

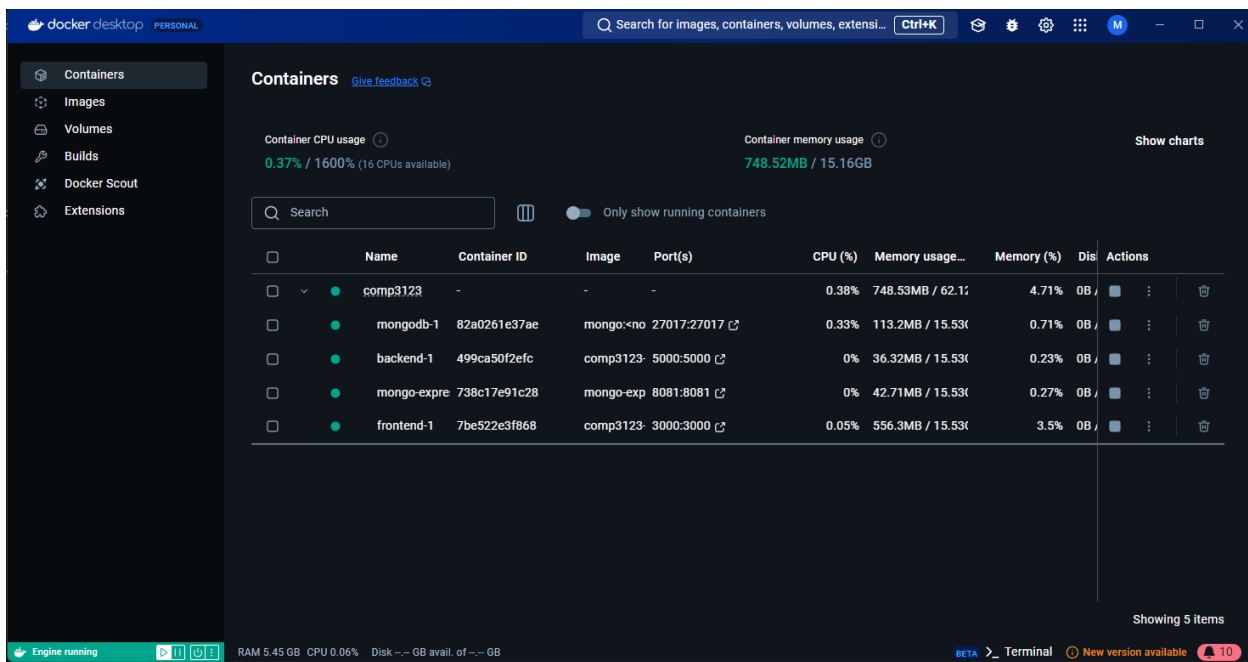
# Assignment2 – Full Stack Development – I

Student ID: 101451857

Name: Mo Harry Bandukda

GitHub Link: [https://github.com/Harrybandukda/101451857\\_COMP3123\\_Assignme](https://github.com/Harrybandukda/101451857_COMP3123_Assignme)

## 1) Docker Deployment



## 2) Docker CMD

```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL PORTS AZURE SPELL CHECKER COMMENTS
=> => transferring context: 5.84MB
=> CACHED [frontend 3/5] COPY package.json ./
=> CACHED [frontend 4/5] RUN npm install
=> [frontend 5/5] COPY . .
=> [frontend] exporting to image
=> => exporting layers
=> => writing image sha256:1266678e724de3e9fe143b928541a79e315c19c290d813714a01afefcd3f8500
=> => naming to docker.io/library/comp3123-frontend
=> [frontend] resolving provenance for metadata file
[+] Running 5/5
✓ Network comp3123_default Created
✓ Container comp3123-mongodb-1 Started
✓ Container comp3123-mongo-express-1 Started
✓ Container comp3123-backend-1 Started
✓ Container comp3123-frontend-1 Started
PS D:\GBC\S5\FullStack\Assignment\101451857_comp3123_assignment2>
```

### 3) Mongo DB

The screenshot shows the Mongo Express web interface at localhost:8081. The 'Databases' section lists four databases: admin, assignment2, config, and local. Each database has a 'View' button and a 'Del' button. The 'Server Status' section provides a table of server metrics.

Server Status			
Hostname	5f208d3a659d	MongoDB Version	8.0.3
Uptime	70 seconds	Node Version	18.20.3
Server Time	Wed, 27 Nov 2024 19:18:57 GMT	VS Version	10.2.154.26-node.37
Current Connections	7	Available Connections	838853
Active Clients	0	Queued Operations	0
Clients Reading	0	Clients Writing	0
Read Lock Queue	0	Write Lock Queue	0

### 4) Database

The screenshot shows the Mongo Express web interface at localhost:8081/db/assignment2/. The 'Collections' section lists two collections: employees and users. Each collection has a 'View' button, an 'Export' button, a '[JSON]' button, an 'Import' button, and a 'Del' button. The 'Database Stats' section provides a table of database metrics.

Database Stats	
Collections (incl. system.namespaces)	2
Data Size	191 Bytes
Storage Size	24.6 KB
Avg Obj Size #	191 Bytes
Objects #	1
Indexes #	3
Index Size	45.1 KB

## 5) User Table

Mongo Express Database: assignment2 Collection: users

Viewing Collection: users

[New Document](#) [New Index](#)

[Simple](#) [Advanced](#)

Key Value String Find

Delete all 3 documents retrieved

_id	username	email	password	createdAt	updatedAt	_v
67476f6e238721fc94f639a9	Harry	harry@gmail.com	\$2a\$10\$09LoNuEUX3CKJPU1oBnlu8kIEExXhvAz7Si6FEVG...	Wed Nov 27 2024 19:13:50 GMT+0000 (Coordinated Universal Time)	Wed Nov 27 2024 19:13:50 GMT+0000 (Coordinated Universal Time)	0
67477135be716bb031ee31a8	Pritesh	prites@gmail.com	\$2a\$10\$CMBxWfgalsko4LbPrsM.nUCIHhKOV53eLxVOhrl...	Wed Nov 27 2024 19:21:25 GMT+0000 (Coordinated Universal Time)	Wed Nov 27 2024 19:21:25 GMT+0000 (Coordinated Universal Time)	0
6747750bbe716bb031ee31f6	Mohammed	tawalleh@gmail.com	\$2a\$10\$F4Kb2YX0Ku33cRwbv7uueeYVwESW0bC3usKP4YF0...	Wed Nov 27 2024 19:37:47 GMT+0000 (Coordinated Universal Time)	Wed Nov 27 2024 19:37:47 GMT+0000 (Coordinated Universal Time)	0

## 6) Employee Table

Mongo Express Database: assignment2 Collection: employees

Viewing Collection: employees

[New Document](#) [New Index](#)

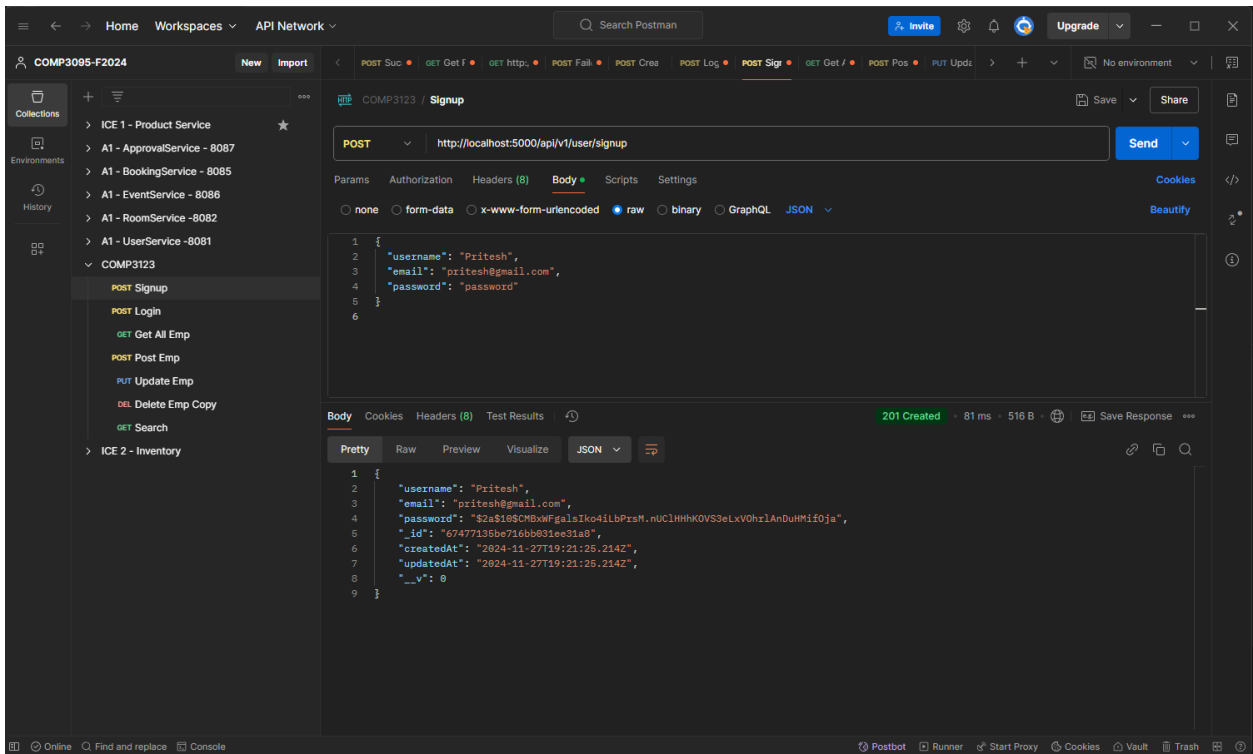
[Simple](#) [Advanced](#)

