In [2]:
```
if True:
    print('Data Science')
```

```
Data Science
```

In [6]:
```
if False:
    print('Data Science')
print('Bye for now')
```

```
Bye for now
```

In [7]:
```
if True:
    print('Data Science')
else:
    print('Bye for now')
```

```
Data Science
```

In [8]:
```
if False:
    print('Data Science')
else:
    print('Bye for now')
```

```
Bye for now
```

Write a program to print even number

In [9]:
```
x=4
r=x%2
if r==0:
    print('Even Number')
```

```
Even Number
```

In [10]:
```
x=5
r=x%2
if r==0:
    print('Even Number')
if r==1:
    print('Odd Number')
```

```
Odd Number
```

In [12]:
```
x=5
r=x%2
if r== 0:
   print('Even Number')
else:
    print('Odd Number')
```

```
Odd Number
```

In [13]:
```
x=4
if x==1:
    print('One')
if x==2:
```

```
    print('Two')
if x==3:
    print('Three')
if x==4:
    print('Four')
```

```
Four
```

Nested Loop

In [16]:
```
x=3
r= x%2
if r==0:
    print('Even Number')
if r==0:
   print('greater number')
else:
    print('Odd Number')
```

```
Odd Number
```

In [19]:
```
x = 4
r = x % 2
if r == 0:
        print('Even Number')
if x > 5:
      print('greater number')
else:
    print('Odd Number')
```

```
Even Number
Odd Number
```

In [34]:
```
x=4
r=x%2
if r==0:
    print('Even Number')
    if x>5:
        print('greater n umber')
else:
    print('Number is lesser number')
```

```
Even Number
```

In [35]:
```
x=6
r=x%2
if r==0:
    print('Even number')
    if x>5:
        print('greater number')
else:
    print('Odd number')
```

```
Even number
greater number
```

In [37]:
```
x = 4
if (x == 1):
     print('One')
elif (x == 2):
   print('Two')
elif (x == 3):
   print('Three')
elif (x == 4):
   print('Four')
```

```
Four
```

In [38]:
```
if (x == 1):
    print('One')
elif (x == 2):
     print('Two')
elif (x == 3):
    print('Three')
elif (x == 4):
   print('Four')
else:
   print('Number not found')
```

```
Four
```

In [39]:
```
print('Data Science')
print('Data Science')
print('Data Science')
print('Data Science')
print('Data Science')
```

```
Data Science
Data Science
Data Science
Data Science
Data Science
```

In [42]:
```
i = 5
while i >= 1:
    print("Data Science")
    i = i-1
```

```
Data Science
Data Science
Data Science
Data Science
Data Science
```

In [52]:
```
i=1
while i<=5:
    print('Data Science: ',i)
    j=1
    while j<=4:
        print('Technology')
        j=j+1
```

```
    i = i+1
```

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

In [54]:
```
i=1
while i<=5:
    print('Data Science: ',end='')
    j=1
    while j<=4:
        print('Technology',end='')
        j=j+1
        i=i+1
        print()
```

```
Data Science: Technology
Technology
Technology
Technology
Data Science: Technology
Technology
Technology
Technology
```

In [15]:
```
i=1
while i<= 2:
    j = 0
    while j<=2:
        print(i*j)
        j+=1
    print()
    i += 1
```

```
0
1
2

0
2
4
```

In [18]:
```
i=1
while i<=4:
    j=0
    while j<=3:
        print(i*j,end='')
        j+=1
    print()
    i+=1
```

```
0123
0246
0369
04812
```

In [19]:
```
name1=[1,3,5,'hello']
for i in name1:
    print(i)
```

```
1
3
5
hello
```

In [21]:
```
for i in  range(5):
     print(i)
```

```
0
1
2
3
4
```

In [26]:
```
for i in range (1,51):
    if i % 5 == 0:
        print(i)
```

```
5
10
15
20
25
30
35
40
45
50
```

In [27]:
```
for i in range(1,11):
    if i==6:
```

```
        break
    print(i)
```

```
1
2
3
4
5
```

In [28]:
```
for i in range (1,11):
    if i == 8:
        continue
    print(i)
```

