Timeline

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Diagram

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**Q1**:**How does the for-loop work?**

**A**: The for-loop executes the indented lines n-times, where n is the number of items in the list that is being iterated.

**Q2: What is the difference between a while loop and a for-loop?**

**A**: A while loop iterates as long as the while-condition is True. A for-loop iterates that many times as there are items in the list that is being iterated.

**Q3: What are some other examples when we would need to use a for-loop?**

A: A for-loop is generally needed when you want to perform the same manipulation on multiple objects (e.g., capitalizing strings of a list). Another example of when you would need to use a for-loop is if you wanted to convert a video to grayscale. A video is made of hundreds or thousands of image frames. You would need to use a for-loop to iterate over the video frames and apply a grayscale effect to each frame. Another example would be to iterate over the pages of your blog website to extract their user comments, etc.

**Q4: What is the difference between match-case and if-else?**

Match-case is usually to match a string out of a predefined number of strings (e.g., a series of commands, months of the year, etc.).  If-else conditionals check more complex conditions. We will cover if-else conditionals later in the course. There you will understand the exact difference.