In [1]:
```
# for loop
```

In [2]:
```
a = ["banana", "apple", "microsoft"]
```

In [3]:
```
# we are required to print each element seperately
```

In [4]:
```
# 1st Method- a little troublesome
print(a[0])
print(a[1])
print(a[2])
```

```
banana
apple
microsoft
```

In [5]:
```
# 2nd Method - Faster
for element in a:
    print(element)
```

```
banana
apple
microsoft
```

In [7]:
```
# to print multiple times
for element in a:
    print(element)
    print(element)
```

```
banana
banana
apple
apple
microsoft
microsoft
```

In [8]:
```
# the term element can be replace with any term or letter

for elem in a:
    print(elem)
```

```
banana
apple
microsoft
```

In [9]:
```
for e in a:
    print(e)
```

```
banana
apple
microsoft
```

In [10]:
```
b = [20, 10, 5]
```

In [2]:
```
# print multiple in the oder of 1,2, 3
a = ["apple", "banana", "republic"]

for i in range(len(a)):
    for j in range(i + 1): # 0+1=1, 1+1=2, 2+1=3
        print(a[i])
```

```
apple
banana
banana
republic
republic
republic
```

In [17]:
```
# to get the sum of the list
b = [20, 10, 5]
total = 0
for e in b:
    total = total + e
print(total)
```

```
35
```

In [19]:
```
# create a list of values ranging from one number to the other=== use range comar
# to create a list of the numers in range ==== use list command
# assign the new list to a varible

# Step 1 == range(1, 5)
# Step 2 == list(range(1, 5))
# Step 3 == c = list(range(1,5))

c = list(range(1,5))
print(c)
```

```
[1, 2, 3, 4]
```

In [21]:
```
# Using for loop
for i in range(1, 5):
        print(i)
```

```
1
2
3
4
```

In [25]:
```
total = 0
for n in range(1, 4):
    total = total + n
print(total)
```

```
6
```

In [27]:
```
# shortenin g the code (total = total +n)

total = 0
for n in range(1, 4):
    total += n
print(total)
```

```
6
```

In [28]:
```
print(list(range(1,8)))
```

```
[1, 2, 3, 4, 5, 6, 7]
```

In [30]:
```
# Modlus operator=== its finding out the reminder after dividing
# the percentage sign is used, %
# eg dividing 5 by 3 we get 1 remainder 2

print(5 % 3)
```

```
2
```

In [34]:
```
# Hence to get multiple of a number in a list we use the modulus operator
# eg to get values with the multiple of 2 in the range(1, 8)

for i in range(1, 8):
    if i % 2 == 0:
        print(i)
```

```
2
4
6
```

In [35]:
```
# To find the sum of values of multiple of 3 in the range(1,  8)
t3 = 0
for e in range(1, 8):
    if e % 3 == 0:
        t3 += e
print(t3)
```

```
9
```

In [37]:
```
# Quiz - Compute all positve  multiples of 3 and 5 that are less than 100
print(list(range(1, 100)))
```

```
[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 [38]:
```
t3=0
t5=0
for a in range(1, 100):
    if a % 3 == 0:
        t3 += a
    if a % 5 == 0:
        t5 += a
print(t3)
print(t5)
c = [t3, t5]
t6 = 0
for b in c:
    t6 += b
print(t6)
```

```
1683
950
2633
```

In [3]:
```
t3=0
for a in range(1, 100):
    if a % 5 == 0 or a % 3 == 0:
        t3 += a
print(t3)
```

```
2318
```

In [45]:
```
t3=0
for a in range(1, 100):
    if a % 3 == 0 and a % 5 == 0:
        t3 += a
print(t3)
```

```
315
```

In [4]:
```
t3=0
for a in range(1, 100):
    if a % 15 == 0:
        t3 += a
print(t3)
```

```
315
```

In [1]:
```
t3=0
for a in range(1, 100):
    if a % 5 == 0:
        t3 += a
    elif a % 3 == 0:
        t3 += a

print(t3)
```

```
2318
```

In [ ]: