In [ ]: In [ ]:

```
i=1 # intialization

while i<10:
 print(i,end=' ')
 i+=1

# step-1: i=1 i<10 (1<10)
True print(1) i=2 # step-2:
i=2 2<10 True print(2) i=3 #
step-3: i=3 3<10 True
print(3) i=4

# step-9 i=9 9<10 True
print(9) i=10 # step-10: i=10
10<10 False out of the loop
```

In [ ]: In [ ]:

```
for i in
range(1,10):print(i,end=' ')
```

In [ ]:

```
i=1 # intialization

while i!=10:
 print(i,end=' ')
 i+=1
```

loop

1. intialization

2. condition

3. increment/decrement

```
for i in range(1,10)
intializtion : i=1
condition : i<10 i=9
increment : i++
```

In [ ]:

```
i=1 # intialization

while True:
 print(i,end=' ')
 i+=1
 if i==10:
 break
```

```
In [ ]:
```

```
In [ ]: In [ ]: In [ ]:
```

```
i=1 # intialization

while i<10:
 print(i,end=' ')
 i+=1

##########################################
##########################
In [ ]: In [ ]:
```

```
i=1 # intialization

while i!=10:
 print(i,end=' ')
 i+=1

##########################################
##################################
i=1 # intialization

while True:
 print(i,end=' ')
 i+=1
 if i==10:
 break


for i in range(-10,1):
 print(i,end=' ')

# while
# intial point = -10
# increment
# condition:


i=-10
while i<-1:
 print(i,end=' ')
 i+=1

# printing and increment


i=-10
while i<-1:
 i=i+1
 print(i,end=" ") # -9

# increment and then printing


# WAP ask the user enter a number 3 times
# and print the square of the number

for i in range(3): # -------> while
 num=eval(input("enter the number1:"))
 print("the sqaure of {} is
{}".format(num,num*num))
```

```
In [ ]: In [ ]: In [ ]: In [ ]:
```

```
i=1
while i<=3:
 num=eval(input("enter the
number1:"))
 print("the sqaure of {} is
{}".format(num,num*num))  i+=1
```

```
# print the even and odd number
between 20 to 30 for i in
range(20,31): # while wrapper
 if i%2==0:
 print("{} is even
number".format(i))  else:
 print("{} is odd
number".format(i))
# print the numbers 20 to 30
using while loop # i=20
# increment
```

```
In [ ]:
```

```
# condition


i=20
while i<=30:
 if i%2==0:
 print("{} is even
number".format(i))  else:
 print("{} is odd
number".format(i))  i+=1


# WAP sum of first 10 natural
numbers using while loop

sum1=0
for i in range(1,11):
 sum1= sum1 + i

print(sum1)


sum1=0
i=1
while i<11:
 sum1= sum1 + i
 i+=1

print(sum1)


while True:
 no = eval("enter a number:")
 print('{}no sq is
{}'.format(no, no*no))
```

```
In [ ]: In [ ]:
```

```
In [ ]:
while True:
 no = input('Enter the number (STOP to
Stop) :- ')
 if(no.lower() == 'stop'):
 print('Thank u')
 break
 else:
 no = eval(no)
 print('{}no sq is {}'.format(no, no*no))


# ask the user enter a number1
# take an another number2 as random using
random package between 1 to 10 # if
number1==number2 then print you won
# otherwise print you lost
```

```
# unlimited chances (True)


import random
while True:
 num1 = eval(input("Enter number:- "))
 num2 = random.randint(1,10)
 if(num1 == num2):
 print('You won')
 break
 else:
 print('You lost because num2 = {} Try
again till you won'.format(num


import random
num1=eval(input("enter num1:"))
num2=random.randint(1,10)
print(num2)
while True:
 if num1==num2:
 print("win")
 break
 else:
 print("Lost")
```

Suppose that a player wants to play a game which requires him Rs. 1,000 to start. If the current balance in his account is less than Rs. 1,000 he needs to withdraw the extra money from his e-wallet.

Note that if the sum of money in his courrent account and the amount withdrawn is greater than or equal to Rs. 1,000 then he can start playing the game. However if the sum is less than Rs. 1,000 then the program should keep displaying the user the message “You still do not have enough money to start playing.” and keep prompting the user to withdraw money unless it crosses Rs. 1,000. Once ready, i.e. if his current account balance crosses Rs. 1,000, it will display a message “Now, you are ready to play the game.” Your program should also display the account balance and the current amount in the e-wallet.

(consider: initial account balance is Rs. 200 and money in the e-wallet is Rs. 5,000)

Out[3]: True

In [ ]: In [3]:

(Do further improvement by checking if the e-wallet balance becomes NIL, etc.)

```
# amount start=eval(input("enter the
amount"))
if amount_start==1000:
 # play the game

else:
 # amount_withdrawn= eval(input("enter the
amoun"))  # sum=amount_start+amount_wit


import webbrowser
import time
time.sleep(5) # 5 seconds
webbrowser.open("https://nareshit.in/cours
e-schedule/")
```

In [4]: In [ ]:

```
import time
start= time.time()

import random
while True:
 num1 = eval(input("Enter number:- "))
 num2 = random.randint(1,10)
 if(num1 == num2):
 print('You won')
 break
 else:
 print('You lost because num2 = {} Try again till you won'.format(num
```

```
end=time.time()

print("total time taken is:",(end-start))
```

```
Enter number:- 4
You lost because num2 = 3 Try again till you won
Enter number:- 3
You lost because num2 = 1 Try again till you won
Enter number:- 1
You lost because num2 = 3 Try again till you won
Enter number:- 3
You lost because num2 = 1 Try again till you won
Enter number:- 1
You lost because num2 = 9 Try again till you won
Enter number:- 9
You lost because num2 = 10 Try again till you won
Enter number:- 10
You lost because num2 = 9 Try again till you won
Enter number:- 9
You lost because num2 = 5 Try again till you won
Enter number:- 5
You lost because num2 = 4 Try again till you won
Enter number:- 4
You lost because num2 = 7 Try again till you won
Enter number:- 7
You lost because num2 = 9 Try again till you won
Enter number:- 9
You won
total time taken is: 25.78842282295227
```