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

In [29]:
```
for i in range(1,11):

```

```
  Cell In[29], line 2

    ^
_IncompleteInputError: incomplete input
```

In [31]:
```
for i in range(1,11):
   pass
```

Write a code user asking from the wending machine for a chocolate

In [32]:
```
x=int(input("How many chocolates you want:"))

i=1
while i<=x:
    print('chocolate')
    i+=1
```

```
chocolate
chocolate
chocolate
chocolate
chocolate
```

what if the wending machine has only 5 chocolates

In [33]:
```
ave=5

x=int(input("How many chocolates you want:"))

i=1
while i<=x:
    print('chocolate')
    i+=1
```

```
chocolate
chocolate
chocolate
chocolate
chocolate
chocolate
chocolate
chocolate
chocolate
```

In [57]:
```
ava_choco=5

x = int(input("How many chocolates you want:"))
i=1
while i<= x:
     if i>ava_choco:
         break
     print('chocolate')
     i +=1
print('Bye for now')
```

```
chocolate
chocolate
chocolate
chocolate
chocolate
Bye for now
```

In [58]:
```
ava_choco=5
x=int(input("How many chocolates you want:"))
i=1
while i<=x:
    if i>ava_choco:
        print('Out of Stock')
        break
    print('chocolates')
    i+=1
print('Bye for now')
```

```
chocolates
chocolates
chocolates
chocolates
chocolates
Out of Stock
Bye for now
```

In [62]:
```
for i in range(1,51):
    if i% 3==0:
        print(i)
```

```
3
6
9
12
15
18
21
24
27
30
33
36
39
42
45
48
```

In [63]:
```
for i in range (1,51):
    if i % 3==0 or  i% 5==0:
        continue
    print(i)
#print(end)
```

```
1
2
4
7
8
11
13
14
16
17
19
22
23
26
28
29
31
32
34
37
38
41
43
44
46
47
49
```

For Else

In [64]:
```
nums=[12,15,18,21,26,30,40]
for num in nums:
    if num % 5 == 0:
        print(num)
```

```
15
30
40
```

In [65]:
```
nums=[12,15,18,21,26,30,40]
for num in nums:
    if num % 5== 0:
        print(num)
        break
```

```
15
```

In [66]:
```
nums=[7,14,18,21,23,27,29]
for num in nums:
    if num % 5 ==0:
        print(num)
        break
else:
    print("Number is not divisible")
```

```
Number is not divisible
```

Print Pattern in Python

In [67]:
```
print('####')
print('####')
print('####')
print('####')
```

```
####
####
####
####
```

In [68]:
```
for i in range (1,5):
    i =i+1
    print('####')
```

```
####
####
####
####
```

In [69]:
```
for i in range (1,10):
    i=i+1
    print('# # # #')
```

```
# # # #
# # # #
# # # #
# # # #
# # # #
# # # #
# # # #
# # # #
# # # #
```

In [70]:
```
for i in range(1,5):
    if i<=5:
        print('# # # #')
```

```
# # # #
# # # #
# # # #
# # # #
```

In [71]:
```
for j in range(4):
    print('#')
```

```
#
#
#
#
```

In [72]:
```
for j in range (4):
    print('#',end=" ")
```

```
# # # #
```

In [73]:
```
for j in range(4):
    print('#', end= " ")
print()
for j in range(4):
    print('#',end=" ")
```

```
# # # #
# # # #
```

In [74]:
```
for i in range (4):
    for j in range(i+1):
        print('#',end =' ')
    print()
```

```
#
# #
# # #
# # # #
```

How to check the number is prime

In [75]:
```
num=14
for i in range(2,num):
    if num% i ==0:
```

```
        print('Not a prime number')
        break
else:
    print("Prime number")
```

```
Not a prime number
```

In [76]:
```
num=7
for i in range(2,num):
    if num%i==0:
        print('Not a prime number')
        break
else:
    print("Prime Number")
```

```
Prime Number
```

In [77]:
```
num=13
for i in range (2,num):
    if num % i==0:
        print("Not a prime number")
        break
else:
    print("prime number")
```

```
prime number
```