Logic Building Questions

Lambda Expressions, Functional Interfaces and Stream API

1.   **Custom Functional Interface**
You are asked to create a custom functional interface TriFunction that takes three parameters of any type and returns a result.

- Write the functional interface definition.

- Use it in a lambda expression to concatenate three strings.

2.   **Custom Sorting with Lambda**
Sort a list of employees (List<Employee>) by their salary in descending order using a lambda expression.

- If two employees have the same salary, sort them by their names alphabetically.

3.   **Comparator with Lambda**
You are tasked with sorting a list of employees based on their salary (descending).

- Define an Employee class with name and salary fields.

- Use a lambda expression to implement a Comparator.

- Sort the list and print the top 3 salaries.

4. **Functional Programming in Collections**

- Given a map of student names and their scores, use a lambda expression to:

    o   Filter students with scores above a certain threshold.

    o   Print their names in uppercase.

5.   **Exception Handling in Lambdas:** You have a List<String> where some elements are null. Write a lambda expression to:

- Safely handle null values while processing the list.

- Print the lengths of non-null strings.