customerRelationshipManagement

Above project uses Spring MVC along with Hibernate ORM to perform basic CRUD operations on Customer Relationship Management Portal.

The Customer has 3 visible as well as 1 hidden attribute.

They are ->

1. *Id* (hidden)
2. *First Name*
3. *Last Name*
4. *Email id*

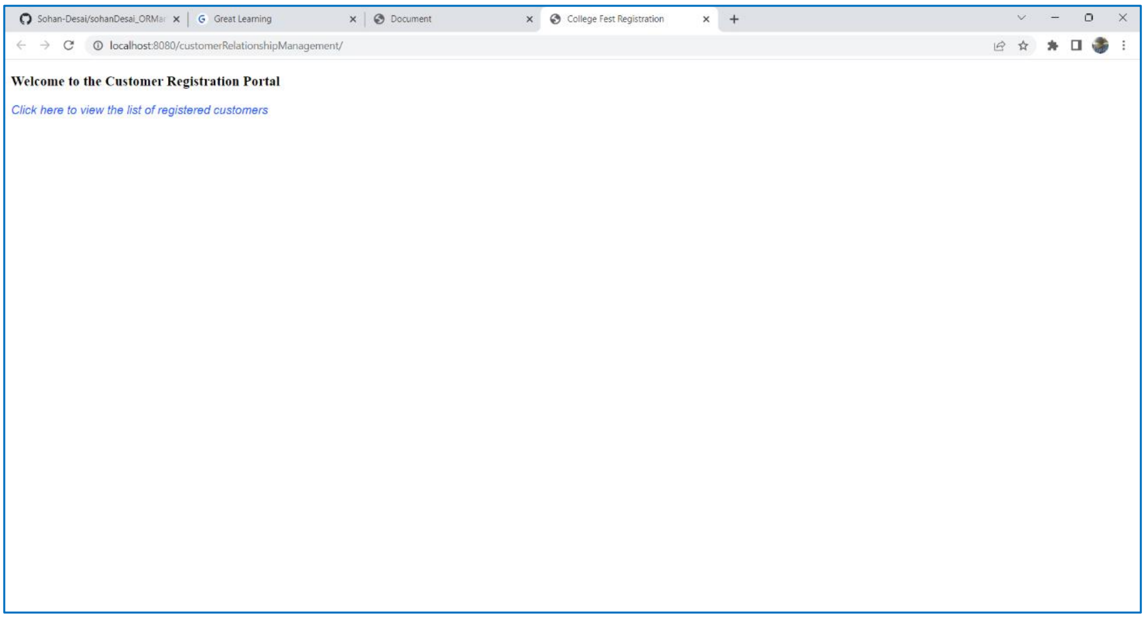
The application performs following functions ->

1. Create a Customer record
2. Read and display existing records
3. Update existing records and save any changes
4. Delete existing records

We shall further see each of these functionalities in greater detail

The Main page

This is the default page that gets loaded when the application is booted on Tomcat server. It has a welcome message and link to **Customer** list page.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Document
College Fest Registration
localhost:8080/customerRelationshipManagement/

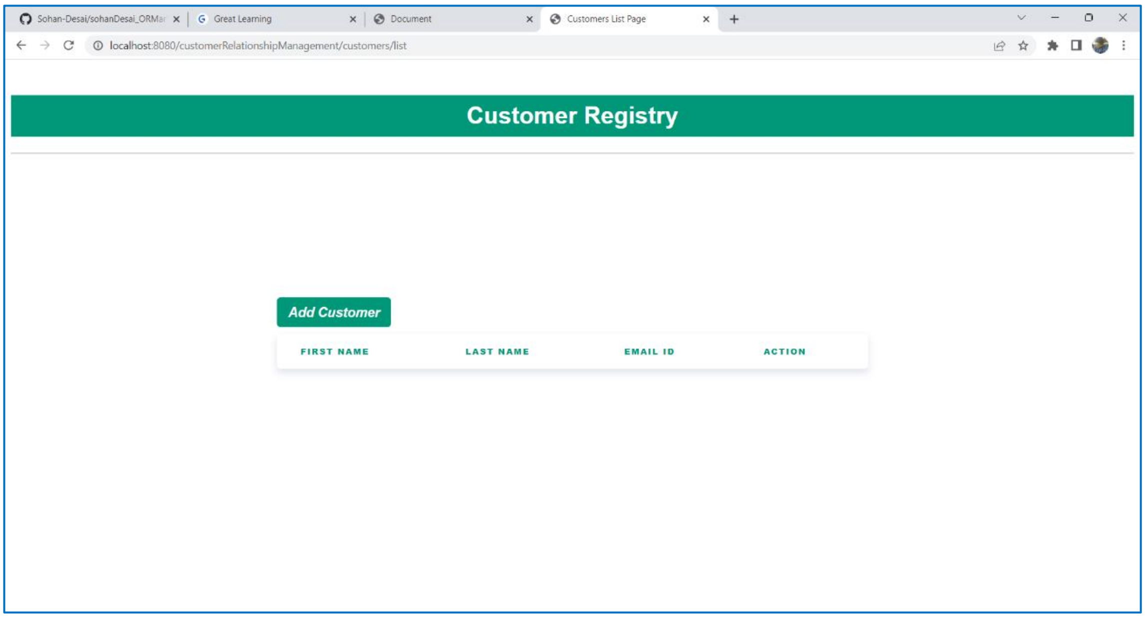
Welcome to the Customer Registration Portal

Click here to view the list of registered customers

Customer List page

Upon clicking on before mentioned link, we arrive at Customer list page. This page contains a header, a table and an "**Add Customer**" button.

