WHILE LOOP

In [1]:
```python
i=1
```

In [2]:
```python
while i<=5:
    print('Data Science')
    i=i+1
    print()
```

Data Science

Data Science

Data Science

Data Science

Data Science

In [11]:
```python
i=1
while i<=5:
    print('Data Science:',i)
    i=i+1
    print(end='')
```

```
Data Science: 1
Data Science: 2
Data Science: 3
Data Science: 4
Data Science: 5
```

In [13]:
```python
i=5
while i>0:
    print('Data Science',i)
    i=i-1
    print(end='')
```

```
Data Science 5
Data Science 4
Data Science 3
Data Science 2
Data Science 1
```

In [15]:
```python
i = 1
while i<=5:
    print(' hello', end = "") # when we mention end then new line will no
    j = 1
    while j<=4:
        print(' world', end="")
        j = j + 1
```

```
        i = i + 1
        print()
```

```
hello world world world world
hello world world world world
hello world world world world
hello world world world world
hello world world world world
```

In [16]:
```python
#  while loop usig some numbers
i = 1

while i <= 2 :
    j = 0
    while  j <= 2 :
        print(i*j, end=" ")
        j += 1
    print()
    i += 1
```

```
0 1 2
0 2 4
```

In [26]:
```python
#  while loop usig some numbers
i = 1

while i <= 5:
    j = 1
    while  j <= 5:
        print(i*j, end="   ")
        j += 1

    print()
    i += 1

else:
    print('condition is not match')
```

```
1    2    3    4    5
2    4    6    8    10
3    6    9    12   15
4    8    12   16   20
5    10   15   20   25
condition is not match
```

In [27]:
```python
name='helloworld'
for i in name:
    print(i)
```

```
h
e
l
l
o
w
o
r
l
d
```

In [28]:
```python
for i in range(10,50,5):
    print (i)
```

```
10
15
20
25
30
35
40
45
```

In [39]:
```python
#divisible by 3
for i in range(10,50,5):
    if(i%3==0):
        print ('number divisible  by 3',i)
    else:
        print ('no doesnot divisible by 3',i)
```

```
number divisible  by 3 15
number divisible  by 3 30
number divisible  by 3 45
no doesnot divisible by 3 45
```

In [ ]:

continue statement

print all letters except 'd' 's' 'e'

In [40]:
```python
for i in 'hello data science':

    if i == 'd' or i == 's' or i=='e':
        continue
    print(i)
```

```
h
l
l
o

a
t
a

c
i
n
c

 b
```

break statement

```python
In [46]:  for i in 'helloworld':

              # break the loop as soon it sees 'w'
              # or 'r'
              if i == 'w' or i == 'r':
                  break

              print(i)
```

```
h
e
l
l
o
```

pass statement

```python
In [47]:  for i in 'data science':
              pass
          print(i)
```

```
e
```

else statement with for loop

```python
In [48]:  for i in range(1, 4):
              print(i)
          else:  # Executed because no break in for
              print("No Break\n")
```

```
1
2
3
No Break
```

chocolates from vending machine

In [49]:
```python
x = int(input('How many chocolates you want:?'))

i = 1
while i<=x:
    print('take chocolate no.', i)
    i += 1
```

```
take chocolate no. 1
take chocolate no. 2
take chocolate no. 3
take chocolate no. 4
take chocolate no. 5
take chocolate no. 6
```

if chocolates are limited in the vending machine

In [54]:
```python
remaining_chocolates=6
x = int(input('How many chocolates you want:?'))

i = 1
while i<=x:
    print('take chocolate no.', i)
    if i== remaining_chocolates:
        print('sorry,out of stock')
        break
    i += 1
```

```
take chocolate no. 1
take chocolate no. 2
take chocolate no. 3
take chocolate no. 4
```

In [57]:
```python
nums = [12,15,18,21,26, 30,40]

for n in nums:
    if n % 5 == 0:
        print(n)
```

```
15
30
40
```

In [ ]: