

Back End

Softwares

- JDK 1.8
- Eclipse IDE
- MySQL database
- Maven
- Node.js
- Angular CLI
- VSC

Run the queries provided in `CreateQueries-MySQLDB.sql` on `mysql` database

It will create database *profile_contact_db* and two tables will be created

```
mysql> show tables;
+-----+
| Tables_in_profile_contact_db |
+-----+
| profile                       |
| profile_contacts              |
+-----+
```

Running backend:

Note: Ensure Java & Maven is installed and mvn path is configured

1. Open terminal & navigate to the `my-contact-system` folder where you have `pom.xml`
2. Enter `mvn clean package` command
mvn clean package

3. You will get a target folder and a jar file, now you execute the jar using the command

```
java -jar target\jar-file-name.jar --server.port = 9090
```

```
java -jar target\my-contact-system-0.0.1-SNAPSHOT.jar --server.port=9090
```

4. Tomcat server starts in 9090 port and you can use below URI's to call the webservises

Back End services are developed with Spring Boot and REST

Below are API's URL

- 1) Get Contact API: `/api/profile/{userId}/contacts`
- 2) Search Contact by Name API:
`/api/profile/{userId}/{name}`
- 3) Store Profile API: `/api/createProfile`
- 4) Authenticate API: `/api/login/{userId}/{password}`
- 5) Get Profile API: `/api/profile/{userId}`
- 6) Update Password API:
`/api/updateProfile/{userId}/{password}`
- 7) Delete Profile API: `/api/profile/{userId}`
- 8) Delete Contact API:
`/api/profile/{userId}/delete/{contactId}`
- 9) Add Contact API: `/api/profile/{userId}/addContact`

Front End

Front End user interface can be developed using Angular or React or Vue.js.

Here we have used angular framework and bootstrap.js to style the angular components

Running the angular app

Navigate to the *mycontacts-app-ui* and hit the below commands

npm install

- *installs the node_modules*

npm start

- *runs the application*

Note: mycontacts-app-ui runs by default on 4200 port and it connects to backend webservice 9090 port from its code, hence run your back end on 9090 port only.

Diagram for Contact Management System

This is a medium to complex case study, Perform client side validations and show the validation errors to the client