Key Value String Find

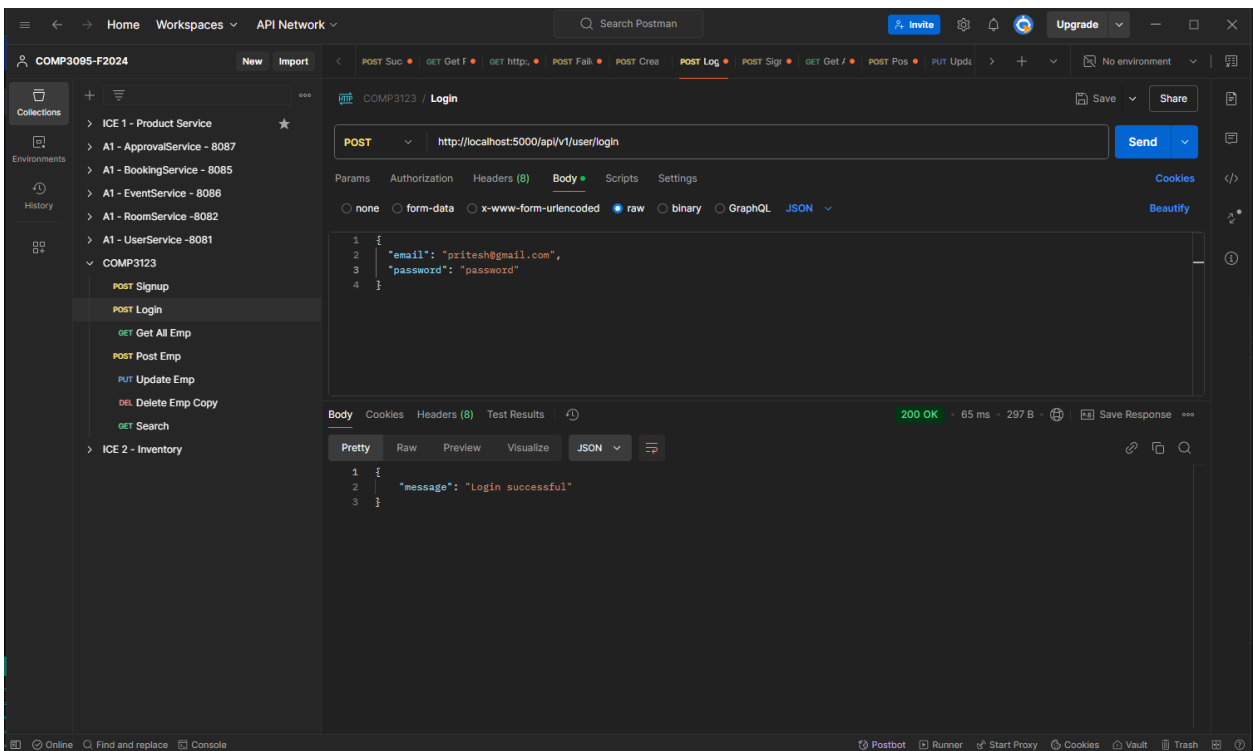
Delete all 4 documents retrieved

_id	first_name	last_name	email	position	salary	date_of_joining	department	createdAt	updatedAt	_v
674771e6be716bb031ee31b2	Harry	Bandukda	harry@example.com	Manager	60000	Sun Jan 15 2023 00:00:00 GMT+0000 (Coordinated Universal Time)	IT	Wed Nov 27 2024 19:24:22 GMT+0000 (Coordinated Universal Time)	Wed Nov 27 2024 19:24:22 GMT+0000 (Coordinated Universal Time)	0
67477201be716bb031ee31b4	Pritesh	Patel	patel@example.com	Senior Developer	200000	Mon Jan 15 2024 00:00:00 GMT+0000 (Coordinated Universal Time)	IT	Wed Nov 27 2024 19:24:49 GMT+0000 (Coordinated Universal Time)	Wed Nov 27 2024 19:32:59 GMT+0000 (Coordinated Universal Time)	0
67477230be716bb031ee31b6	James	Charles	james@example.com	Manager	120000	Sun Jan 15 2023 00:00:00 GMT+0000 (Coordinated Universal Time)	HR	Wed Nov 27 2024 19:25:36 GMT+0000	Wed Nov 27 2024 19:25:36 GMT+0000	0