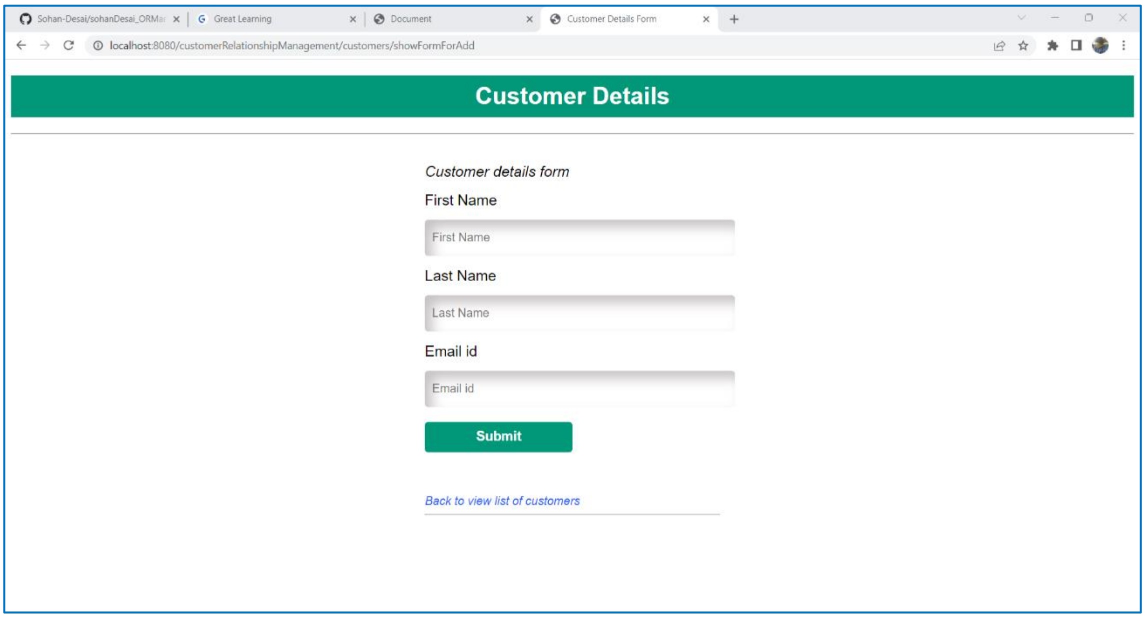
There are no records to be shown yet.



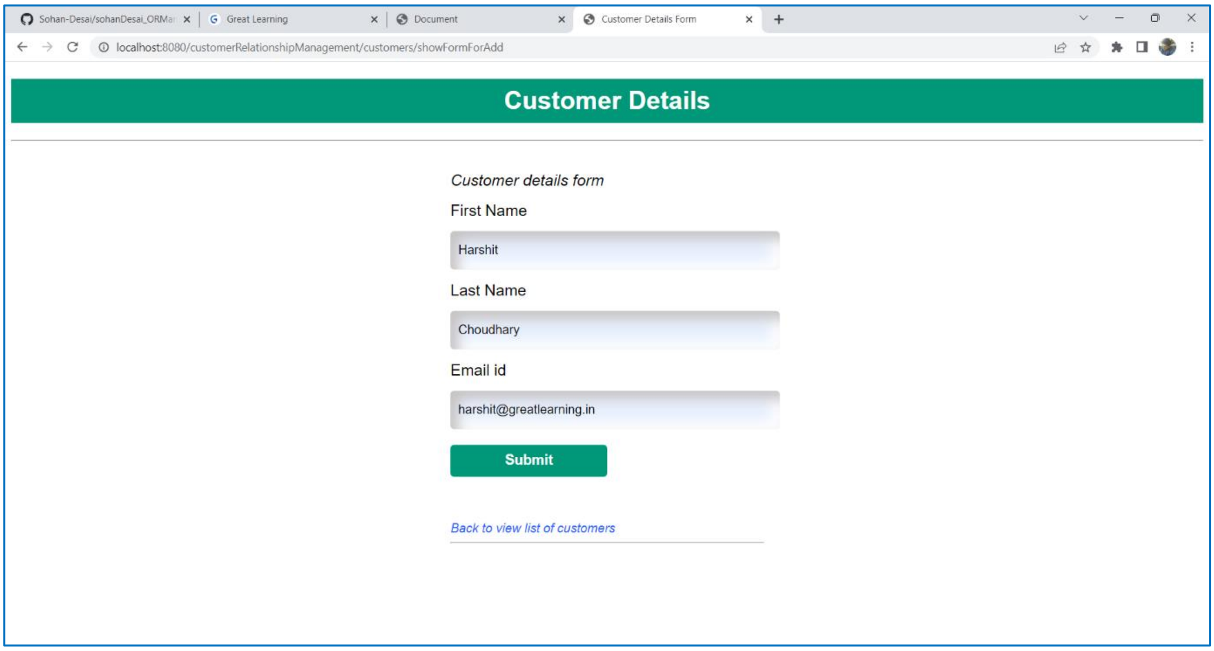
The table has 4 columns. Three of which are customer attributes whereas the fourth column is an action column. This column will display the action buttons viz. **Update** and **Delete**.

Clicking on "**Add Customer**" button takes us to customer form page.

