**DAY-10(13-12-2023)**

**If ,Else,Elif Statements:** These are the conditional statements which are used to check the condition.These will work as like incase if statement is executed with condition provided is true it will enter into the loop and execute the statements in if block otherwise these will enter into the else block and excecute the else block statements.

**Ex:**

x=2

if x==2:

    print("values are equal")

else:

    print("values are not equal.")

**Output:**

Values are equal.

**Elif Statement:** These are the conditional statements with condition we can put multiple conditions.It will check the condition one by one and then execute the statements.

**Ex:**

x=5

if x==1:

    print("It entered into the first block")

elif x==3:

    print("It entered into the second block")

elif x==5:

    print("It entered into the third block ")

elif x==4:

    print("It entered into the fourth block")

**output:**

It entered into the third block

**For Loop:** It is the iterating loop use when we know the numbers of iterations before.

**Ex:**

n=int(input("enter n value"))

for i in range(n):

    print(i)

Output:

enter n value 5

0

1

2

3

4

**While loop:**It is also a iterative looping structures when we do not know the number of iterations.

count = 0

while (count < 3):

    count=count+1

    print("Hello World")

Output:

Hello World

Hello World

Hello World

**While Loop with else:** After while loop else block will execute.

count = 0

while (count < 3):

    count = count + 1

    print("Hello Geek")

else:

    print("In Else Block")

**Output:**

Hello Geek

Hello Geek

Hello Geek

In Else Block

**Nested For Loops:** Loop inside a loop called as nested loops.

EX:

n=5

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

    for j in range(1,i):

        print("\*" ,end=' ')

    print("\n")

Output:

**\***

**\* \***

**\* \* \***

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

**List:** List is used to store the collection of different data type elements.

print("List Iteration")

l = ["Data", "Science", "in Hexaware"]

for i in l:

    print(i)

print("\nTuple Iteration")

t = ("Python", "Programming")

for i in t:

    print(i)

print("\nString Iteration")

s = "Object Orientation"

for i in s:

    print(i)

print("\nDictionary Iteration")

d = dict()

d['abc'] = 123

d['ABC'] = 345

for i in d:

    print("%s  %d" % (i, d[i]))

print("\nSet Iteration")

set1 = {1, 2, 3, 4, 5, 6}

for i in set1:

    print(i)

**Output:**

List Iteration

Data

Science

in Hexaware

Tuple Iteration

Python

Programming

String Iteration

O

b

j

e

c

t

O

r

i

e

n

t

a

t

i

o

n

Dictionary Iteration

abc 123

ABC 345

Set Iteration

1

2

3

4

5

6

**List Methods and Slicing:**List has Different types of methods like append,clear,copy,count,pop etc.

Let us see the example for all methods:

list1=['stella',20,'kiran',200.9]

print(list1)

#list methods

list1.append("kishore") #used to add values at end

list1.insert(2,400) #used to insert values at specified position

list2=[20,30]

list1.extend(list2)#adding values from another list

list1[3]="Ramya"#changing values at particular position

del list1[1] #removing values at particular position

#Iterating over list

for i in list1:

    print(i)

print(list1)

#list slicing

print(list1[-1])

print(list1[1:3])

print(list1[:])

**Output:**

['stella', 20, 'kiran', 200.9]

stella

400

Ramya

200.9

kishore

20

30

['stella', 400, 'Ramya', 200.9, 'kishore', 20, 30]

30

[400, 'Ramya']

['stella', 400, 'Ramya', 200.9, 'kishore', 20, 30]