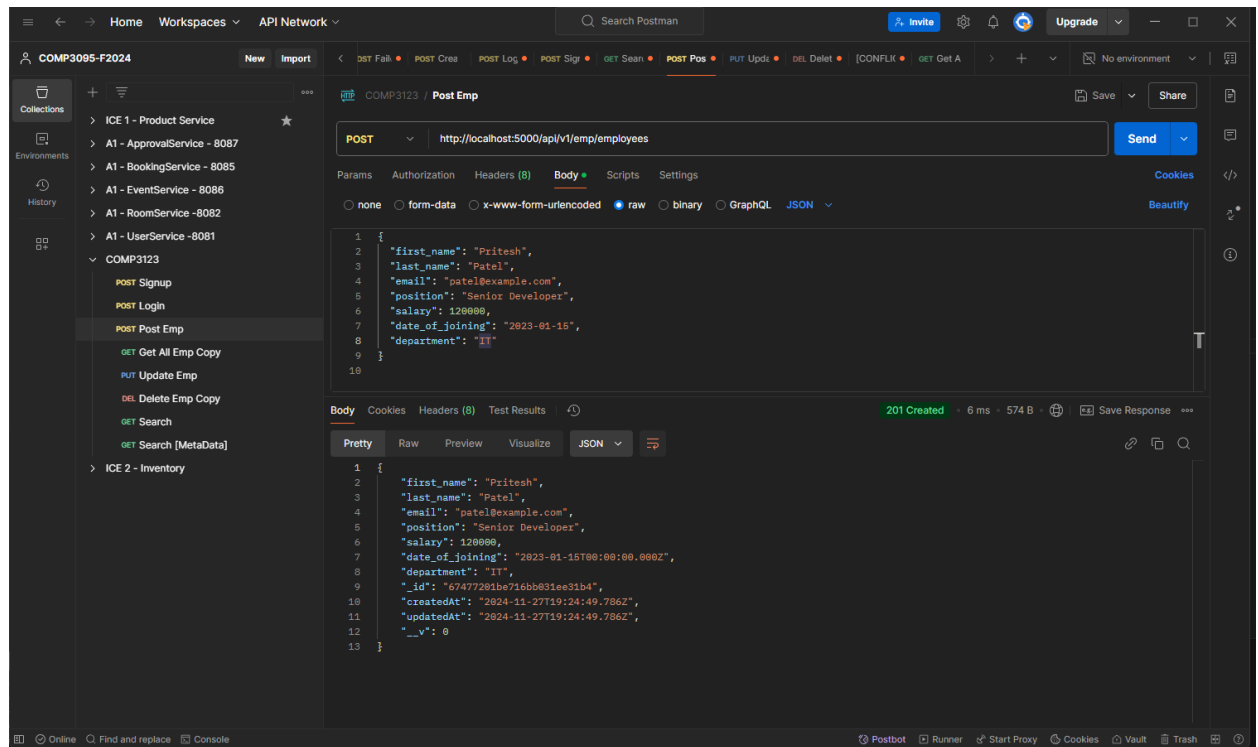
## 1) Postman → Signup → Added Pritesh as a User



