADA'

print(a)

print(b)

         # using ',' to concatenate the two or more strings

print(a,b)

         #using '+' to concate the two or more strings

print(b + a)

DKTE DKT

TE DKTE

DKTE

RAJWADA

DKTE RAJWADA

RAJWADADKTE