for_while_loops

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0.1 Loops

loops are control flow statements in which block of code are execured in repeat form loops are use for repeative operation over data like on string list ### Types of Loops **For loop we use for loop used to iterative over a sequence such as list string tuples and execute the block of the code in sequence** While loop we use while loop used to execute the block of code as long as the condition is True and in this loop we dont know when loop will end

```python
[2]: menue = {"egg","bread","oil","sugar"}
     for eat in menue:
         print(menue)
```

```
{'sugar', 'oil', 'egg', 'bread'}
{'sugar', 'oil', 'egg', 'bread'}
{'sugar', 'oil', 'egg', 'bread'}
{'sugar', 'oil', 'egg', 'bread'}
```

```python
[6]: menue = {"egg","bread","oil","sugar"}
     for eat in menue:
         print(eat)
     if "egg" in menue:
         print("lets make toast")
     else:
         print("we have egg")
```

```
sugar
oil
egg
bread
lets make toast
```

```python
[8]: menue = {"egg","bread","oil","sugar"}
     for eat in menue:
         print(f"{eat} is available in resturent")
```

```
sugar is available in resturent
oil is available in resturent
egg is available in resturent
bread is available in resturent
```

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

```
1
3
5
7
9
```

```python
[18]: for i in range(10):
          print(i)
```

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

```python
[31]: numbers=[2,4,6,8,10,12]

      #for num in numbers:
      total =sum(numbers)
      print(total)
      for num in numbers:
          print(num+2)
```

```
42
4
6
8
10
12
14
```

```python
[61]: eating_fruits=["apple","mango","asad","ali"]
      for fruit in eating_fruits:
        print(fruit)
        if fruit == "asad":

              break
```

```
apple
```

mango
asad

```
[55]: eating_fruits = ["apple", "mango", "asad", "ali"]

      for fruit in eating_fruits:
          print(fruit)
          if fruit == "asad":
              break  # Stop the loop once "asad" is printed
```

apple
mango
asad

```
[ ]: python_ka_chilla=0
     while python_ka_chilla<40:
         print("you are not data scientist")
         python_ka_chilla+=1
     print("you are DS")
```

```
[1]: total = 0
     num = 1

     while total < 20:
         total += num
         print(f"Added {num}, total is now {total}")
         num += 1
```

Added 1, total is now 1
Added 2, total is now 3
Added 3, total is now 6
Added 4, total is now 10
Added 5, total is now 15
Added 6, total is now 21

```
[3]: total = 0
     num = 2

     while total < 20:
         total += num
         print(f"Added {num}, total is now {total}")
         num += 1
```

Added 2, total is now 2
Added 3, total is now 5
Added 4, total is now 9
Added 5, total is now 14

Added 6, total is now 20