

What are while loops?

While loops will execute a code while the condition remains true.

syntax:

While condition is true:
 execute this statement

else, elif statement can be combined

```
In [3]: 1 s = 3
        2
        3 while s < 7:
        4     print(f'The current value of s is {s}')
        5     s = s + 1
```

```
The current value of s is 3
The current value of s is 4
The current value of s is 5
The current value of s is 6
```

```
In [4]: 1 s = 3
        2
        3 while s < 7:
        4     print(f'The current value of s is {s}')
        5     s += 1
```

```
The current value of s is 3
The current value of s is 4
The current value of s is 5
The current value of s is 6
```

NOTE: `s += 1` is a shorter way to write `s = s + 1` (as show above)

```
In [5]: 1 s = 3
        2
        3 while s < 7:
        4     print(f'The current value of s is {s}')
        5     s += 1
        6 else:
        7     print('s is not less than 5')
```

```
The current value of s is 3
The current value of s is 4
The current value of s is 5
The current value of s is 6
s is not less than 5
```

```
In [6]: 1 s = 50
        2
        3 while s < 7:
        4     print(f'The current value of s is {s}')
        5     s += 1
        6 else:
        7     print('s is not less than 5')
```

```
s is not less than 5
```