Session 1:

* What is python

Session 2:

* Install python and few examples:

For String and Character we use double quotes(“ “)

EG : print(“HELLO WORLD”)

print(“H”)

For numbers we use no double quotes direct we write (number)

EG: print(2)

Session 3:

* Declaration of variables

EG: AGE=40 //print(AGE)

Name=”hello” //print(Name)

No=75.75 //print(No)

* Assigning multiple values //MULTIPLE ASSIGNMENTS

EG: a=b=c=10 //all has values 10

a,b,c=10,10.3,”john” //it has values in sequence

Session 4:

* Data- types in Python

NUMERIC

-INTEGER

-COMPLEX NUMBER

-FLOAT

DICTIONARY

It has key value pairs //d = {1:”maths”,2:”science”}

BOOLEAN

//A=True

SET

//set1=set()

//set2={“hello”,63,”world”}

SEQUENCE TYPE

-STRINGS //x=”hello”

-LIST //y=[“mango”,”orange”,”banana”]

-TUPLE //z=(“mango”,”orange”,”banana”)

TO FIND WHAT TYPE OF DATATYPE IS FOLLOWING VARIABLE

//type(variable-name)

Session 5:

DATATYPE CONVERSION

s=”2000”

c=int(s,2) //string s to int base 2

d=float(s) //to float

h=ord("4") //char to int (4 converted to int it was char)

g=ord(“f”) //f ascii value in numeric value

x=hex(74) //int to hex

k=tuple(‘ehw’) //string to tuple

n=list(“hfskj”) //string to list

s=str(“74”) //int to string

d=chr(66) // numeric to ascii value i.e char(B)

Session 6:

Identifier

Keywords

Reading-input /var=raw\_input(“ ”)

/var=input(“ ”)

Session 7:

Taking multiple input /split()

/input().split(separator,maxsplit)

Always use space for input the value

x,y,z=input('enter three values: ').split()

print('No of boys: ',x)

print('No of girls: ',y)

print('No of teachers: ',z)

Output Formatting

Done by 3 methods:

-Format Method

-String Method

//print("Rank: %5d,Percentage: %5f"%(1,56.785))

After Rank 5 spaces and then value same for Percentage

//print("INteger: %3d,Flaoting: %3f"%(46,67.478))

-Module(%) Operator

//print("Rank: %d,Percentage: %f"%(1,56.785))

It will show 6 value after .

//print("Rank: %d,Percentage: %0.3f"%(1,56.785))

It will show only 3 value after . now

//print("INteger: %d,Flaoting: %f"%(46,67.478))

Session 8:

Output Formatting

//print(“i am learning {} from {}”.format(“python”,”udemy”))

//print(“i am learning {0} from {1}”.format(“python”,’udemy’))

//print(“i am learning {1} from {0}”.format(“python”,’udemy’))

To adjust the text at center ,left,right

a="MY NAME IS KHAN"

print(a.center(90,"\*")) //a in center total with 90 \* and a variable

print(a.ljust(90,"\*")) // a in left total with 90 \* and a variable

print(a.rjust(90,"\*")) // a in right total with 90 \* and a variable

Use of end

print('jay')

print('jay to',end='')

print('kjsfkhkifk hgfdsbdfs ghjfsd',end='')

//op

// jay

jay tokjsfkhkifk hgfdsbdfs ghjfsd

Session 9:

OPERATORS:

-ARITHMETIC

+,-,\*,/,%(modulo--remainder) ,\*\*(exponent),//(quotient or floor division)

-COMPARISON/RELATIONAL

<,>,<=,>=,==,!=

-ASSIGNMENT

=,/=,+=,-=,\*=,%=,\*\*=,//=

a ,b ,c=10,20,0

c=a+b

c+=a //c=c+a

c-=a //c=c-a

c/=a //c=c/a

c\*=a //c=c\*a

c%=a //c=c%a

c\*\*=a //c=c\*\*a

c//=a //c=c//a

-LOGICAL

and,or,not

-BITWISE

&,|,^,~

-MEMBERSHIP

in, not in //to find data in there or not

x=[‘apple’ , ’banana’]

print(‘apple’ in x) //TRUE

print(‘mango in x) //FALSE

-IDENTITY

is , is not //for checking memory location

//only the memory allocate should be diffent or false

Session 10:

-DECISION MAKING STATEMENT

-if stmt

// if(condition):

stmt

-if..else stmt

// if(condition):

Stmt

else:

stmt

// a=2

b=20

if (a>b):

print('a is greater')

else:

print('b is grater')

-nested if stmt

a=34

if(a > 30):

if(a>35):

print("a is greater than 30")

else:

print('a is less than 35')

else:

print('age is less than 30')

-elif

p,q=4,54

if (p<q):

print('q is greater')

elif (p==q):

print('both are same')

else:

print('p is graeter')

Section 11:

Loops

-for

Eg: for name in ‘JAYESH’:

Print(“letter ares”,name) //normals show all leter one by one

Eg: for x in range(1,6) :

Print(x) //it will print 1-5 no

Eg: for x in range(1,6 , 2) : //always put ending no+1

Print(x) //it will print 1-5 no with gap of 2 digit

-while

count=1

while(count<=9):

print('count is: ',count)

count+=1

-nested loop

for x in range(1,6):

for y in range(1,x+1):

print(x,end=" ")

print()

-infinite loop

cnt=10

while(cnt>9):

print("count:",cnt)

Loop control stmt

-break

for a in range(1,20):

if(a==10): //will break at 10 or would go till 20

break

print(a)

-continue

for a in range(1,20):

if(a==10): //skip 10 it will not show 10

continue

print(a)

-pass

for a in range(1,20):

if(a==10): //nothing willhappen

pass

print(a)

Print star logic

for i in range(1,6):

for i in range(1,i+1):

print("\*",end=' ')

print()

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

Pattern 2

for i in range(5,0,-1):

for j in range(1,i+1):

print("\*",end=' ')

print()

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

Pattern 3:

a=6

b=2\*a-2

for i in range(0,a):

for j in range(0,b):

print(end=' ')

b-=1

for j in range(1,i+1):

print(i,end=' ')

print()

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

Pattern 4:

a=6

b=2\*a-2

for i in range(0,a):

for j in range(0,b):

print(end=' ')

b-=1

for j in range(1,i+1):

print("\*",end=' ')

print()

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

Pattern 5:

a=6

b=2\*a-2

for i in range(0,a):

for j in range(0,b):

print(end=" ")

b-=2

for i in range(0,i+1):

print("\*",end=" ")

print()

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

\* \* \* \* \* \*

Patern 6:

a=6

b=2\*a-2

for i in range(0,a):

for j in range(0,b):

print(end=" ")

b-=2

for i in range(0,i+1):

print(i,end=" ")

print()

0

0 1

0 1 2

0 1 2 3

0 1 2 3 4

0 1 2 3 4 5