Customer Form page



This page has a header row displaying text “Customer Details”. Below it are the 3 fields along with their labels followed by the **Submit** button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Document
Customer Details Form
localhost:8080/customerRelationshipManagement/customers/showFormForAdd
Submit
Back to view list of customers

Customer Details

Customer details form

First Name

Harshit

Last Name

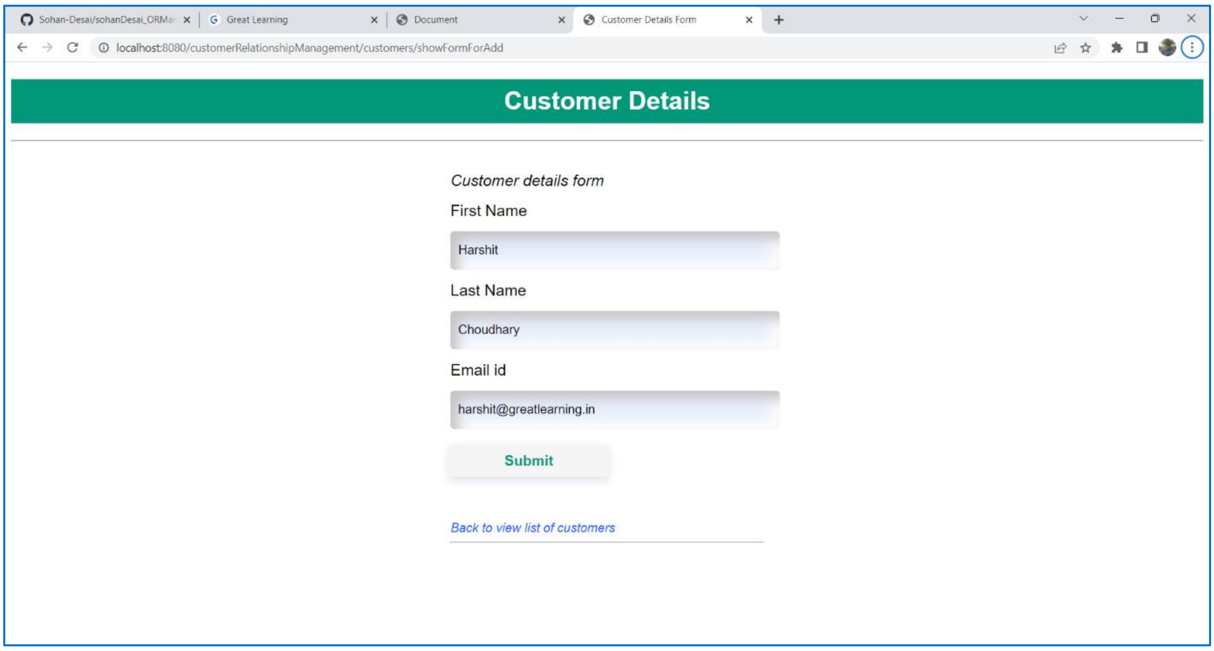
Choudhary

Email id

harshit@greatlearning.in

The submit button and text fields have Neumorphic design. The **Submit** button changes its appearance when cursor hovers over it.

At the very end is provided a link to go back to customer list page.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Document
Customer Details Form
localhost:8080/customerRelationshipManagement/customers/showFormForAdd
Submit
Back to view list of customers

Customer Details

Customer details form

First Name

Harshit

Last Name

Choudhary

Email id

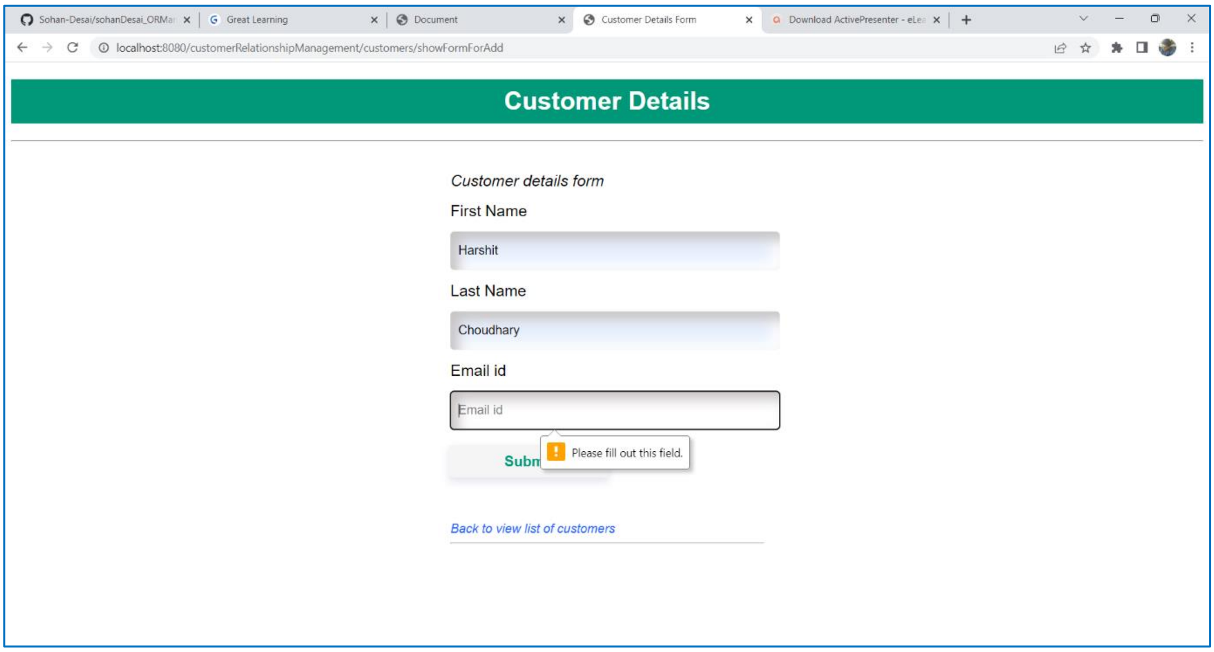
harshit@greatlearning.in

On clicking the **Submit** button, the newly entered records are displayed on customer list page.

#Note->

The email field is a required field which has to populated before submitting the details.