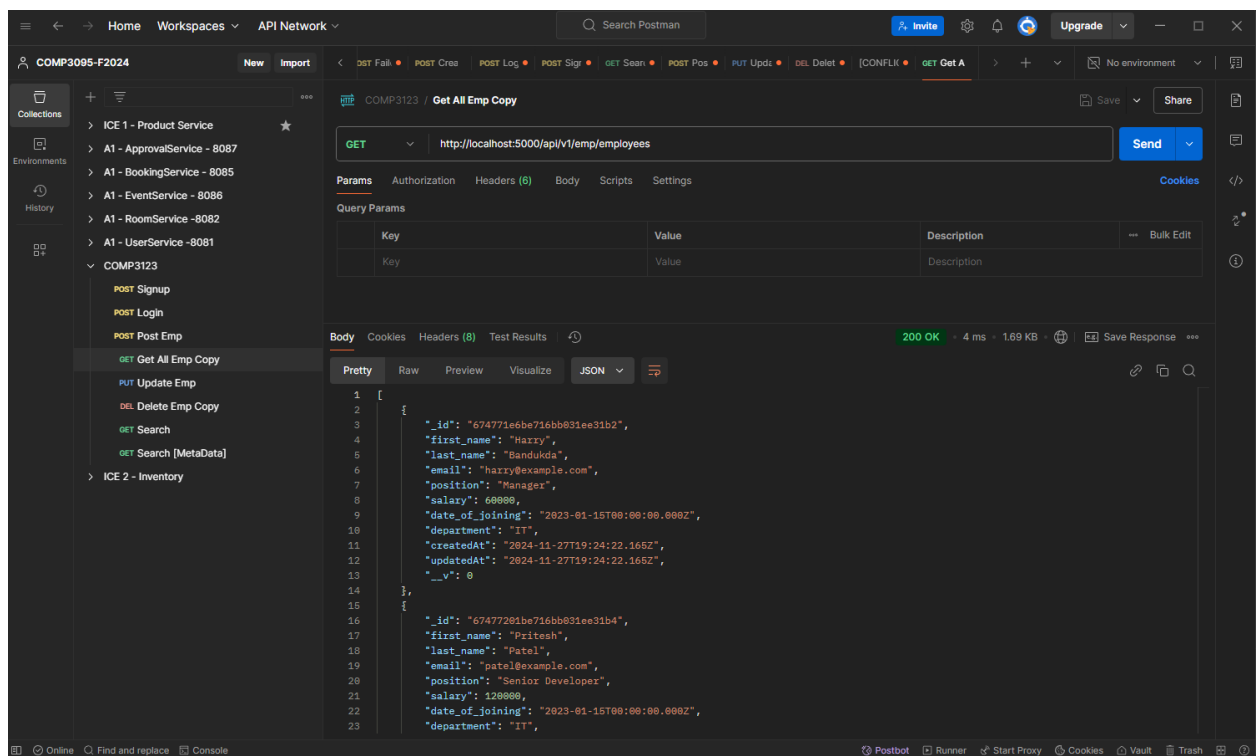
## 2) Postman → Login as Pritesh



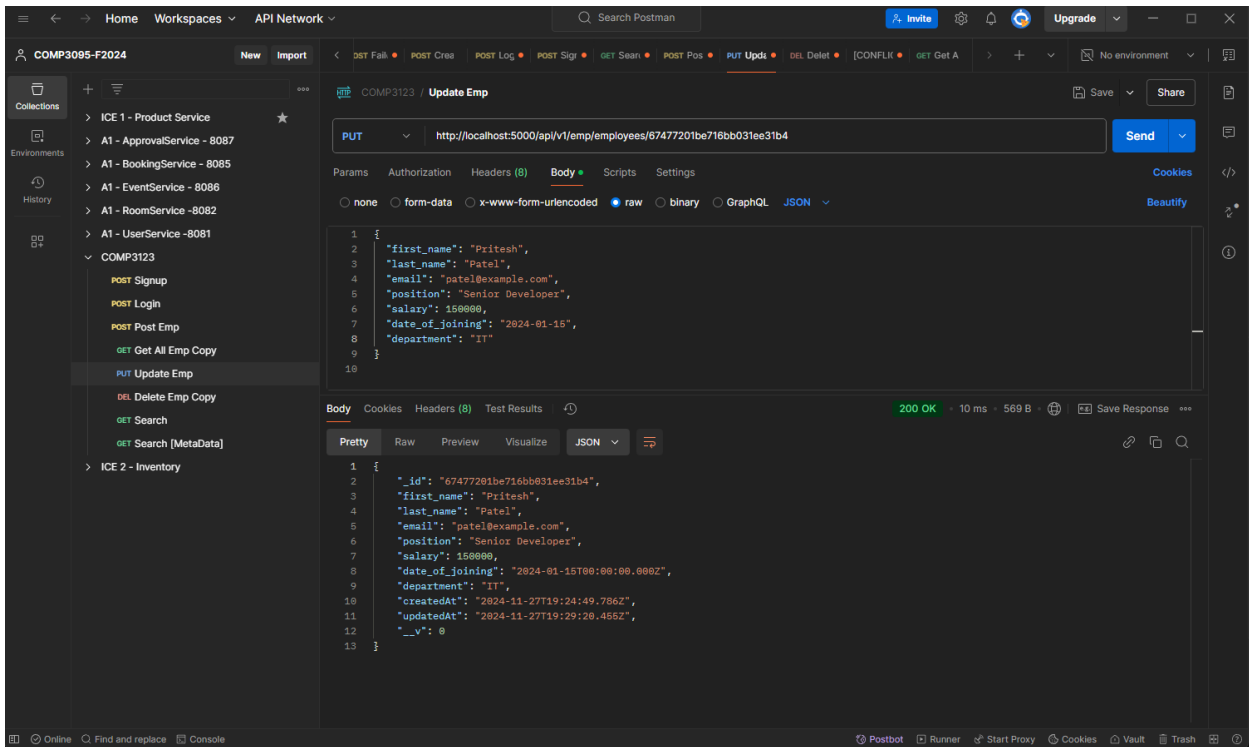
### 3) Postman → Add Employee → Added Pritesh as an employee



