PYTHON TUTORIAL

\*\*SEMICOLON NAHI DENA HAIN!

No header files

1. Hello World

print("hello world")

1. Variables
2. # String
3. FirstName = "Tony"
4. LastName = "Stark"
5. # Integer
6. Age = 51
7. # Boolean
8. Is\_Hero = True
9. Info = "Tony is a genious"
10. print (FirstName , LastName);
11. print("Age = " , Age)
12. print(Info)
13. if(Is\_Hero):print("He is a Hero")

3. Input

SupName  = input("what is your favourite superhero's name?")

SupAge = input("What is your favourite superhero age?")

SupInfo = input("Give info About your favourite superhero : ")

SupAlive = input("Is he Alive?")

print("name = " , SupName )

print("Age = " , SupAge)

print(SupInfo)

4. Type Conversion

old\_age = input("Enter your Age : ")

new\_age = old\_age + 2;

print(new\_age)

# Will give error , we should typecast old\_age to int

new\_age = int(old\_age) + 2

print(new\_age)

# another Type\_casts

float()

str()

bool()

5. String

name = "Sudesh Rampurkar"

# To convert string to uppercase

print(name.upper())

# To convert string to lowercase

print(name.lower())

# To find a substring in given string

# it will return index or -1

print(name.find("u"))

# Print karte vakt replace karna ho to

print(name.replace("Rampurkar" , "Player"))

print(name)

# Key Words

# to check if some substring is present in given string

print("ude" in name)

print("tro" in name)

6 . Operators:

1. Arithmatic

# addition

print(4+2)

# substraction

print(4-2)

# multiplication

print(4\*2)

# division

# point madhe ans pahije tr

print(5/2)

# int ans pahije asel tr

print(5//2)

# reminder

print(5%2)

# power

print(5 \*\* 2)

# Shortcuts

i = 5

i+=2

print(i)

i-=2

print(i)

i\*=2

print(i)

i/=2

print(i)

i\*\*=2

print(i)

i%=2

print(i)

# Boolean

and = does and

or = does or

Operator precedence In Python

* P – Parentheses.
* E – Exponentiation.
* M – Multiplication.
* D – Division.
* A – Addition.
* S – Subtraction.

7 . If – else

age = 1

if age>18 :

    print("Adult")

elif age >15 :

    print("Teenager")

elif age==5 or age >10 :

    print("special age")

else :

    print("NewBorn")

8 . Calculator project

num1 = input(" Enter first number  ")

num2 = input(" Enter second number  ")

num1 = int(num1)

num2 = int(num2)

print(" enter + for addition\n" , "enter - for substraction" )

print(" enter \* for multiplication\n" , "enter / for decimal accurate division" )

print(  " enter // for integer division\n"  )

op = input("Enter operation = ")

print(op)

if op == "+" :

    print(num1+num2)

elif op == "-" :

    print(num1-num2)

elif op == "\*":

    print(num1\*num2)

elif op == "/" :

    print(num1/num2)

elif op == "//":

    print(num1//num2)

else:

    print('Operator does not exists')

9. Range

numbers = range(10)

print(numbers)

= 0 to 9

10. Loops

# while loop

i = 0;

i = int(i)

while i<6 :

    print(i\* "\*")

    i+=1

# for loop

for it in range(10) :

    print(it)

11. Lists

# kuch bhi mix kar sakte hain

ex = [10 , "loji" , True]

print(ex[2])

marks = [2 , 13 , 45]

# 0 based indexing

print(marks[0])

# we can use negetive index too bss -1 se chalu karo

print(marks[-1]) # -i = n - i

# print range

print(marks[1:3])  #this means 1th index se 2th index tak include karenge

# 3 not included

# to print all elements

for score in marks :

    print(score)

marks.append(99) # to insert new element in list at last

marks.insert(0 , 77) # to insert new element at preferred index

print(77 in marks) # true if 77 is present in marks

print(len(marks)) # number of elements in list marks

marks.clear() # sari ki sari list khali hojayegi

12 . Break and Continue

#jaha bhi loop khatam karna hota hain vaha break use karte hain

#continue ke niche ke sare tasks ignore hote hain but loop firse run hota hain

names = ["a" , "b" ,"c" , "d"]

for i in names :

    if(i=="a"):

        break

    if(i=="b"):

        continue

    print(i)

13. Tuples

#it is an immutable list

marks = ( 11 , 22 ,  222,22,22) #declaration with smal brackets

#it counts number of occurances of an element

print(marks.count(22))

print(marks.index(22)) # sabse pehla occurance of 22

14 . Set

# set :

# list of unique elements

names = {"monica" , "chandler" , "ross" , "joey"}

# declared with curly braces

# unordered container

15 . Dictionary

# Dictionary :

# set containing pairs of key and value

# d = { k1 : v1 , k2 : v2}

# its like map in c++

marks = {"ecad" : 30 , "mpi" : 31}

print(marks["ecad"])

16 . Functions

# In-built functins

# Module functions

# user - defined functions

# Module functions

import math

print(dir(math))

# User defined functions

# syntax :

#  def function\_name (parameters) :

#      // do this

def printsum (a , b) :

    print(a+b)

print(printsum(5,6))