

**Title:** Stream API and Lambda Expressions in Java

**Duration:** 2 hours

**Objective:** To develop a solid understanding of the Stream API and Lambda expressions in Java.

**Materials Needed:**

- Java development environment (IDE such as IntelliJ IDEA or Eclipse)
- Sample CSV file (employee\_data.csv)

**Task Overview:** You have an employee\_data.csv file containing employee data. The file includes employee information such as their names, addresses, ages, designations, and remuneration.

Perform the following tasks-

1. Read the data from the CSV file into a List of Employee objects.
2. Filtering by Age: Filter employees who are older than 30 years.
3. Grouping by Postal Code: Group the employees by their postal code.
4. Calculating Average Remuneration: Calculate and display the average remuneration of all employees.
5. Finding Highest Remuneration: Find and display the employee with the highest remuneration.
6. Checking for a Manager: Use matching to check if at least one employee has the designation "Manager."
7. Sorting by Age: Sort the employees by age in ascending order and then descending order.
8. Finding the Youngest Employee: Find and display the youngest employee using the min operation.
9. Counting Employees in Uptown District: Count the number of employees working in the "Uptown" district.
10. Getting Distinct Postal Codes: Get and display the distinct postal codes from the employee.
11. Total cost of Remuneration: Use the reduced operation to combine the remuneration of all employees into a single sum.
12. Checking If All Employees Are Adults: Use the allMatch operation to check if all employees are older than 18.
13. Skipping Employees: Skip the first 3 employees and collect the rest of the employees..
14. Average Age in Downtown District: Calculate and display the average age of employees in the "Downtown" district.
15. Displaying the Top 3 Highest Remunerations: Find and display the top 3 employees with the highest remuneration.