

# 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

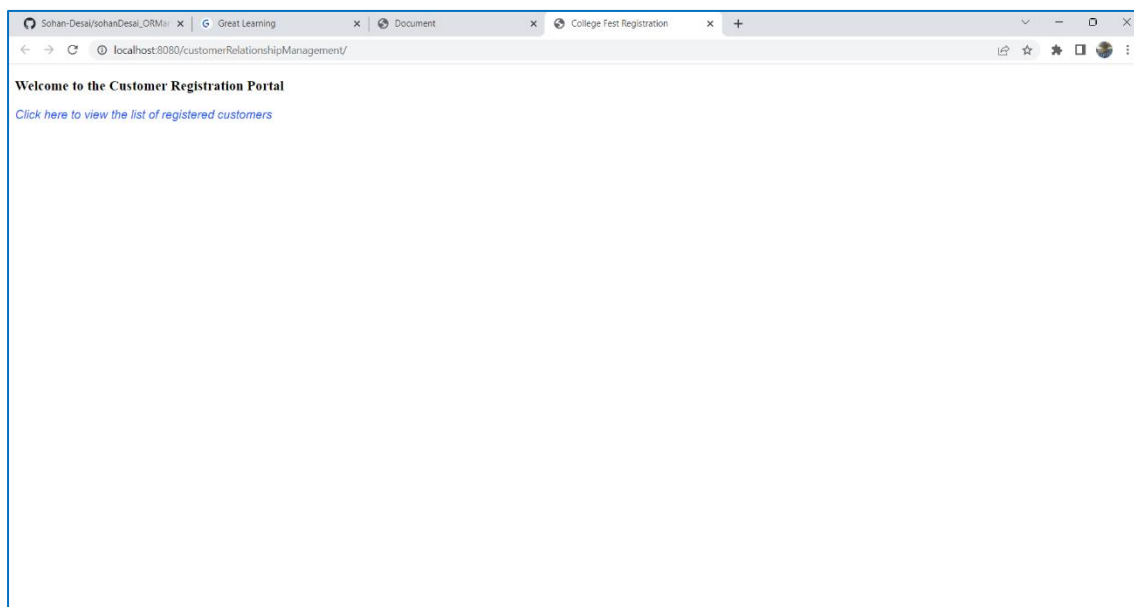
The application performs following functions ->

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 see each of these functionalities in greater detail

## The Main page

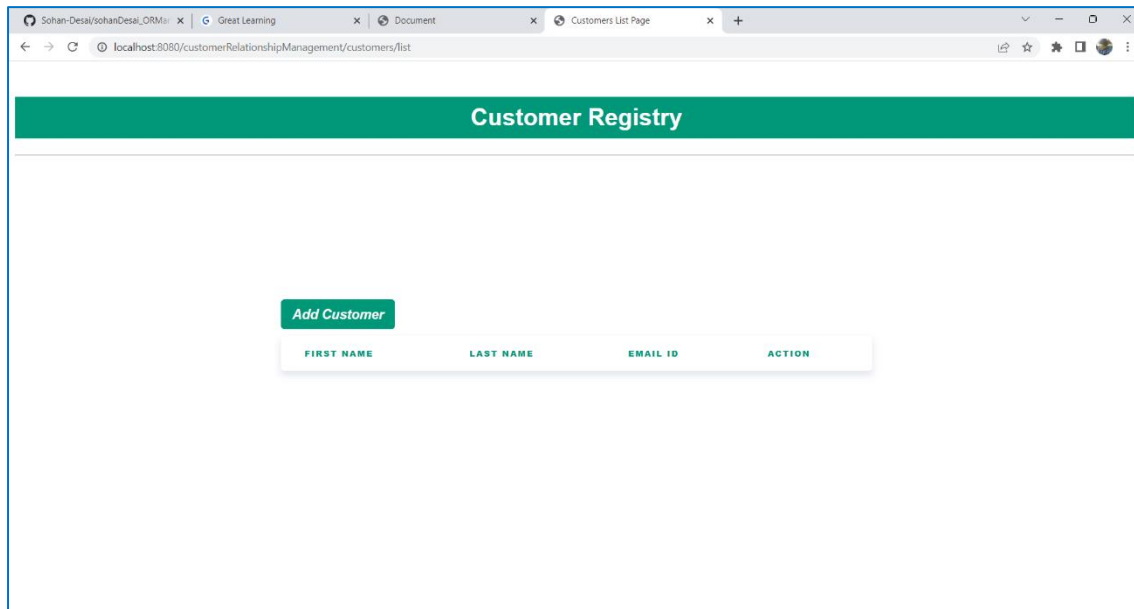
This is the default page that gets loaded when the application is booted on Tomcat server. It has a welcome message and link to **Customer** list page.