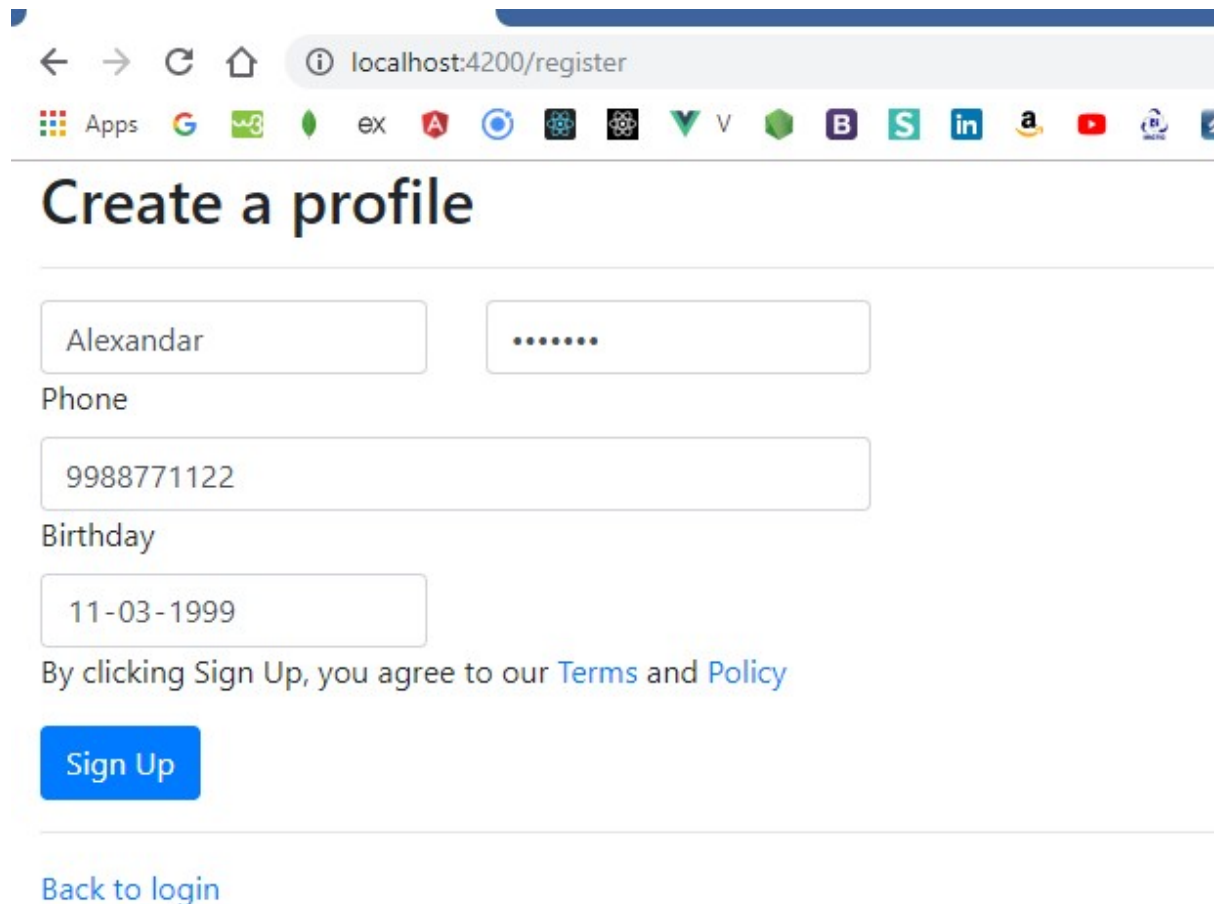
Screen 1: Login Form: This is like a home page which is shown to user

Login Form

<input type="text" value="Enter User ID"/>	<input type="text" value="Enter password"/>	<input type="button" value="Login"/>
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Before login user has to register hence user will click on Create Profile which will show below screen;

Screen2: Registratio Form, if you try to missout any field a validation error must be shown in the page



localhost:4200/register

Create a profile

Alexandar

.....

Phone

9988771122

Birthday

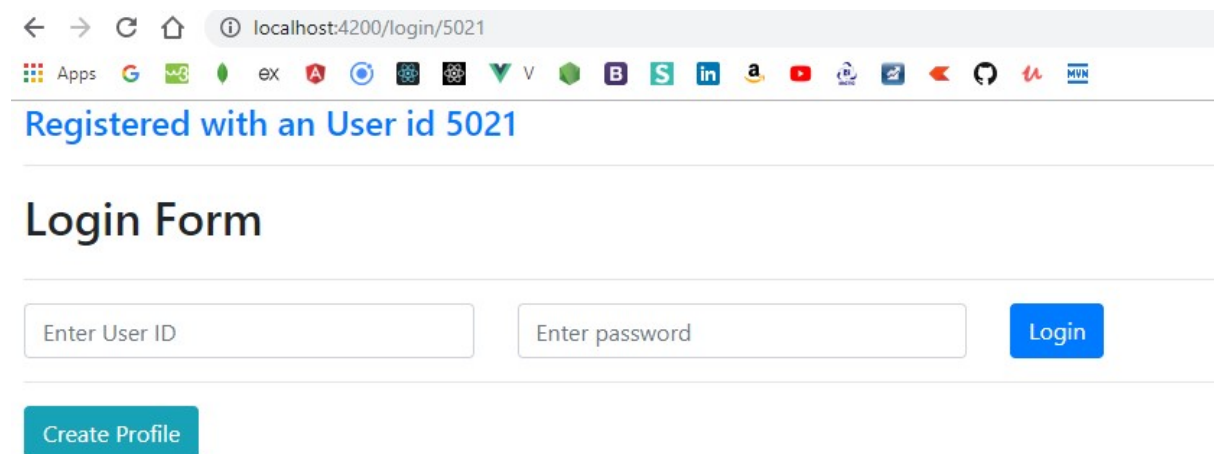
11-03-1999

By clicking Sign Up, you agree to our [Terms](#) and [Policy](#)