A warning message displays when we click on Submit button without entering data in the email field.



localhost:8080/customerRelationshipManagement/customers/showFormForAdd

Customer Details

Customer details form

First Name: Harshit

Last Name: Choudhary

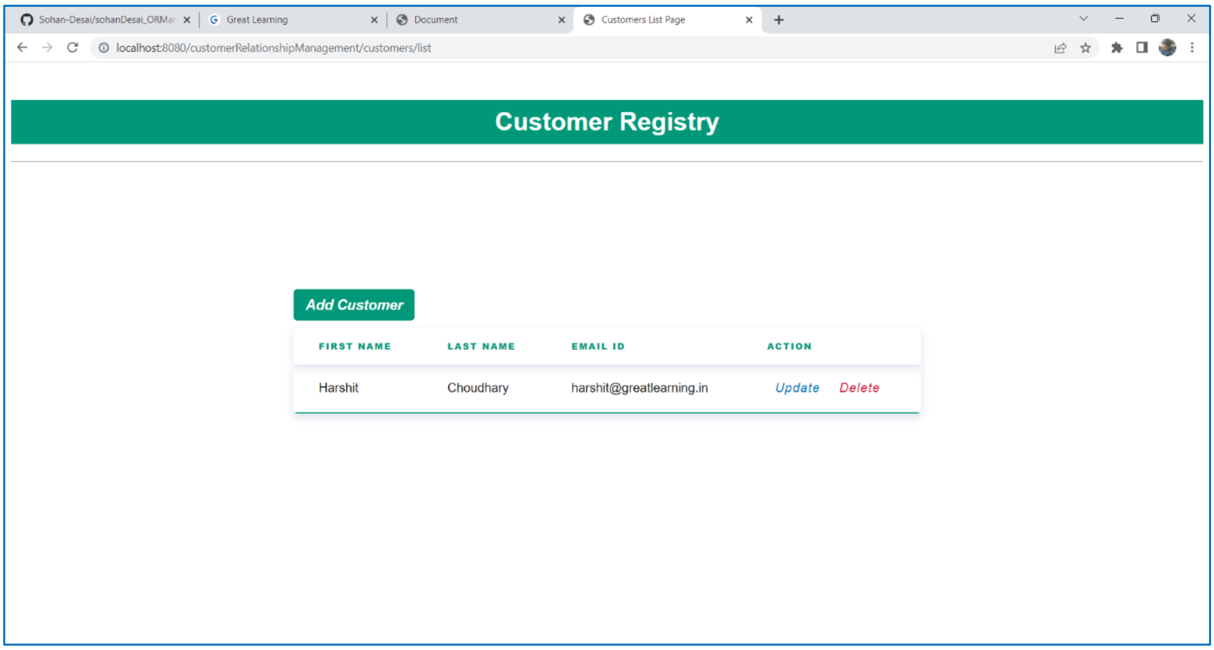
Email id: Email id

Please fill out this field.

Back to view list of customers

The entered records get displayed on customer list page.