## 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.



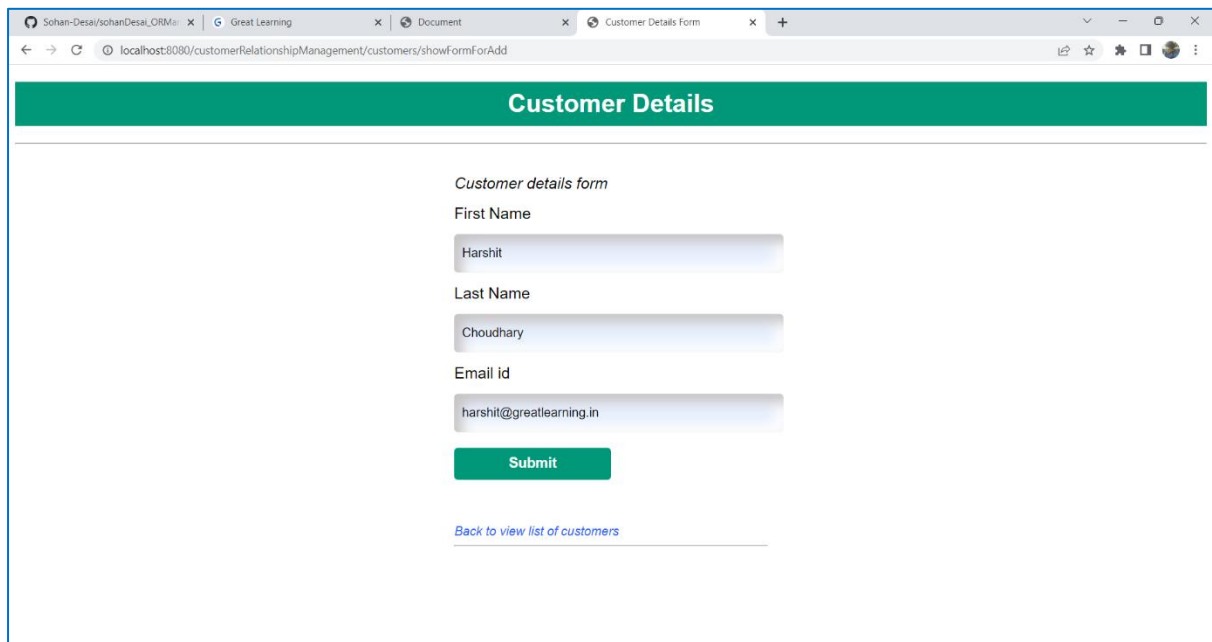
The table has 4 columns. Three of which are customer attributes whereas the fourth column is an action column. This column will display the action buttons viz. Update and Delete.

Clicking on “Add Customer” button takes us to customer form page.

## Customer Form page

A screenshot of a web browser showing the 'Customer Details' form page. The page has a green header bar with the text 'Customer Details'. Below the header, there is a form titled 'Customer details form'. The form contains three input fields: 'First Name', 'Last Name', and 'Email id'. Below these fields is a green button labeled 'Submit'. At the bottom of the form, there is a link that says 'Back to view list of customers'.

