What is a For Loop?

- A **for loop** is used when we want to run a block of code a **specific number of times**.
- It is commonly used with **range()**, **lists**, **tuples**, **strings**, and other sequences.

Syntax:

for variable in sequence:
    # code block

- variable → takes value one by one from the sequence.
- sequence → can be **range()**, list, tuple, string, etc.

Difference Between While Loop and For Loop

- **While Loop** → Used when we **don't know** how many times to run (condition-based).
- **For Loop** → Used when we **know** how many times to run (sequence/range-based).

Key Points to Remember

- **range(start, end, step**) is commonly used with for loops.
- Start index is inclusive, End index is exclusive.
- For loop is best when working with lists, strings, or when repetition is fixed.