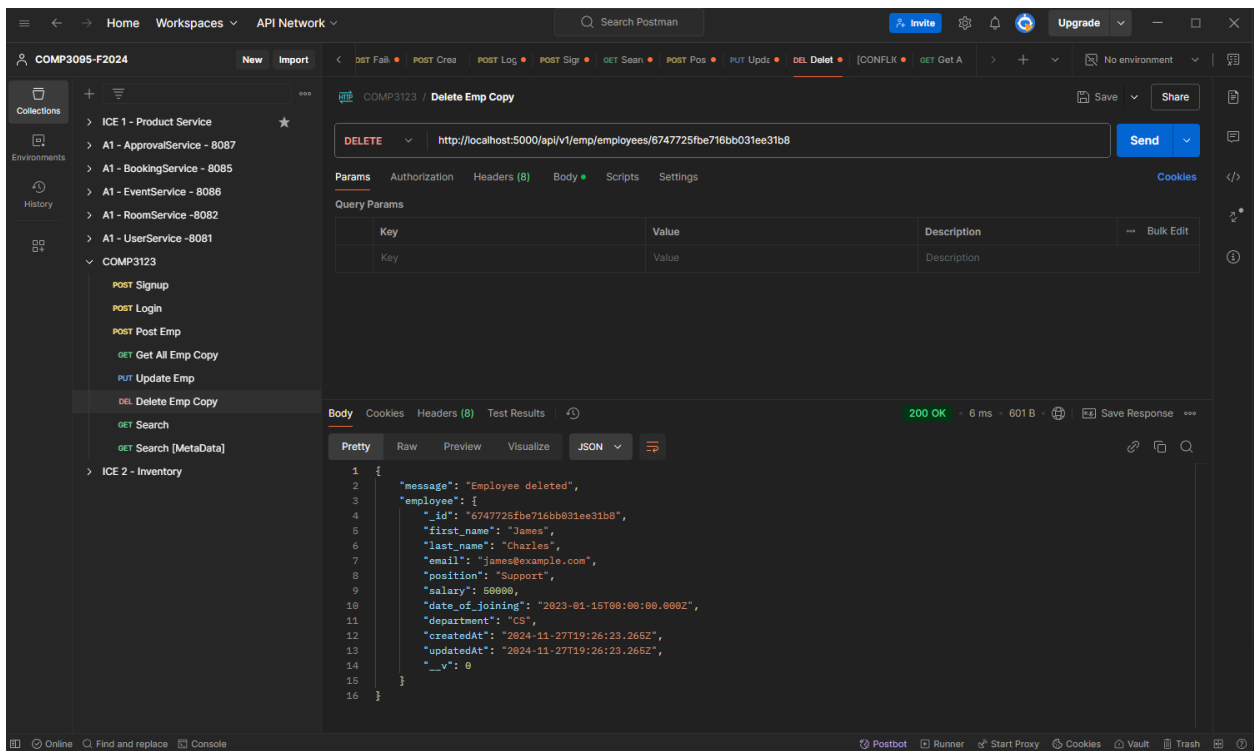
### 4) Postman → Get All Employee



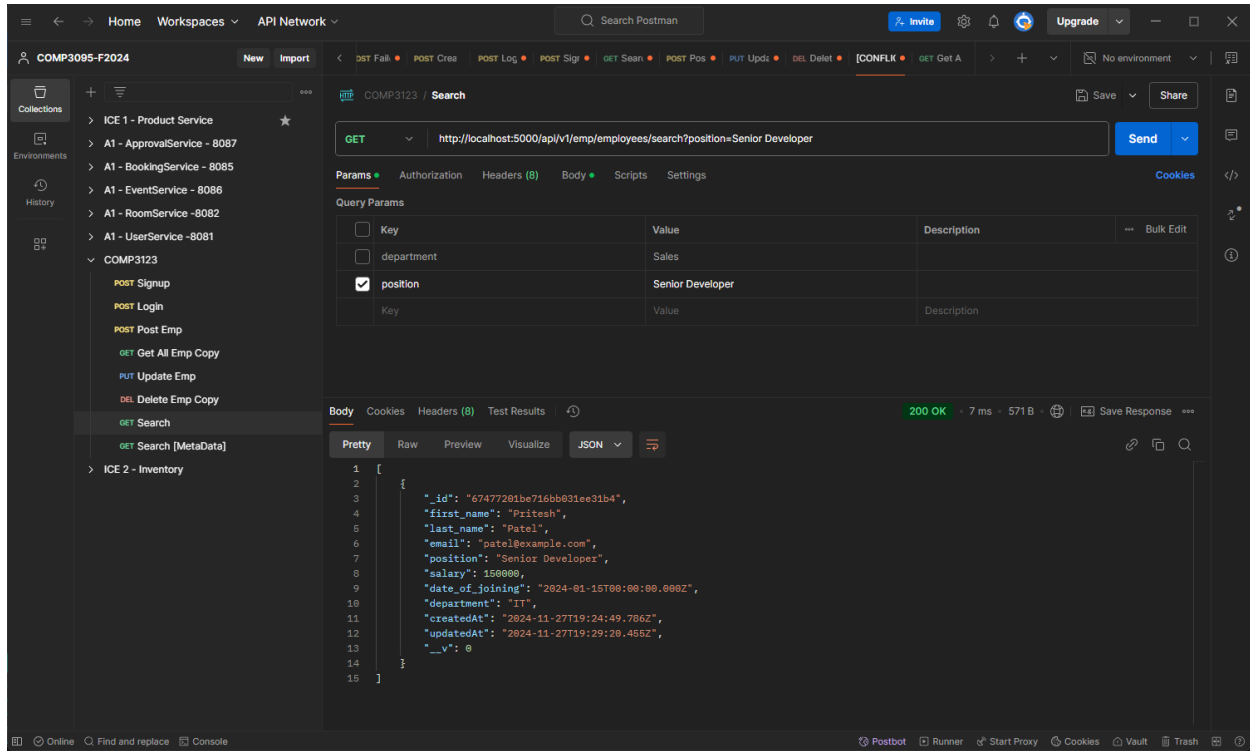
## 5) Postman → Update Employee Salary to 150k



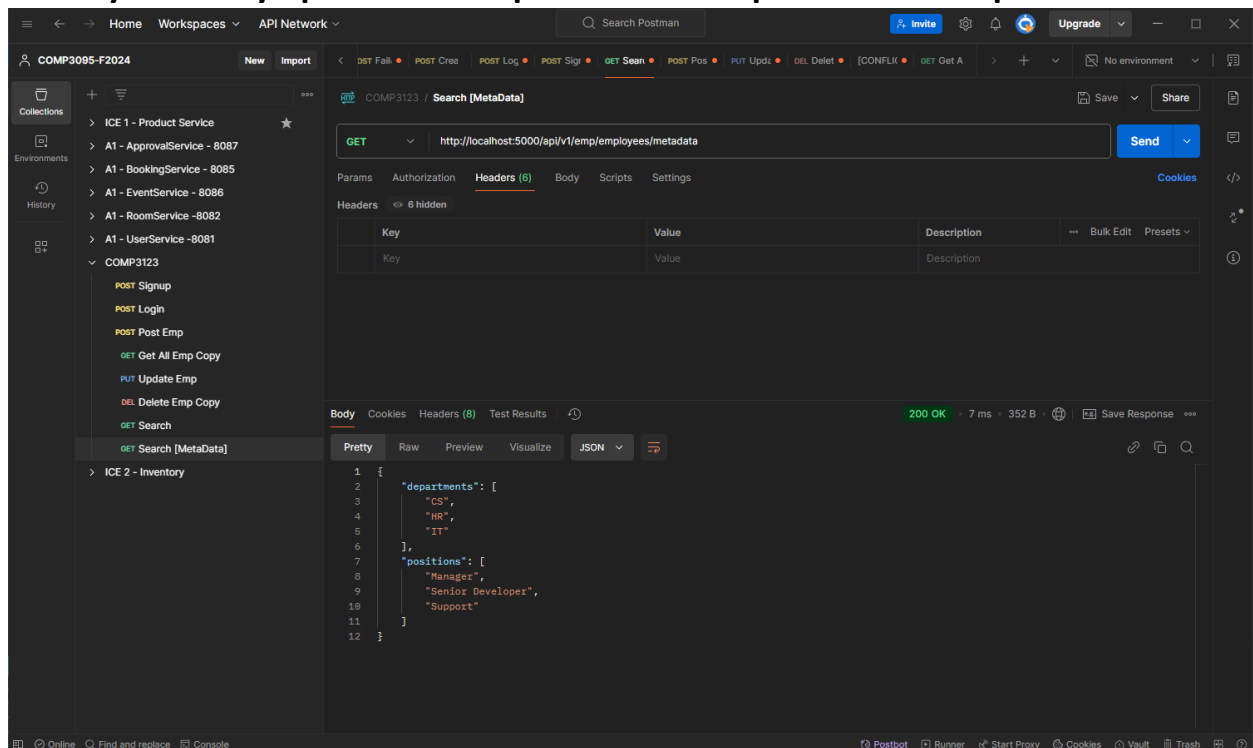
## 7) Postman → Delete Employee → Delete James Charles from the List