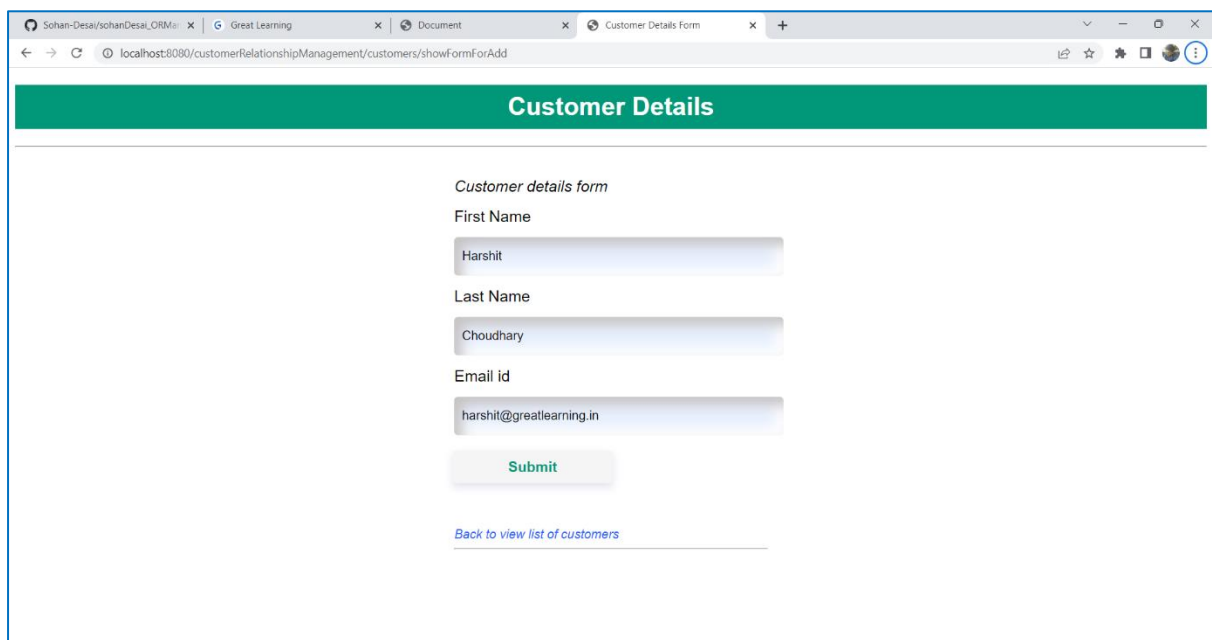
This page has a header row displaying text “Customer Details”. Below it are the 3 fields along with their labels.



The screenshot shows a web browser window with the URL `localhost:8080/customerRelationshipManagement/customers/showFormForAdd`. The page has a green header bar with the text "Customer Details". Below the header, the form is titled "Customer details form". It contains three input fields: "First Name" with the value "Harshit", "Last Name" with the value "Choudhary", and "Email id" with the value "harshit@greatlearning.in". Below these fields is a green "Submit" button. At the bottom of the form, there is a link that says "Back to view list of customers".

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.



This screenshot is identical to the previous one, but the "Submit" button is now light gray with a green border, indicating it is being hovered over by the mouse cursor. The other elements of the form remain the same.

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 be populated before submitting the details.

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

Customer Details

Customer details form

First Name  
Harshit

Last Name  
Choudhary

Email id  
Email id

Submit Please fill out this field.

[Back to view list of customers](#)