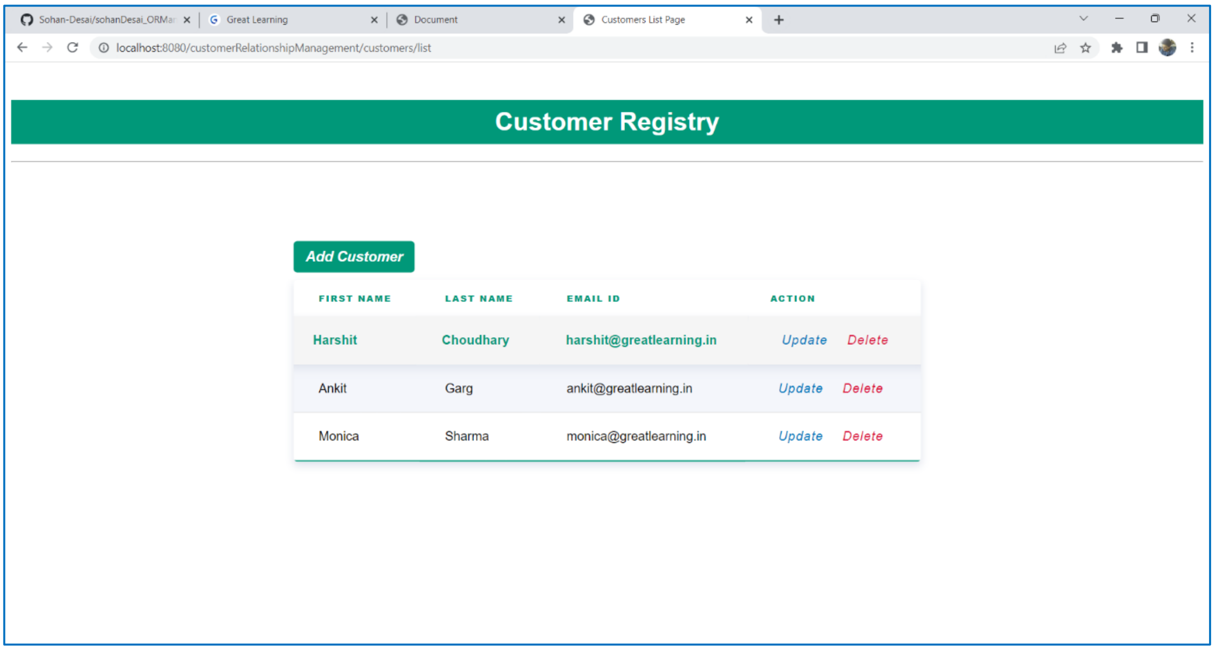
Customer table



localhost:8080/customerRelationshipManagement/customers/list

Customer Registry

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	*Update* *Delete*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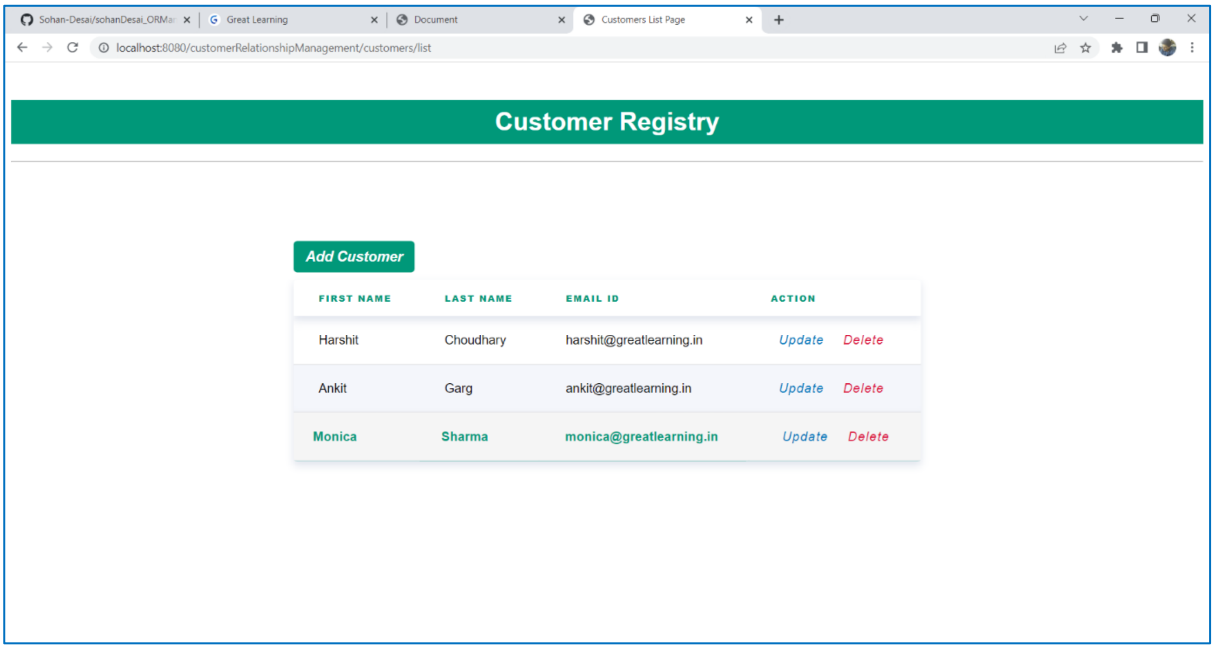
Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list
Customer Registry
Add Customer

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete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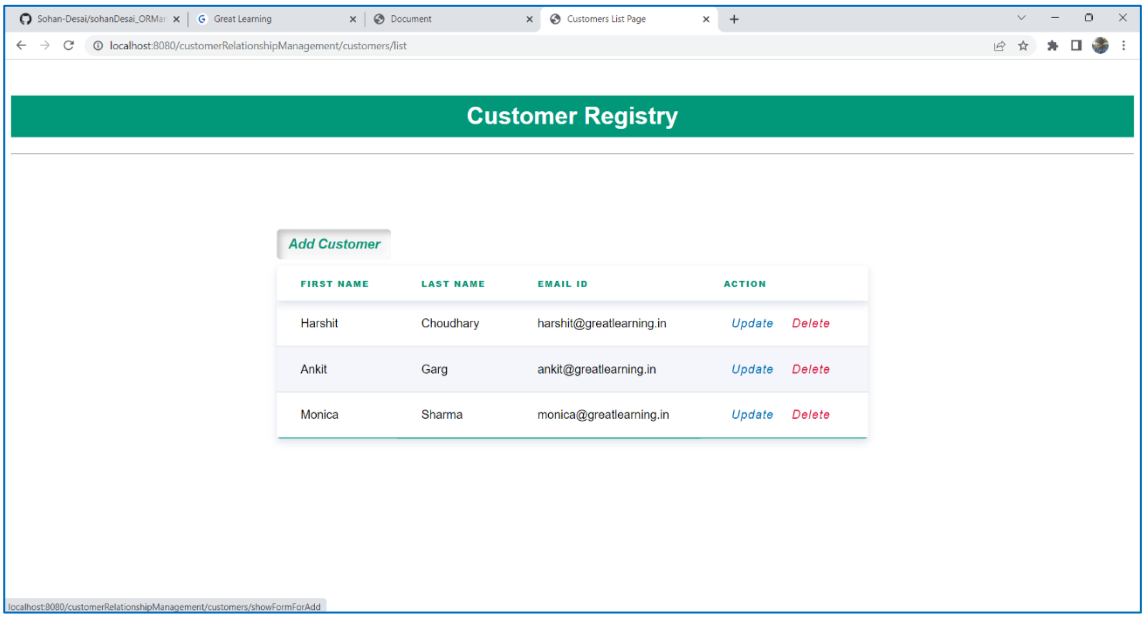
Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list
Customer Registry
Add Customer

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete

Both the “**Add Customer**” and table body rows change appearance when cursor hovers on them.

While the rows get slightly enlarged (by 2%) and the inline text changes color, size and thickness.

