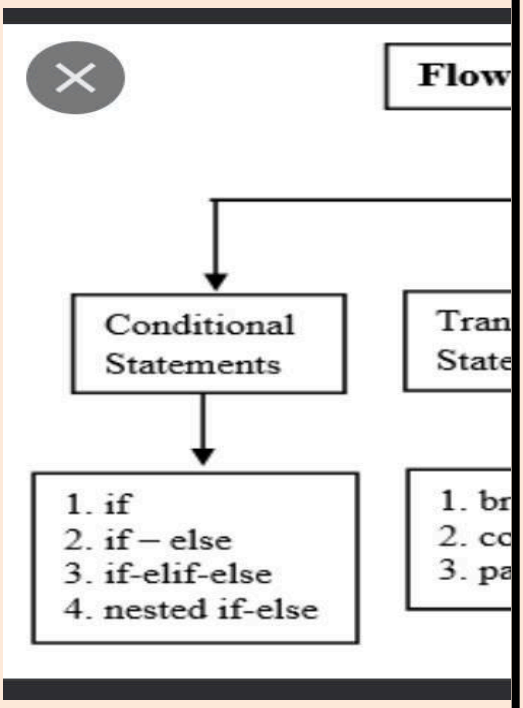
CH-09 FLOW OF CONTROL

Introduction	• Types of statements • Statement flow control • If statement of python • Repetition of Tasks • Range() function • Iteration through looping statement 	
Types of statements	• Empty statements The simplest statement is the empty statement Is statement which	

	does nothing in Python in MP statement is passed statement. it is the following form pass pass • Simple statements Any single executive statement is a simple statement in python • Compound statement A compound statement represent a group of statement executed as a unit if a>b : print(a) print(b) print(c)	
	Pass	
	Ex print(“kv2 jhansi cant”) A=int(input(“Enter value of a”))	

	If a==b: print(a) print(a*2) print*(a*3)	
Statement Flow Control	1.Sequence ProgrammingThe sequence construct means the statement are being executed sequentially. this represent the default flow of statement	
	2.Selection/Conditional Programming- • if statement, • if else statement, • if elif statement	
	3.Iteration/repetition-Looping statement • for loop • while loop	
1.Selection /Conditional Programming	If statement If condition : Statement Or If condition : Statement Statement	

2.If –else statement	**If condition :** **Statement** **else :** **statement** **or** **If condition :** **Statement** **statement** **else :** **statement** **statement**	
	Q1.write a programme to input 03 numbers and print largest one. **Q2.Write any input any number and check it even or not.** **Q3. Input any no and check whether it is positive or negative.** **Ex -5 negative** **Q4. Input your age and check whether you are eligible for vote or not.** **Q5.Input any three numbers and print largest one.**	

	Q6.input any alphabet and check it is vowel or not. **Q7.input length and breadth of rectangle and check whether area is greater than parameter or not.** --- **A=5** **5%2==0** **1==0** **A=4** **4%2==0** **0==0** ---	
	Q2.Write any input any number and check whether they are equal or not. **Q3.Write a programme to input any number and check it is divisible by 7 or not.** **if n%7==0 :** **Ex-49** **Op "No is divisible by 7**	

	67 O/P No is not divisible by 7	
	Q1 What will be the output of the following code if the input given is (i) 7 (ii) 5 if a==5 : print("Five") else : print("Not Five") o/p i)Not Five ii) Five	
	Q1.What is selection statement ? Which selection statements provided by the python? Ans-if,if –else if el if	

<table>
<tr>
<td></td>
<td>Q3.Correct the code
If (x=1)
k=100
else
k=10

Ans-
Correct code
If x==1 :
k=100
else :
k=10</td>
<td></td>
</tr>
<tr>
<td>3.If elif -statement</td>
<td>Ex
Above>90 A
70-90 B
50-70 C
30-50 D
Below 30 E

Q.Write a code in python to input cost price of a product and find the net price after deducting discount as per the following criteria
<table>
<tr><td>Price</td><td>disc</td></tr>
<tr><td>10000</td><td>8%</td></tr>
<tr><td>10000-20000</td><td>10%</td></tr>
</table>
</td>
<td></td>
</tr>
</table>

Above 20000	15%

```
Totalm=int(input("Enter
your total marks"))
if  Totalm>=70 :
    print("Science Stream")
elif Totalm>=50 and
Totalm<70 :
    print("Commerce
Stream")
elif Totalm>=30 and
Totalm<50 :
    print("Humanities
Stream")
```

Month no	Season
11,12,1,2	Winter
3,4,5,6	Summer
7,8,9,10	Autumn

	Write to code to input two numbers and one operator and print the operation according to input operator Ex 12 24 + 36 12 12 – 0 5 6 * 30	
Repetition or iteration programing	a=int(input("Enter no.")) b=int(input("Enter no.")) op=input("Enter any operator") if op=="+" : print(a+b) elif op=="-" : print(a-b) elif op=="*" : print(a*b) elif op=="/" : print(a/b) elif op=="%" : print(a%b)	

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Q.Write the output of the following code [2]

```
if a<=10:
   b=a+5
eleif a>10 and a<=50:
  b=a+40
eleif a>50 and a<=100:
  b=a+60
print(b)
```

i) if the value of a is 7

ii) if the value of a is 60

HW

Q1.input any number and check it is even and odd

Q2. Input any year and check it is leap year or not

3.Repetition or iteration programing

```
Print("rohit")
Print("rohit")
Print("rohit")
Print("rohit")
```

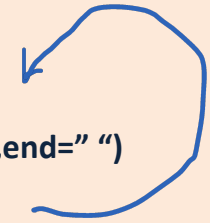
	========== ========== Print("rohit") ========== ========== = 1.For loop 2.While loop	
Range Function	range(0,5) or range(5) 0,1,2,3,4 --- range(10,15) 10 11 12 13 14 --- Range(1,10,2) 1 3 5 7 9 Range(1,10,3) 1,4,7	
For loop	for variable in sequence : statement to repeat for a in range(5): print("Puskar") Dry Run 0,1,2,3,4 a=0 Puskar a=1 Puskar a=2 Puskar a=3 Puskar a=4 Puskar a=5 puskar X	

Write a code to print 10 to 50 numbers	for a in range(10,51): print (a)	

# print 1 to 10 numbers on the screen	# print 0 to 10 numbers on the screen 	
	for m in range(11):
	  print(m)
	# print 10 to 20 numbers on the screen
	for a in range(10,21):
	  print(a)
	# print table of 5
	2*1=2
	2*2=4
	2*3=6	

	# Python code to find the factorial value of any input number # n=5 factorial value=120 1*2*3*4*5=120 # n=4 factorial value=24 1*2*3*4=24 n=int(input("Enter any number")) fact=1 for a in range(1,n+1): fact=fact*a print("Factorial Value of Number=",fact) DRY RUN n=5 fact=1 a=1 fact=1*1=1 a=2 fact=1*2=2 a=3 fact=2*3=6 a=4 fact=6*4=24 a=5 fact=24*5=120 a=6 Not enter inside loop	

	# print all even no between 2 to 50
	#sum of series
	# 1+2+3+4+5……..100
	# 2+4+6+8……..200
	#
	1+3+5+7+……100
	# 5+10+15+20+……..200
	1^2+2^2+3^2……..n^2
	
	# 1+2+3+4+5……..100
	sum=0
	for a in range(1,101):
	  sum=sum+a
	print("Sum of series=",sum)
	
	DRY RUN
	a=1 sum=0+1=1
	a=2 sum=1+2=3
	a=3 sum=3+3=6
	a=4 sum=6+4=10
	
	# code to find the sum of 1 to 5 numbers 1+2+3+4+5
	# Code to find sum of 1+2+3+4+5 series
	sum=0 # HOLDS THE sum of series
	for m in range(1,6):
	  sum=sum+m
	print(“Sum of Series=”,sum)
	Dry Run
	
	m=1 sum=0+1=1	

	m=2 sum=1+2=3 m=3 sum=3+3=6 m=4 sum=6+4=10 m=5 sum=10+5=15 m=6 X	
2.While loop	Syntax:- while condition : Python statement Update statement --- Ex N=1 while N<=5: print(N,end=" ") N=N+1  Dry run N=1 1<=5 True 1 2 3 4 5 N=1+1=2 N=2 2<=5 True N=2+1=3 N=3 3<=5 true N=3+1=4 N=4 4<=5 True N=4+1=5 N=5 5<=5 True N=5+1=6 N=6 6<=5 False 10,11,12,13..... .....100 $x^1+x^2+x^3+x^4$..... .....x^n	

	x/1+x2/2+x3/3..... .....xn/n	
Examples		

Nested loop	*
	* *
	* * *
	* * * *
	* * * * *
	
	for m in range(1,5):
	  for n in range(1,4):
	  print(" * ",end=" ")
	  print()
	--- 	
	m= 1
	n=1 * * *
	n=2
	n=3
	m=2
	n=1 ** *
	n=2
	n=3
	
	m=3
	n=1 * * *
	n=2
	n=3
	
	m=4
	n=1 * * *
	n=2
	n=3
	.....
	* * *
	* * *
	* * *
	* * *
	
	1
	1 2 3
	1 2 3 4 5
	1 2 3 4 5 6 7
	1 2 3 4 5 6 7 8 9
		OUTER
		INNER

m=1
    n=1   * * *
    n=2
    n=3
==========
==========
m=2
    n=1   * * *
    n=2
    n=3
==========
==========
m=3
    n=1   * * *
    n=2
    n=3

m=4
    n=1   * * *
    n=2
    n=3

* * *
* * *

* * * * *
* * * * *
* * * * *

0
2 2
4 4 4
6 6 6 6
8 8 8 8 8

Jump Statement		

break	for m in range(1,5):
	  if m%2==0 :
	  break
	  else :
	  print(m)
	print("Break Statement")
	
	OUTPUT
	
	1
	Break Statement
	Q2
	for i in range(10):
	  print(i)
	  if(i == 7):
	  print('before break')
	  break
	  print('after break') # Inside loop body, any code after the break statement will not execute
	print('Out of loop body')
	
	OUTPUT
	0
	1
	2
	3
	4
	5
	6
	7
	before break
	Out of loop body	

	Q3
	for i in range(2,6):
	  print('Table of ',i)
	  for j in range(1,11):
	  print(i*j)
	  if (j == 5):
	  break
	
	Table of 2
	2
	4
	6
	8
	10
	Table of 3
	3
	6
	9
	12
	15
	Table of 4
	4
	8
	12
	16
	20
	Table of 5
	5
	10
	15
	20
	25	

Continue	for m in range(1,5):
	  if m%2==0 :
	  continue
	  else :
	  print(m)
	print("Continue Statement")
	
	DRY RUN
	# m=1 1%2==0 False 1
	# m=2 2%2==0 True
	# m=3 3%2==0 False 1 3
	# m=4 4%2==0 True	

	for i in range(6):
	  if(i==3):
	  continue
	  print(i)
	
	OUTPUT
	
	0
	1
	2
	4
	5	

for else statement	for m in range(10,15):
	  if m%2==0 :
	  print(m)
	else :
	  print(m)	

	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	https://drive.google.com/drive/folders/1-GEtsTJZsXYh3FlMdRO9sgi3iVgT1ytI?usp=sharing
	Write the output of the	