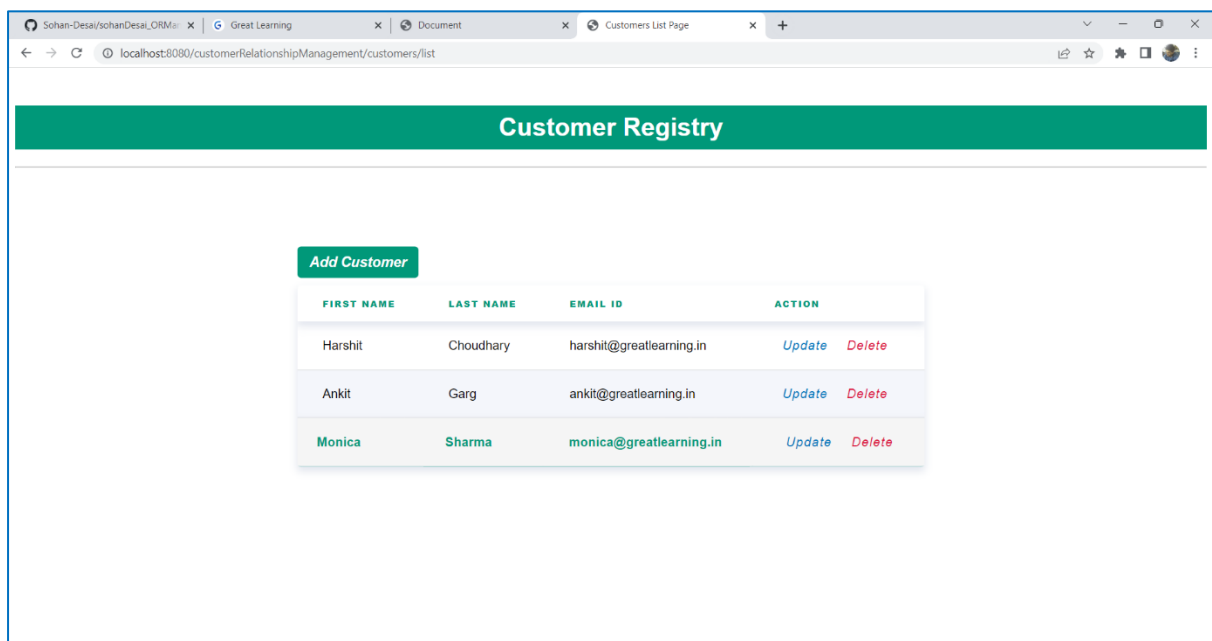
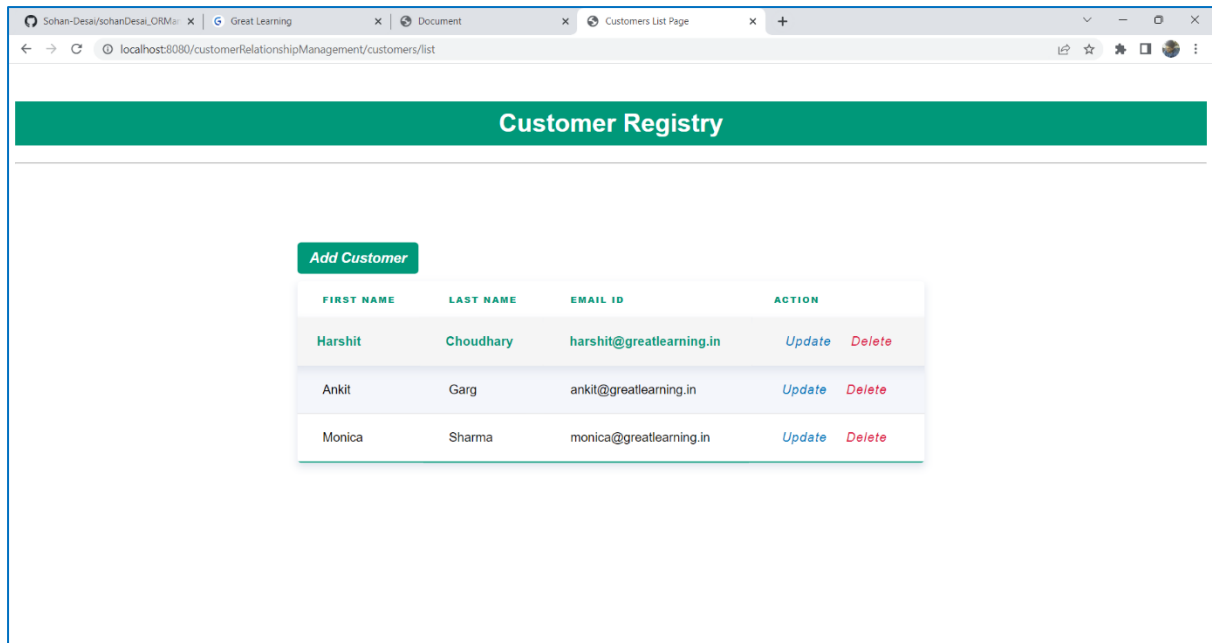
The entered records get displayed on customer list page.