Whereas the “**Add Customer**” button takes appearance of an inset button.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Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list

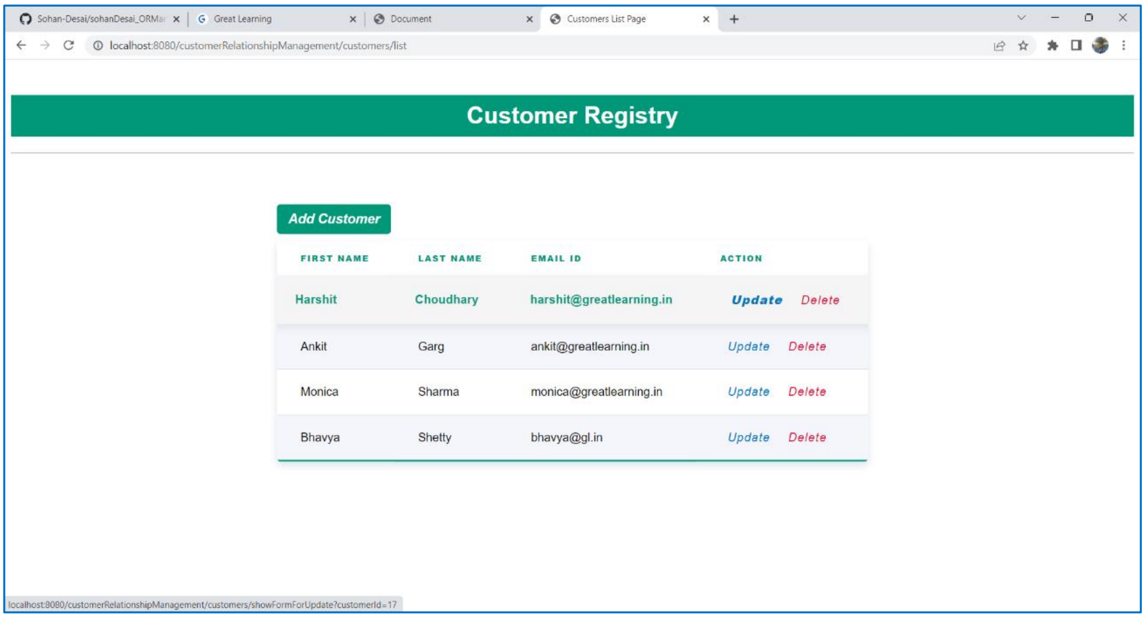
Customer Registry

Add Customer

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete

localhost:8080/customerRelationshipManagement/customers/showFormForAdd

Similarly, the “**Update**” and “**Delete**” hyperlinks increase in font-weight when the cursor hovers on them.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Customers List Page
localhost:8080/customerRelationshipManagement/customers/list

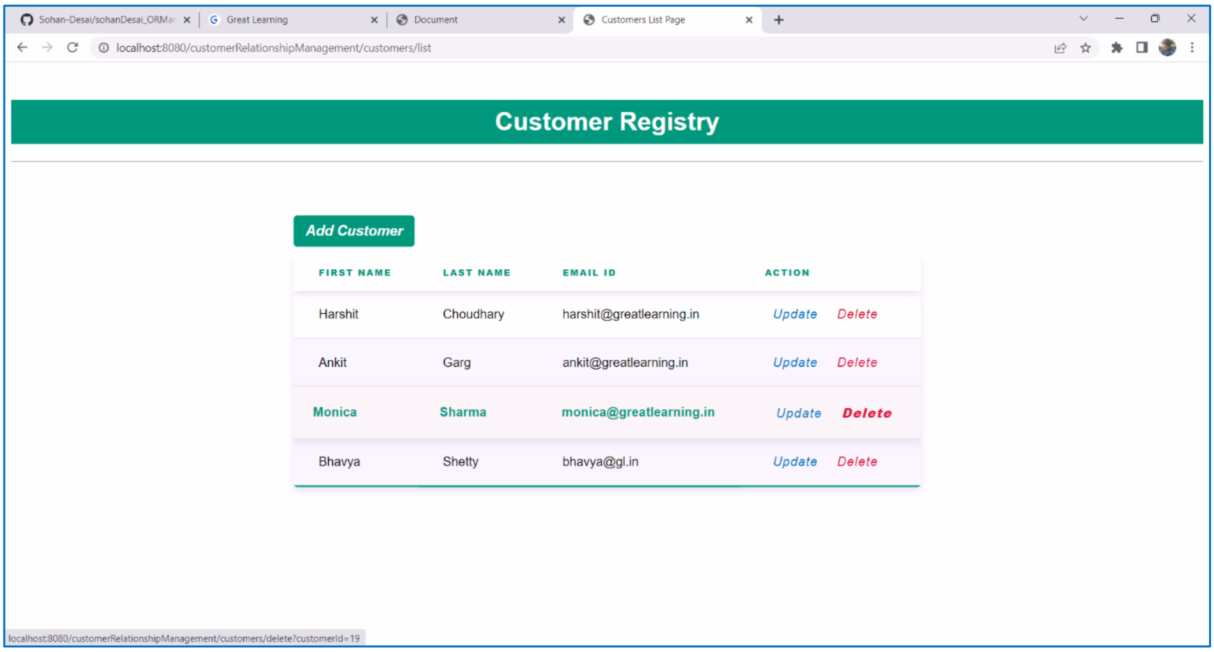
Customer Registry

Add Customer

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete
Bhavya	Shetty	bhavya@gl.in	Update Delete

localhost:8080/customerRelationshipManagement/customers/showFormForUpdate?customerId=17

Update link hover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Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list
localhost:8080/customerRelationshipManagement/customers/delete?customerId=19

