In [1]:
```
for i in range(1,5):
    print(i)
```

```
1
2
3
4
```

In [2]:
```
for i in range(1,10,2):
    print(i)
```

```
1
3
5
7
9
```

In [3]:
```
#Looping on a string

my_string = "Mary had a little lamb"

for alphabet in my_string:
    print(alphabet)
```

```
M
a
r
y

h
a
d

a

l
i
t
t
l
e

l
a
m
b
```

In [4]:
```
#pattern to print-

*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

```
  File "<ipython-input-4-0f63e2d8c301>", line 3
    *
     ^
SyntaxError: invalid syntax
```

In [15]:
```
str1=''
for i in range(0,9):
    if i<5:
        str1 += '* '
        print(str1)
    elif i>4:
        str1 = str1[:-2]
        print(str1)
```

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

In [23]:
```
vowels =''
for alphabet in my_string:
    if alphabet in 'aeiou':
        vowels += ' ' + alphabet
print(vowels)
```

```
 a a a i e a
```

In [27]:
```
my_string = "Mary had a little lamb"

for n,alphabet in enumerate(my_string):
    print(alphabet, n)
```

```
M 0
a 1
r 2
y 3
  4
h 5
a 6
d 7
  8
a 9
  10
l 11
i 12
t 13
t 14
l 15
e 16
  17
l 18
a 19
m 20
b 21
```

In [28]:
```
nums = '838848237890237388221'
all_even=''
all_odd = ''
for number in nums:
    if int(number)%2 == 0:
        all_even += number
    else:
        all_odd += number

print('All Evens are : '+ all_even + ' & All odds are : '+ all_odd)
```

```
All Evens are : 8884828028822 & All odds are : 33793731
```

In [29]:
```
list_of_inventories = ['Apple', 'Banana', 'Potato', 'Mango', 'Onion', 'Toothpa
ste']
fruits = ['Apple','Banana','Mango','Orange','Strawberry']
vegetables = ['Potato', 'Onion','Cucumber', 'Celery']
```

In [30]:
```
#count of fruits in inventory list
count_fruits = 0
#count of vegetables in inventory list
count_veg = 0
for item in list_of_inventories:
    print(item)
    if item in fruits:
        count_fruits+=1
    elif item in vegetables:
        count_veg +=1
    else:
        continue
print(count_fruits)
print(count_veg)
```

```
Apple
Banana
Potato
Mango
Onion
Toothpaste
3
2
```

In [31]:
```
sentence = "Is Python simpler than R ?"
for word in sentence.split():
    print(word)
```

```
Is
Python
simpler
than
R
?
```

In [32]:
```
#sentence check
tweet = '#beautiful #morning it is looking good'

for word in tweet.split():
    if word.startswith('#'):
        print(word[1:])
```

```
beautiful
morning
```

In [33]:
```
students_data = {1:['Shivam Bansal', 24] , 2:['Udit Bansal',25], 3:['Sonam Gup
ta', 26], 4:['Saif Ansari',24], 5:['Huzefa Calcuttawala',27]}
```

In [34]:
```
for key, val in students_data.items():
    print(key, val)
```

```
1 ['Shivam Bansal', 24]
2 ['Udit Bansal', 25]
3 ['Sonam Gupta', 26]
4 ['Saif Ansari', 24]
5 ['Huzefa Calcuttawala', 27]
```

In [35]:
```
for key in students_data.keys():
    print(key)
```

```
1
2
3
4
5
```

In [36]:
```
for val in students_data.values():
    print(val)
```

```
['Shivam Bansal', 24]
['Udit Bansal', 25]
['Sonam Gupta', 26]
['Saif Ansari', 24]
['Huzefa Calcuttawala', 27]
```

In [37]:
```
count = 0
for key, val in students_data.items():
    if val[1]<25:
        count+=1

print(count)
```

```
2
```

In [38]:
```
#while loop
start =20
total= 0
while start<51:
    total+=start
    start+=1
    print(start)

print(total)
```

```
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
1085
```

In [24]:
```
for i in range(100):
    print(i)
    if i>50:
        break
        print("Hello")
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
```

In [25]:
```
for i in range(100):
    print(i)
    if i>50:
        continue
        print("Hello")
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
```

```
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
```

In [26]:
```
for i in range(100):
    print(i)
    if i>50:
        pass
        print("Hello")
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
Hello
52
Hello
53
Hello
```

```
54
Hello
55
Hello
56
Hello
57
Hello
58
Hello
59
Hello
60
Hello
61
Hello
62
Hello
63
Hello
64
Hello
65
Hello
66
Hello
67
Hello
68
Hello
69
Hello
70
Hello
71
Hello
72
Hello
73
Hello
74
Hello
75
Hello
76
Hello
77
Hello
78
Hello
79
Hello
80
Hello
81
Hello
82
```

```
Hello
83
Hello
84
Hello
85
Hello
86
Hello
87
Hello
88
Hello
89
Hello
90
Hello
91
Hello
92
Hello
93
Hello
94
Hello
95
Hello
96
Hello
97
Hello
98
Hello
99
Hello
```

In [39]:
```
d = {0: 'Fish', 1: 'Bird', 2: 'Mammal'}
for i in d:
    print(i)
```

```
0
1
2
```

In [40]:
```
d = {0, 1, 2}
for x in d:
    print(d.add(x))
```

```
None
None
None
```