## 8) Postman → Search Employee → Search by Position (Senior Dev)



## 9) Postman → Search Metadata (Internal) → This restAPI help the search to dynamically update the dropbox with new position and departments



## 10) Front End → Login → Incorrect password (Validation)

The screenshot shows a web browser window with the URL `localhost:3000/login`. The page has a blue header with the text "Employee Management" and links for "LOGIN" and "SIGN UP". The main content area features a "Sign in" form with two input fields: "Email Address \*" containing `harrisbandukda@gmail.com` and "Password \*" containing `hello`. Below the fields is a blue "SIGN IN" button. A red error message, "Invalid email or password", is displayed at the bottom of the form.

## 11) Front End → Signup Page

The screenshot shows a web browser window with the URL `localhost:3000/signup`. The page has a blue header with the text "Employee Management" and links for "LOGIN" and "SIGN UP". The main content area features a "Sign Up" form with a purple user icon at the top. The form contains three input fields: "Username \*" with the value `Mohammed`, "Email Address \*" with the value `tawalleh@gmail.com`, and "Password \*" with masked characters `*****`. A blue "SIGN UP" button is located at the bottom of the form.



## 12) Front End → Employee List with dynamic Nav Bar

The screenshot shows a web application interface for managing employees. The browser address bar indicates the URL is `localhost:3000/employees`. The navigation bar at the top is blue and contains the text "Employee Management" on the left, and links for "EMPLOYEES", "harry@gmail.com", and "LOGOUT" on the right. The main content area is titled "Employee List" and includes a blue "ADD EMPLOYEE" button. Below the title are two dropdown menus for "Department" and "Position", followed by a blue "SEARCH" button. A table displays a list of employees with columns for First Name, Last Name, Email, Position, Department, Salary, Date of Joining, and Actions. The table contains five rows of employee data, each with corresponding "VIEW", "UPDATE", and "DELETE" action links.

First Name	Last Name	Email	Position	Department	Salary	Date of Joining	Actions
Harry	Bandukda	harry@example.com	Manager	IT	\$60,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Pritesh	Patel	patel@example.com	Senior Developer	IT	\$150,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
James	Charles	james@example.com	Manager	HR	\$120,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Navjot	Kaur	nav@example.com	Support	CS	\$55,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

## 13) Front End → Add Emp

The screenshot shows the "Add New Employee" form in a web application. The browser address bar indicates the URL is `localhost:3000/add-employee`. The navigation bar at the top is blue and contains the text "Employee Management" on the left, and links for "EMPLOYEES", "pritesh@gmail.com", and "LOGOUT" on the right. The main content area is titled "Add New Employee" and contains a form with input fields for First Name, Last Name, Email, Position, Department, Salary, and Date of Joining. The form also includes a "CANCEL" button and a blue "ADD EMPLOYEE" button. The form fields are filled with the following data: First Name: Salman, Last Name: Khan, Email: salu@gmail.com, Position: CEO, Department: Manager, Salary: 400000, Date of Joining: 10/16/2024.

First Name \*

Salman

Last Name \*

Khan

Email \*

salu@gmail.com

Position \*

CEO

Department \*

Manager

Salary \*

400000

Date of Joining \*

10/16/2024

[← CANCEL](#) [ADD EMPLOYEE](#)

## 14) Front End → Added Successful

Employee Management

localhost:3000 says  
Employee added successfully

OK

### Add New Employee

First Name \*  
Salman

Last Name \*  
Khan

Email \*  
sallu@gmail.com

Position \*  
CEO

Department \*  
Manager

Salary \*  
400000

Date of Joining \*  
10/16/2024

← CANCEL

ADD EMPLOYEE

## 15) Front End → Update Emp → Salary Updated to 200k

Employee Management

localhost:3000 says  
Employee updated successfully

OK

### Edit Employee

First Name \*  
Pritesh

Last Name \*  
Patel

Email \*  
patel@example.com

Position \*  
Senior Developer

Department \*  
IT

Salary \*  
200000

← CANCEL

UPDATE EMPLOYEE

## 16) Front End → Salman bhai added to List → Salary updated to 200k for Pritesh

The screenshot shows the 'Employee Management' application interface. At the top, there's a blue header with 'Employee Management' and user information. Below the header, there's a section titled 'Employee List' with an 'ADD EMPLOYEE' button. There are search filters for 'Department' and 'Position', and a 'SEARCH' button. The main part of the page is a table listing employees with columns for First Name, Last Name, Email, Position, Department, Salary, Date of Joining, and Actions. The table contains five rows of employee data.