Customer Registry

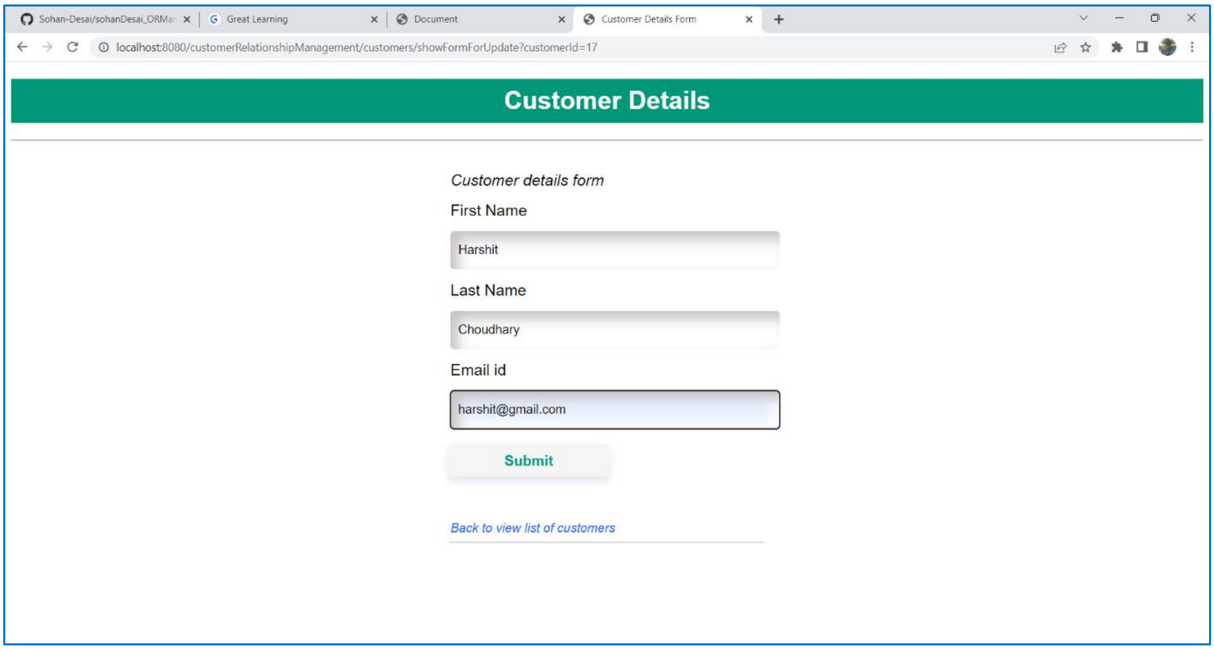
Add Customer

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete
Bhavya	Shetty	bhavya@gl.in	Update Delete

Delete link hover

On the clicking the **Update** link, the "**Customer details**" form loads, pre-populated with existing data.

User can make necessary changes and click on "**Submit**" button.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Document
Customer Details Form
localhost:8080/customerRelationshipManagement/customers/showFormForUpdate?customerId=17

Customer Details

Customer details form

First Name: Harshit

Last Name: Choudhary

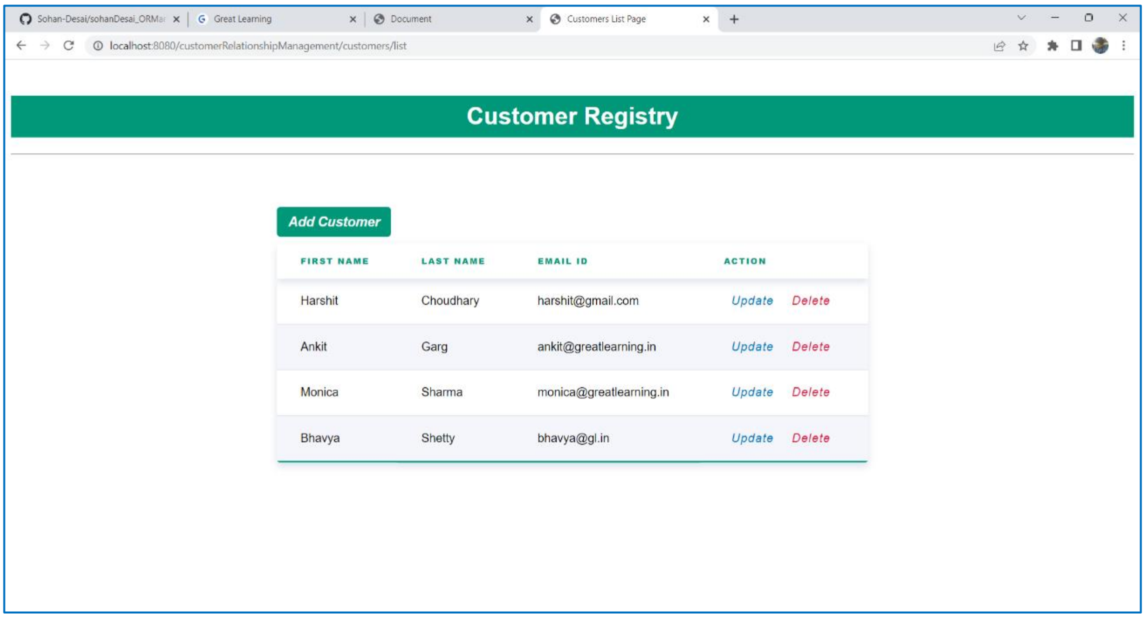
Email id: harshit@gmail.com

Submit
Back to view list of customers

After clicking on "**Submit**" button. The updated record gets displayed on customer list page.

