



Interview Questions : For Loop in Python



Objective:

To assess the candidate's understanding of Python's `for` loop, its syntax, behaviour with different data structures, and use in problem-solving scenarios.



Beginner-Level Questions

1. What is a `for` loop in Python and how does it work?
2. What types of objects can you iterate over using a `for` loop in Python?
3. Write a `for` loop to print numbers from 1 to 5.
4. What is the difference between `for` and `while` loops in Python?
5. Can you iterate over a string using a `for` loop? Give an example.
6. How does the `range ()` function work with `for` loops?
7. What will be the output of this code?

```
for i in range(3):  
    print(i)
```



Intermediate-Level Questions

8. What is the output of `range (1 , 10 , 2)` in a `for` loop?
9. How do you loop through a dictionary using a `for` loop?
10. What are nested `for` loops? Give a use case.
11. Can you modify a list while iterating over it using a `for` loop? Why or why not?
12. How do you use `enumerate ()` in a `for` loop? Provide an example.
13. What is the use of `break` and `continue` inside a `for` loop?
14. Explain how to use `else` with a `for` loop in Python.



Advanced-Level Questions

15. How would you use a `for` loop to flatten a 2D list?
16. How does Python internally implement `for` loops for iterables?
17. What are list comprehensions, and how are they related to `for` loops?
18. Write a `for` loop that finds all prime numbers from 1 to 100.
19. Can you iterate over multiple sequences in parallel using a `for` loop? (Hint: `zip`)
20. What happens if you use `break` and `else` together in a `for` loop? Show an example.



Scenario-Based Questions

21. Write a `for` loop to count the frequency of each character in a string.
22. Given a list of dictionaries (each representing a student), use a `for` loop to print names of all students who passed.
23. How would you use a `for` loop to reverse a string without using slicing?
24. Use a `for` loop to print the following pattern:

1

1 2

1 2 3

1 2 3 4
25. Write a `for` loop using `range()` in descending order from 10 to 1.

