```python
In [1]: #while loop= a statement that will execute the code as long as its condition remains true
        #example for infinity loop
        while 1==1:
            print('hello world')

        hello world
```

```python
In [4]: #see the loop never stop we have to give the code a stop condition
        name = ''
        while len(name) ==0:
            name = input('enter your name:')
        print('hello '+name)

        enter your name:
        enter your name:
        enter your name:
        enter your name:Aziz
        hello Aziz
```

```python
In [5]: #example for while loop that count to 10
        x = 0
        while not x==10:
            x +=1
            print(x)

        1
        2
        3
        4
        5
        6
        7
        8
        9
        10
```

```python
In [11]: #example for backward count
         x = 10
         while not x==0:
             x -=1
             print(x)

         9
         8
         7
         6
         5
         4
         3
         2
         1
         0
```

```python
In [12]: #example for while that run x time that you choice
         x = 0
         name = ''
         while not x==3:
             name = input('enter your name:')
             x +=1
             print('hello '+name+' your number is:'+str(x))

         enter your name:Aziz
         hello Aziz your number is:1
         enter your name:Ali
         hello Ali your number is:2
         enter your name:Nora
         hello Nora your number is:3
```