## Customer table

Customer Registry

Add Customer

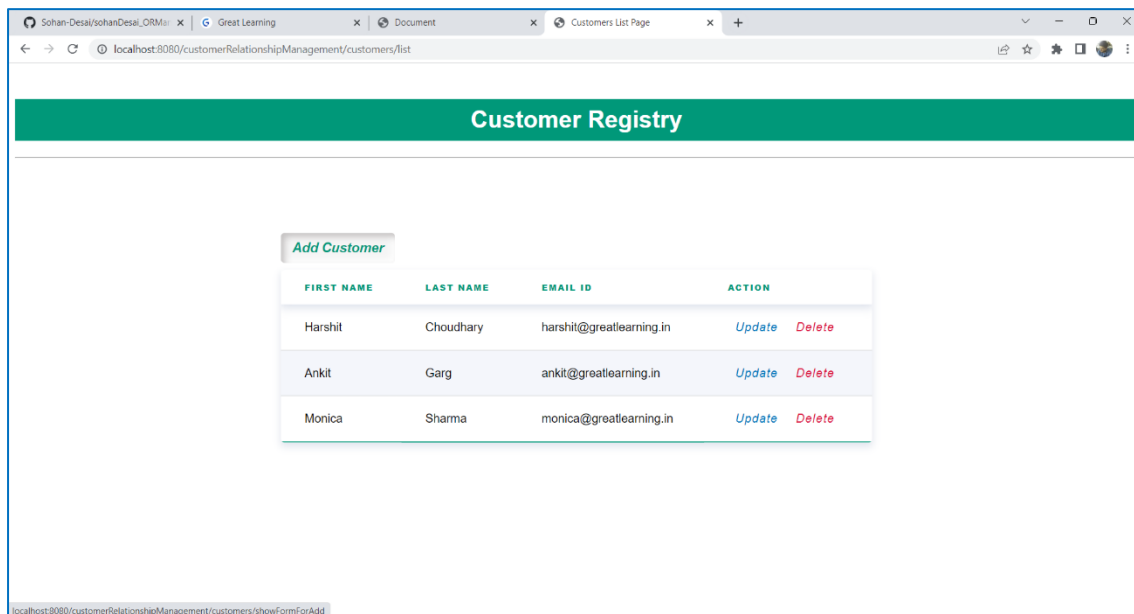
FIRST NAME	LAST NAME	EMAIL ID	ACTION
Harshit	Choudhary	harshit@greatlearning.in	<a href="#">Update</a> <a href="#">Delete</a>



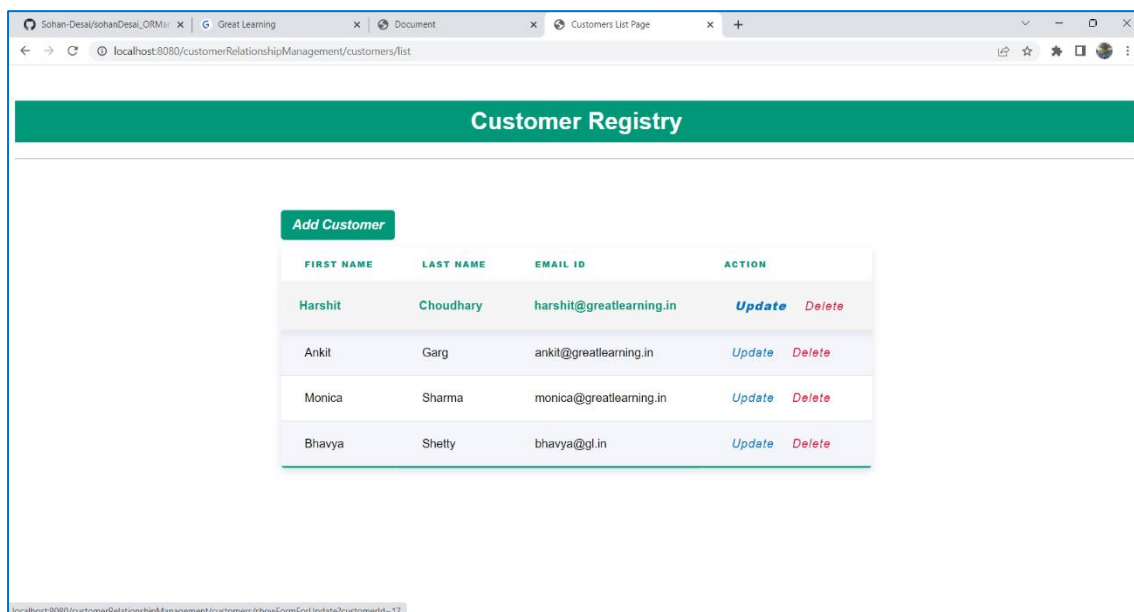
Both the “Add Customer” and table body rows change appearance when cursor hovers on them.