Eg: harshit@greatlearning.in is updated to harshit@gmail.com

Here we see the record has been updated.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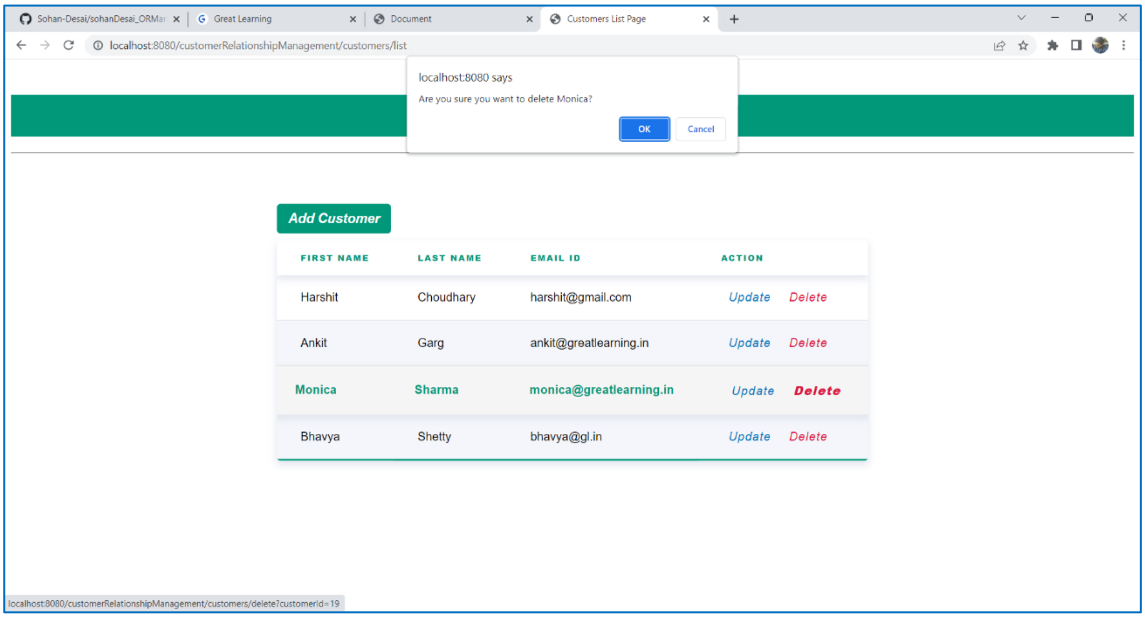
Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list
Add Customer

Customer Registry

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@gmail.com	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete
Bhavya	Shetty	bhavya@gl.in	Update Delete

Finally, on clicking the **Delete** link, a message pops up on the page asking to confirm whether to delete concerned record from database.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Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list
OK
Cancel
Add Customer

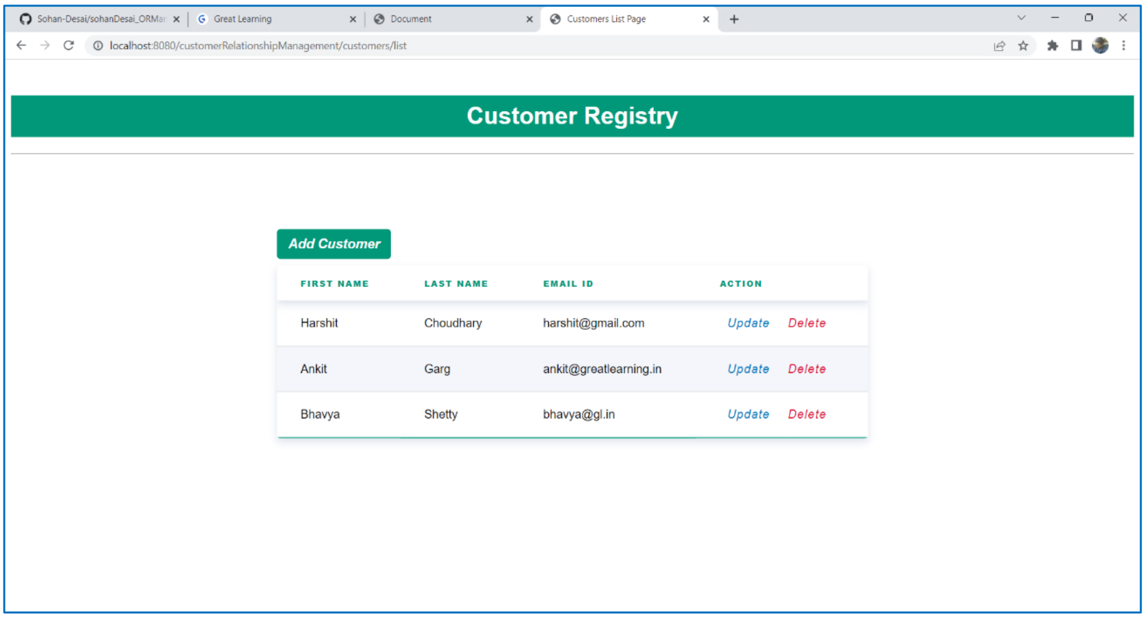
localhost:8080 says

Are you sure you want to delete Monica?

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@gmail.com	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Monica	Sharma	monica@greatlearning.in	Update Delete
Bhavya	Shetty	bhavya@gl.in	Update Delete

localhost:8080/customerRelationshipManagement/customers/delete?customerId=19

On confirmation, the record gets deleted while remaining records are displayed on the page.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Document
Customers List Page
localhost:8080/customerRelationshipManagement/customers/list
Add Customer

Customer Registry

FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@gmail.com	Update Delete
Ankit	Garg	ankit@greatlearning.in	Update Delete
Bhavya	Shetty	bhavya@gl.in	Update Delete

Monica's records are deleted

Thus, we have successfully checked all the functionalities of our Spring MVC project.

Thank you!

#Note->

Please note that there is a minor jitter in the header row whenever the cursor hovers over last row of table. I however couldn't deduce the exact reason for that bug.

Also you will find a video recording of this project on my google drive. Link to which is I've shared below.

https://drive.google.com/drive/folders/14Ji3uxexF9MAJ0v2_7xj6zHzQv73_2KH?usp=sharing

Thanks again!