**Loops & List Comprehension**

🔁 While Loop – 8 Questions

1. Print numbers from 1 to 10 using a while loop.

2. Print the sum of all even numbers between 1 and 50 using a while loop.

3. Create a while loop that prints all digits of a given number (e.g., 1234 → 1, 2, 3, 4).

4. Keep asking the user to input a number until they enter 0. Then print the total of all entered numbers.

5. Reverse a number using while loop (e.g., 123 → 321).

6. Print the multiplication table of a number (e.g., 5 × 1 to 5 × 10) using a while loop.

7. Use a while loop to count how many digits are in a given number.

8. Find the factorial of a number using a while loop.

🔂 For Loop – 9 Questions

9. Print the square of all numbers from 1 to 10 using a for loop.

10. Loop through a list of names and print each name with "Hello, " prefix.

11. Print all characters in the string "DataScience".

12. Create a loop that prints only the vowels from a given string.

13. Print all prime numbers between 10 and 50 using for loop.

14. Count how many even and odd numbers are in a given list.

15. Print the Fibonacci series up to 10 elements using for loop.

16. Loop through a nested list and print all inner elements.

17. Print a pattern using loops (e.g., triangle of `\*`).

🧠 List Comprehension – 8 Questions

18. Create a list of squares from 1 to 10 using list comprehension.

19. Create a list of even numbers between 1 and 50 using list comprehension.

20. From a given list of words, make a new list with words longer than 4 letters.

21. Convert a list of temperatures in Celsius to Fahrenheit using list comprehension.

23. From a list of numbers, create a list of strings like: "Even" or "Odd".

24. Make a list of all characters in a string that are not vowels.

25. Given a list of names, create a list of only uppercase names using list comprehension.