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

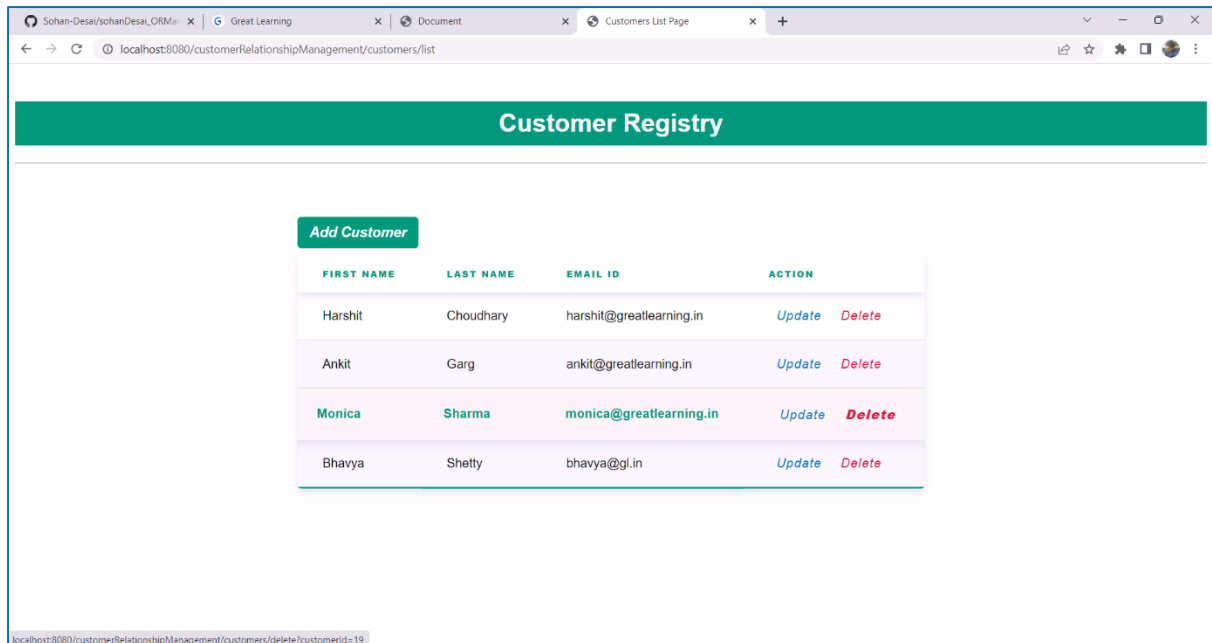
Whereas the “Add Customer” button takes appearance of an inset button.



Similarly, the “Update” and “Delete” hyperlinks increase in font-weight when the cursor hovers on them.



