

# Python List Mastery Practice Questions

## Beginner (Q110)

1. Create a list of 10 integers. Print the first and last elements.
2. Add 100 to the end of the list using `append()`.
3. Insert 55 at position 5.
4. Delete the 3rd item in the list using `del`.
5. Remove the number 55 from the list using `remove()`.
6. Pop the last item and print it.
7. Reverse the list using slicing.
8. Slice the list to get the middle 4 elements.
9. Print all even-indexed elements using a loop.
10. Create a list of 5 inputs from user and print it.

## Intermediate (Q1120)

11. Given a list of numbers, print the sum of all even numbers.
12. Find the max and min values in the list without using `max()` or `min()`.
13. Count how many times 10 occurs in a list.
14. Replace all even numbers in a list with 'EVEN'.
15. Create a list of squares from 1 to 20 using list comprehension.
16. Print only the unique numbers from a list.
17. Find the second largest number in the list.
18. Sort the list in ascending order without using `.sort()`.
19. Merge two lists and remove duplicates.
20. Create a list of only words that start with 'A' from a sentence.

## Advanced Logic (Q2130)

21. Remove duplicates from a list without using `set()`.

22. Rotate a list right by k steps (e.g. [1,2,3,4,5], k=2 [4,5,1,2,3]).
23. Find all pairs in a list that sum to a given number.
24. Check if a list is a palindrome.
25. Find the frequency of each element and store it in a dictionary.
26. Find the common elements in two lists without using sets.
27. Flatten a nested list like [[1,2],[3,4],[5]] to [1,2,3,4,5].
28. Generate a list of prime numbers between 1 and 100.
29. Write a program that takes a list of marks and prints grade-wise result (like  $\geq 90$ : A, 80-89: B, etc.).
30. Group elements in a list by their frequency.