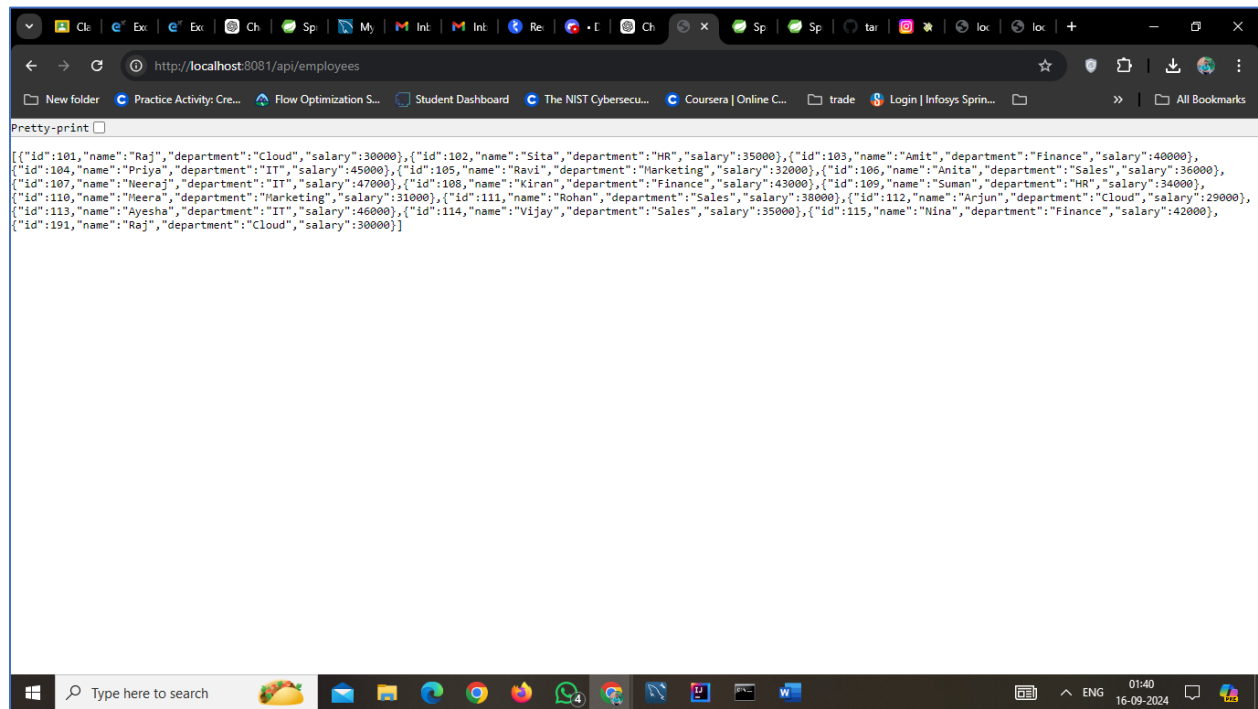


# SPRING BOOT

- 1) Design a Spring Boot program to create a CRUD (Create, Read, Update, Delete) application using Hibernate for managing employee records. The program should allow users to perform the following operations on the employee database:
  - a) Add a new employee: The user can enter details like employee name, department, and salary, and the program should add the employee to the database.
  - b) Update employee details: The user can update the name, department, or salary of an existing employee based on their employee ID.
  - c) Delete an employee: The user can delete an employee from the database based on their employee ID.
  - d) Display all employees: The program should retrieve and display a list of all employees and their details from the database.
  - e) Requirements:
    - i) Use Spring Boot to create the application and Hibernate to manage the database.
    - ii) Implement JPA (Java Persistence API) for data access.
    - iii) Provide a RESTful API for performing CRUD operations on employees.
    - iv) Implement exception handling to handle possible errors during database interactions.
    - v) Cover Spring Boot and Hibernate topics, such as entity classes, repositories, services, and controllers.
  - f) Note: Before running the program, make sure you have set up the database and configured the connection in the application.properties file.

## Output:



The screenshot shows a web browser window with the address bar displaying `http://localhost:8081/api/employees`. The browser's developer tools are open, showing a 'Pretty-print' view of a JSON array. The array contains 19 employee objects, each with an 'id', 'name', 'department', and 'salary' field. The employees are distributed across five departments: Cloud, HR, Finance, Sales, and IT. The salaries range from 30,000 to 46,000. The browser's taskbar at the bottom shows various application icons and the system clock indicating 01:40 on 16-09-2024.

```
[{"id":101,"name":"Raj","department":"Cloud","salary":30000}, {"id":102,"name":"Sita","department":"HR","salary":35000}, {"id":103,"name":"Amit","department":"Finance","salary":40000}, {"id":104,"name":"Priya","department":"IT","salary":45000}, {"id":105,"name":"Ravi","department":"Marketing","salary":32000}, {"id":106,"name":"Anita","department":"Sales","salary":36000}, {"id":107,"name":"Heeraj","department":"IT","salary":47000}, {"id":108,"name":"Kiran","department":"Finance","salary":43000}, {"id":109,"name":"Suman","department":"HR","salary":34000}, {"id":110,"name":"Heera","department":"Marketing","salary":31000}, {"id":111,"name":"Rohan","department":"Sales","salary":38000}, {"id":112,"name":"Arjun","department":"Cloud","salary":29000}, {"id":113,"name":"Ayesha","department":"IT","salary":46000}, {"id":114,"name":"Vijay","department":"Sales","salary":35000}, {"id":115,"name":"Nina","department":"Finance","salary":42000}, {"id":191,"name":"Raj","department":"Cloud","salary":30000}]
```