



# Interview Questions : List in Python



## Objective:

To assess a candidate's understanding of list creation, manipulation, built-in functions, and advanced operations using Python lists.



## Beginner-Level Questions

1. What is a list in Python? How is it different from an array?
2. How do you create a list in Python? Give an example.
3. How can you access elements from a list using indexing and slicing?
4. How do you add an element to a list? Difference between `append()` and `insert()`?
5. How do you remove an element from a list? List different methods.
6. What happens if you try to access an index that doesn't exist in a list?
7. Can a list contain elements of different data types? Give an example.



## Intermediate-Level Questions

8. What is the difference between `remove()`, `pop()`, and `del` in lists?
9. How do you find the length of a list?
10. How do you loop through a list? Show both `for` and `while` loops.
11. What is list comprehension? Write an example to generate squares of numbers from 1 to 5.
12. How do you sort a list? What is the difference between `sort()` and `sorted()`?
13. How do you reverse a list in Python?
14. What are nested lists? How do you access elements inside them?
15. Explain how slicing works in Python lists. What does `list[::-1]` do?



### Advanced-Level Questions

16. What are some performance considerations when using lists in Python?
17. How would you remove duplicates from a list while maintaining order?
18. What is the difference between shallow and deep copy in lists? How do you implement them?
19. What are the differences between list and tuple in Python?
20. Can you modify a list while iterating through it? What's the best practice?



### Scenario-Based Questions

21. Write a program to merge two lists and remove duplicates.
22. Given a list of integers, write Python code to separate even and odd numbers.
23. How would you flatten a nested list in Python?
24. Write a program to find the second largest element in a list.
25. Write a program that rotates a list to the right by n positions.