In [ ]:
```
d4 # 1
d1+d4
```

```
str(1234)[::-1]
```

```
list1=[10,20,5,50]
# sort the list with out
using sorted keyword
sorted(list1)
```

In [ ]: In [ ]:
```
aptitude ===== it
```

```
python ====== logical
```

In [ ]: In [ ]:
```
- basic codes
```

```
- if -else
```

```
- functions
```

```
- try-except
```

```
- for
```

```
- while
```

In [ ]: In [ ]:
```
for i in range(10):
 print(i,end=' ')
```

```
- intialization : start
```

```
- increment/decrement :
increase/decrease
```

```
- condition : where to
stop
```

In [ ]:
```
n1=1234
# extract 4
d1=1234%10 # 4
# 1234 ==== 123
n2=1234//10 # 123
d2=n2%10
d2 # 3
d3 # 2
```

```
- in for loop
range(start,stop,step)
```

In [ ]: In [ ]:
```
# start point
while <condition>:
 # increment or decrement
```

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

```
if :

else :

for :
def :
```

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

```
# start i=0
# step i=i+1
# stop i reached to 9 code
should stop
```

```
i=0
In [ ]:
```

```
while i<10: 0<10 Tr
 print(i,end=' ')
 i=i+1

#i<=5 i>=0 i<=10 i==0 10%2==i
i==False #inf

#write the condition based on
start point and stop point
#start=0
#stop=9


i=0
while i<10: #0>10 =F
 print(i,end=' ')
 i=i+1
In [ ]:
# step-1: i=0 i<10 0<10 True
print(0) i=0+1=1 # step-2: i=1
1<10 True print(1) i=1+1=2

# step-9: i=8 8<10 T pr(8)
i=8+1=9 # step-10 i=9 9<10 T
pr(9) i=9+1=10 # step-11 i=10
10<10 F
```

```
for i in range(10):
 print(i,end=' ')
##################################
####################  i=0
while i<10:
 print(i,end=' ')
 i=i+1


i=0
while i<=9:
 print(i,end=' ')
 i=i+1
```

```
                        i=10 10>=0 T 10 i=11 #
                        11 T 11 12



                        i=0
                        while i<=9: # 0<=9 T
                        print(i,end=' ') #
                        print(0)  i=i+1 # i=1


                        ########################
                        ################ i=0
                        while i<=9:
                         i=i+1 # i=0+1 =1
In [ ]: In [ ]: In [ ]:  print(i,end=' ') # 1

                        i=0
                        while i<10:
                         print(i,end=' ')
                         i=i+1

                        i=0
                        while i<=9:
                         print(i,end=' ')
                         i=i+1


                        i=0
                        while i>=0:
                         print(i,end=' ')
                         i=i+1
                         if i==10:
                         break

                        i=0
                        while i!=10:
                         print(i,end=' ')
                         i=i+1


In [ ]:
# Infinite loop

                        while True
                        In [ ]:
i=0
while i>=0:
 print(i,end=' ')
 i=i+1                  In [ ]: In [ ]: In [ ]:
 if i==10:
 break

# s-1 i=0 0>=0 T 0 i=1
# i=1 1>=0 T 1 i=2 #
i=9 9>=0 T 9 i=10 #
```

```
In [ ]:
if True:
 print("hello")
```

```
i!=10 # asking qn to

the computer i>=0
```

```
i=0
while True:
 print(i,end=' ')
 i=i+1
 if i==20:
 break
```

```
i=0
while i<10:
 print(i,end=' ')
 i=i+1

In [ ]:
```

```
i=0
while i<=9:
 print(i,end=' ')
 i=i+1
```

```
i=0
while i!=10:
 print(i,end=' ')
 i=i+1
```

```
i=0
while i>=0:
 print(i,end=' ')
 i=i+1
 if i==10:
 break
```

```
i=0
while True:
 print(i,end=' ')
 i=i+1
 if i==20:
 break
```

```
i=10
while i>0:
 print(10-i)
 i=i-1
```

In [2]: In [4]:

```
print(summ)
```

```
55
```

In [6]: In [8]:

In [5]:

```
# WAP ask the user print the square of
1 to 5 numbers using while loop # For
loop

for i in range(1,6):
 print(f"The square of {i} is {i*i}")

# you need to work how to print
1,2,3,4,5 using while loop # range(1,6)
3 parts

# intial point
# while <cond>:
# <print>
# i=i+1


i=1
while i<=5:
 print(f"The square of {i} is {i*i}")
 i=i+1
```

```
The square of 1 is 1
The square of 2 is 4
The square of 3 is 9
The square of 4 is 16
The square of 5 is 25
```

```
# wap ask the user get 5 random numbers
# and print the square of the numbers
using while loop import random
i=1
while i<=5:
 num=random.randint(1,50)
 print(f"The square of {num} is
{num*num}")
 i=i+1
```

```
The square of 20 is 400
The square of 22 is 484
The square of 25 is 625
The square of 2 is 4
The square of 47 is 2209
```

```
# WAP print sum of first 10 natural
numbers
summ=0
for i in range(1,11):
 summ=summ+i
```

In [10]: In [ ]:

```
summ=0
i=1
while i<=10:
 summ=summ+i
 i=i+1

print(summ)
```

```
55
```

```
# WAP find the number of divsiors of a
given number using while loop # num 10
divisors loop 10 times
count=0
num=eval(input("enter the number:"))
for i in range(1,num+1):
 if num%i==0:
 count=count+1
print(count)
```

```
enter the number:10
4
```

```
count=0
num=eval(input("enter the number:"))
```

```
i=1
while i<=num:
 if num%i==0:
 count=count+1
 i=i+1

print(count)

enter the number:10
4


# WAP ask the get a random number
# ask the user get a number
# if usernumber==Random number print
(won)
# else: print(lost)
# give 3 chances use while loop
In [13]: In [11]:
```

```
import random
i=0
while i<3:
 num=eval(input('guess the number : '))
 random_num=random.randint(1,10)
 print('random number is :',random_num)
 if random_num==num:
 print('you won')
 break
 else:
 print('you lost')
 i=i+1

guess the number : 8
```

```
random number is : 1
you lost
guess the number : 9
random number is : 2
you lost
guess the number : 3
random number is : 7
you lost


num=eval(input('guess the number : '))
random_num=random.randint(1,10)
print('random number is :',random_num)
if random_num==num:
 print('you won')
else:
 print('you lost')

guess the number : 4
random number is : 5
you 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) (Do further

improvement by checking if the e-wallet balance

becomes NIL, etc.)

```
 In [ ]: using for loop ==== infinite loop not possible
             using while loop === while True
```

```
if balance>1000:
 print()
else:
```