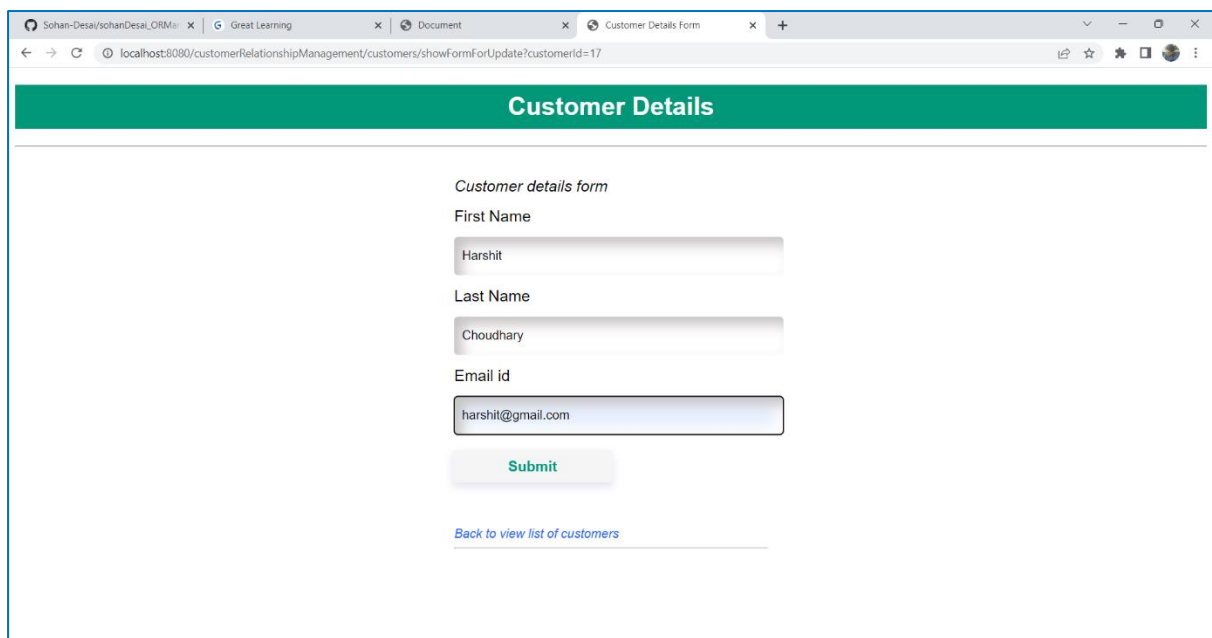
*Update link hover*



### *Delete link hover*

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

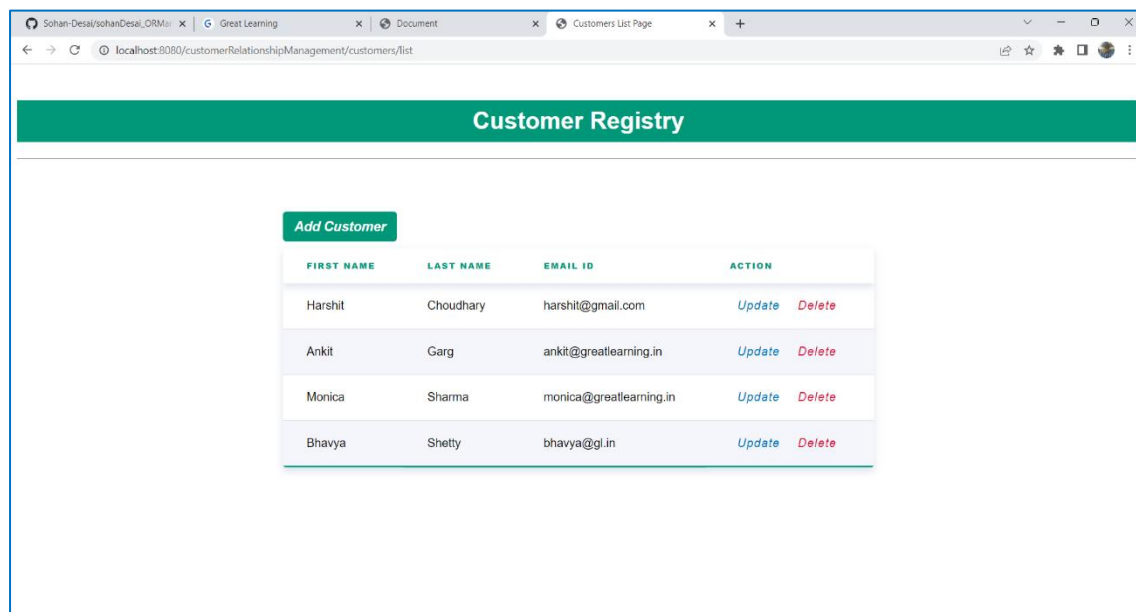
User can make necessary changes and click on “Submit” button.



