Job Simulation: Employee Dashboard Simulation

Project Title:

Implementation of an Employee Management Dashboard

Role:

Front-End Development Inter

Technology Stack:

HTML, CSS, JavaScript

Objective:

To design and implement a fully responsive dashboard that displays, filters, and analyzes employee data. The project introduces practical experience with JavaScript's higher-order functions such as map(), filter(), reduce(), find(), and forEach(). You will create a basic UI using HTML and CSS, and integrate interactivity using modular JavaScript code.

Task Overview:

You are required to build a dynamic, user-friendly dashboard that allows users to:

- View a table of employee data
- Filter employees by department
- Search employees by name
- Calculate and display average salary
- Convert all employee names to uppercase
- View summarized results in a separate panel

This task simulates real-world employee data management with visual interactivity.

Task Requirements:

1. Functionality:

- Create a JavaScript array of employee objects with these properties:
    - name, age, department, role, salary
- Use forEach() to dynamically generate table rows for each employee
- Use map() to convert all employee names to uppercase when a button is clicked, then update the table
- Use filter() to filter employees based on selected department from a dropdown menu
- Use reduce() to calculate and display the **average salary** in the result panel
- Use find() to search and display full details of an employee when a name is entered in the search field

2. User Interface (UI):

Build a responsive layout with the following sections:

- **Header:**
  Title: *Employee Management Dashboard*
- **Controls Panel:**
    - Search bar to input employee names
    - Dropdown to filter by department
    - Buttons for:
        - Convert Names to Uppercase
        - Calculate Average Salary
- **Employee Table:**
  Columns: Name, Age, Department, Role, Salary

- **Result Panel:**
  Displays:
    - Average salary
    - Searched employee's full information

CSS Styling Requirements:

- Use consistent padding, spacing, and modern color schemes
- Apply background color or card-style boxes to different sections
- Make the employee table scrollable and fully responsive
- Highlight table rows on hover with smooth transitions

3. Code Structure:

- Use **separate files**:
    - index.html – HTML layout and structure
    - style.css – CSS styles for layout, color, and responsiveness
    - script.js – JavaScript logic for all data operations and UI updates
- Create **modular JavaScript functions**, such as:
    - filterByDepartment()
    - calculateAverageSalary()
    - convertNamesToUpperCase()
    - searchEmployeeByName()
    - displayEmployeeTable()
- Bind UI elements and events using document.querySelector() and related DOM methods
- Add **2–3 line comments** in script.js explaining how each array method (map, filter, reduce, find, forEach) is being used

Bonus (Optional Features):

- Add a **light/dark mode toggle** using CSS class switching
- **Validate search input** to display “No match found” when the entered name doesn’t exist
- Animate row highlighting using transition and :hover
- Show the **total number of employees** currently displayed in the table

Deliverables:

Submit a project folder containing:

- index.html – Markup for the dashboard layout
- style.css – Styles for layout, responsive design, and theming
- script.js – JavaScript for managing data and updating the UI

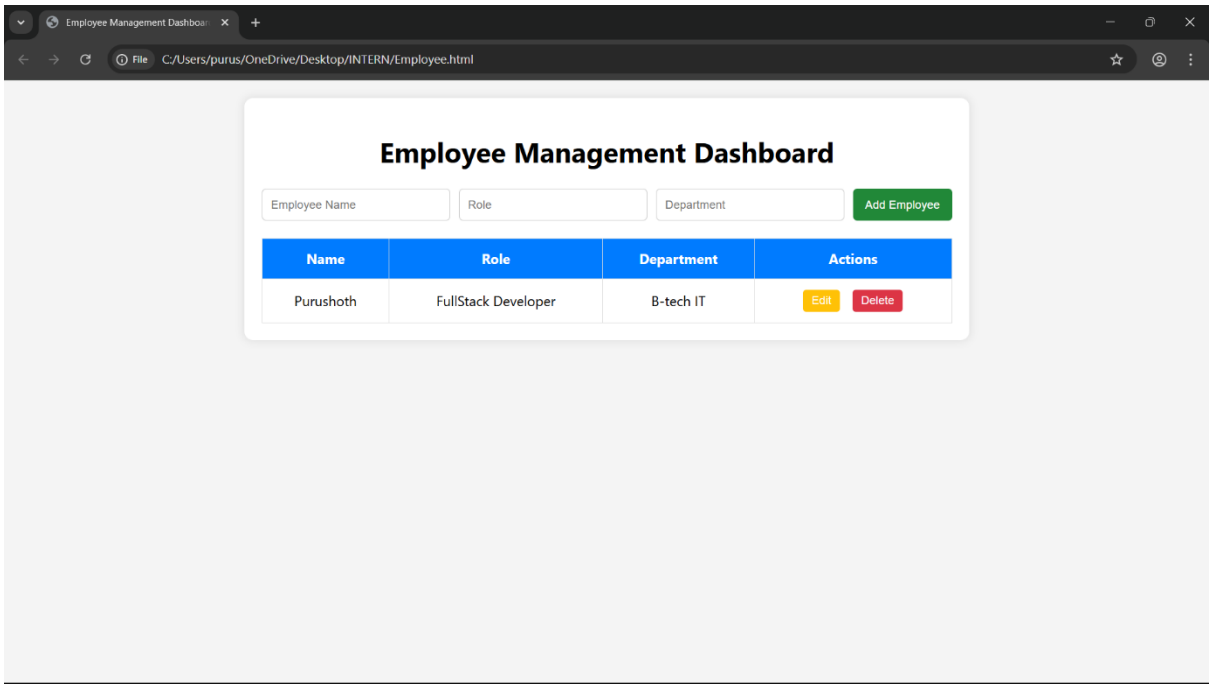
Make sure it includes inline comments for every higher-order function used.

Learning Outcomes:

By completing this project, you will gain practical experience in:

- Using JavaScript’s higher-order functions to process and manipulate arrays
- Creating and updating DOM elements dynamically
- Designing modular and maintainable JavaScript code
- Building responsive and styled layouts using HTML and CSS
- Handling and validating user inputs to enhance interactivity

Project:


Employee Management Dashboard
File
C:/Users/purus/OneDrive/Desktop/INTERN/Employee.html
Employee Management Dashboard
Employee Name
Role
Department
Add Employee
Name
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Actions
Purushoth
FullStack Developer
B-tech IT
Edit
Delete