First Name	Last Name	Email	Position	Department	Salary	Date of Joining	Actions
Harry	Bandukda	harry@example.com	Manager	IT	\$60,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Pritesh	Patel	patel@example.com	Senior Developer	IT	\$200,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
James	Charles	james@example.com	Manager	HR	\$120,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Navjot	Kaur	nav@example.com	Support	CS	\$55,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Salman	Khan	sallu@gmail.com	CEO	Manager	\$400,000	10/16/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

## 17) Front End → View Emp

The screenshot shows the 'Employee Management' application interface. The top header is the same as in the previous screenshot. Below the header, there's a section titled 'Employee Details' with an 'EDIT' button. The details are displayed in a card-like format with the following information: Name (Harry Bandukda), Position (Manager), Department (IT), Email (harry@example.com), Salary (\$60000), and Date of Joining (1/15/2023). At the bottom of the card, there's a 'BACK TO EMPLOYEE LIST' button.

**Employee Details**

Harry Bandukda

Position: Manager      Department: IT

Email: harry@example.com      Salary: \$60000

Date of Joining: 1/15/2023

[← BACK TO EMPLOYEE LIST](#)

## 18) Search → Dynamically updating position based on data

The screenshot shows a web application titled "Employee Management" with a navigation bar containing "EMPLOYEES", "pritesh@gmail.com", and "LOGOUT". The main content area is titled "Employee List" and includes an "ADD EMPLOYEE" button. A search bar is present with a dropdown menu open, showing the following options: "All", "CEO", "Manager", "Senior Developer", and "Support". The table below displays employee data with columns for Name, Email, Position, Department, Salary, and Date. The data is filtered by the selected position.

Name	Email	Position	Department	Salary	Date	Actions
Pritesh Patel	patel@example.com	Senior Developer	IT	\$200,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
James Charles	james@example.com	Manager	HR	\$120,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Navjot Kaur	nav@example.com	Support	CS	\$55,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Salman Khan	sallu@gmail.com	CEO	Manager	\$400,000	10/16/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

## 19) Search → Dynamically updating department based on data

The screenshot shows the same "Employee Management" application. The search bar now has a dropdown menu open with the following options: "All", "CS", "HR", "IT", and "Manager". The table below displays employee data with columns for Name, Email, Position, Department, Salary, and Date. The data is filtered by the selected department.

Name	Email	Position	Department	Salary	Date	Actions
Harry Bandukda	harry@example.com	Manager	IT	\$60,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Pritesh Patel	patel@example.com	Senior Developer	IT	\$200,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
James Charles	james@example.com	Manager	HR	\$120,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Navjot Kaur	nav@example.com	Support	CS	\$55,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Salman Khan	sallu@gmail.com	CEO	Manager	\$400,000	10/16/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

## 20) Search → Based on position

The screenshot shows a web browser at localhost:3000/employees. The page has a blue header with 'Employee Management', 'EMPLOYEES', 'pritesh@gmail.com', and 'LOGOUT'. The main content area is titled 'Employee List' and includes an 'ADD EMPLOYEE' button. Below the title are two dropdown menus: 'Department' (empty) and 'Position' (set to 'Senior Developer'). A 'SEARCH' button is below the dropdowns. The search results are displayed in a table with columns: First Name, Last Name, Email, Position, Department, Salary, Date of Joining, and Actions. One result is shown: Pritesh Patel, Senior Developer, IT, \$200,000, 1/15/2024.

First Name	Last Name	Email	Position	Department	Salary	Date of Joining	Actions
Pritesh	Patel	patel@example.com	Senior Developer	IT	\$200,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

## 21) Search → Based on Department

The screenshot shows the same web browser at localhost:3000/employees. The 'Department' dropdown is now open, showing options: All, CS, HR, IT, and Manager. The 'Position' dropdown remains set to 'Senior Developer'. The search results table now displays five results, including Harry Bandukda (Manager, IT), Pritesh Patel (Senior Developer, IT), James Charles (Manager, HR), Navjot Kaur (Support, CS), and Salman Khan (CEO, Manager).

First Name	Last Name	Email	Position	Department	Salary	Date of Joining	Actions
Harry	Bandukda	harry@example.com	Manager	IT	\$60,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Pritesh	Patel	patel@example.com	Senior Developer	IT	\$200,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
James	Charles	james@example.com	Manager	HR	\$120,000	1/15/2023	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Navjot	Kaur	nav@example.com	Support	CS	\$55,000	1/15/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
Salman	Khan	sallu@gmail.com	CEO	Manager	\$400,000	10/16/2024	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>