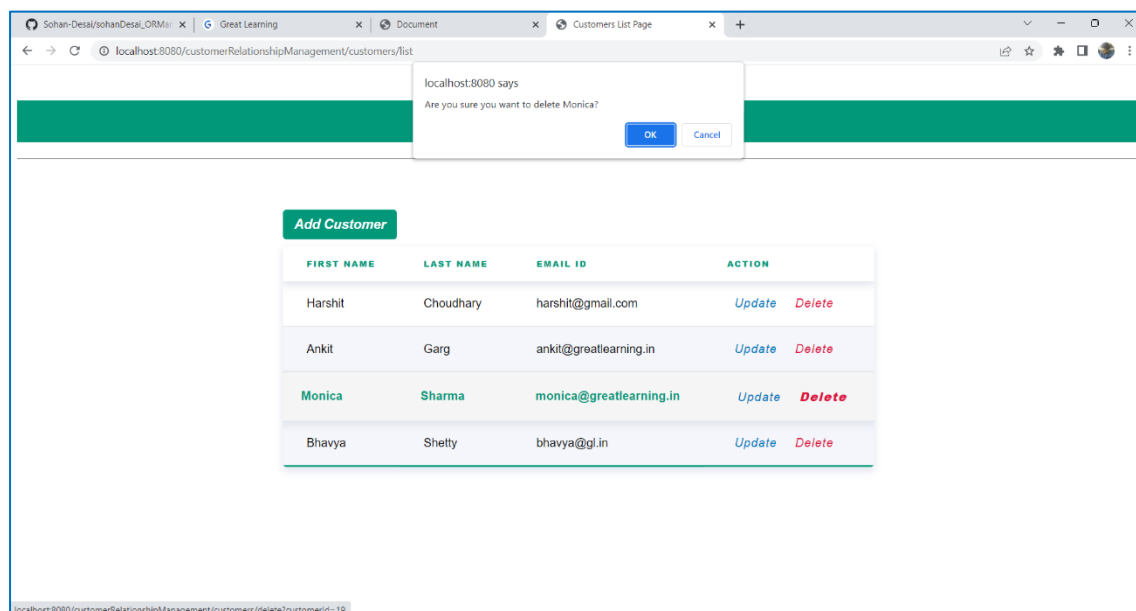
After clicking on “Submit” button. The updated record gets displayed on customer list page.

Eg: [harshit@greatlearning.in](#) is updated to [harshit@gmail.com](#)

Here we see the record has been updated.

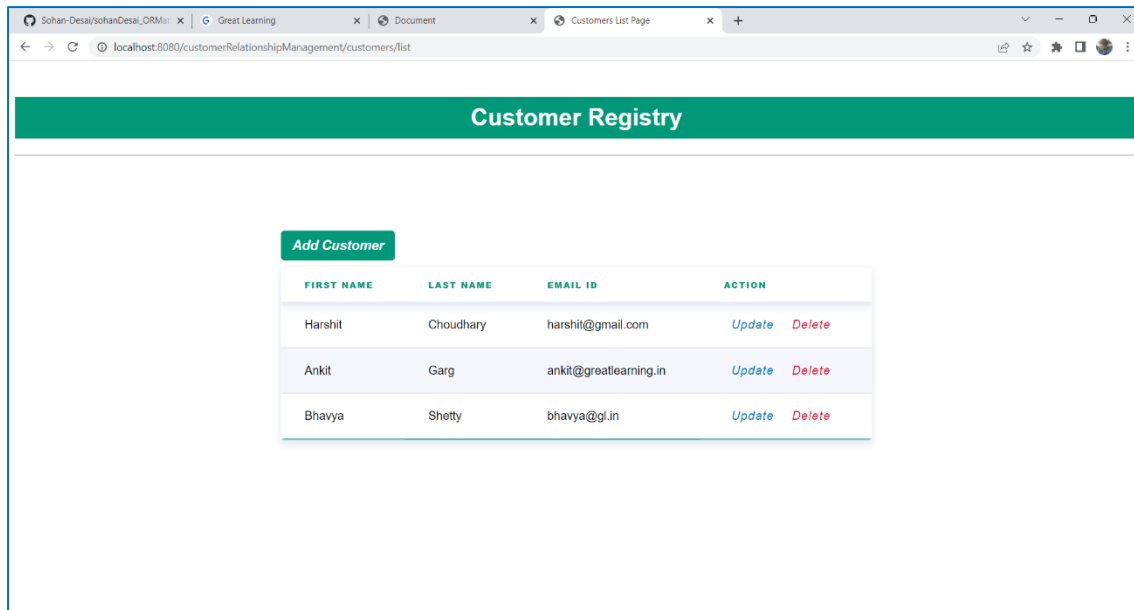


Finally, on clicking the Delete link, a message pops up on the page asking to confirm whether to delete concerned record from database.



On confirmation, the record gets deleted while remaining records are displayed on the page.





*Monica's records are deleted*

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

**Thank you!**

### Note->

Please note that I couldn't properly write the CSS code for table hover effect.

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

Thanks again!