Sign Up

[Back to login](#)

When user registers it redirects to login as below



localhost:4200/login/5021

Registered with an User id 5021

Login Form

Enter User ID

Enter password

Login

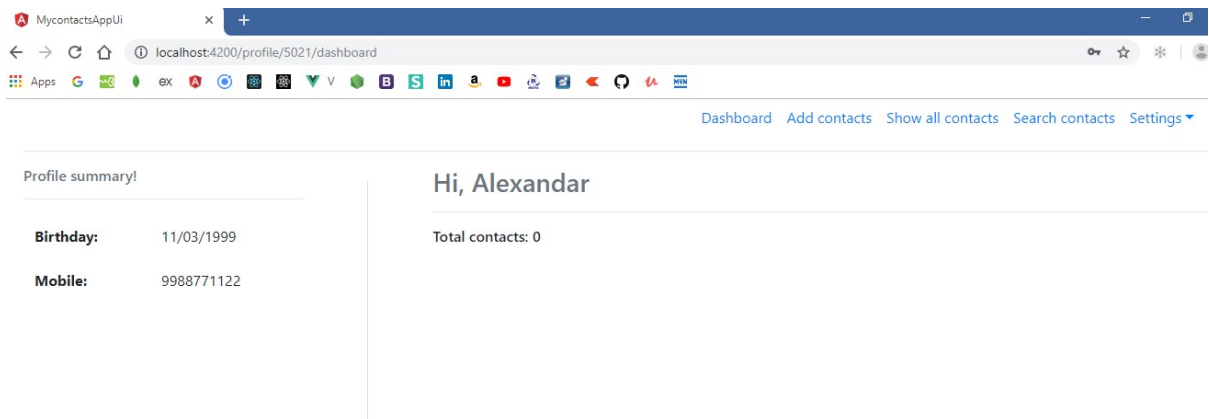
Create Profile

Now the user will login with 5021 and password which will not have any contacts by default, when he logs in if the authentication fails below would be the error.

Login Form

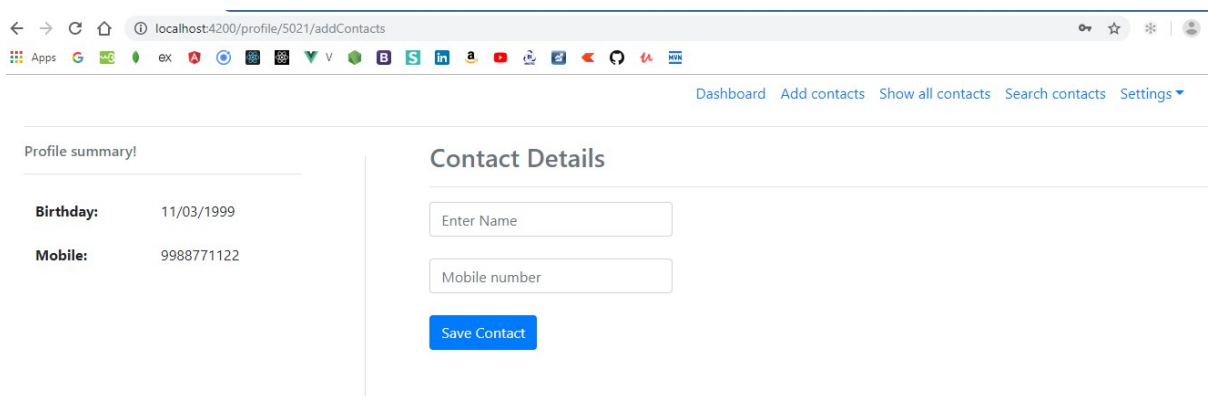
Username or Password is invalid

When the user enters correct userid and password user will be taken to dashboard



Notice the paths like profile/5021/dashboard, and the Total Contacts in the dashboard, settings link, profile summary,

When you go to add contacts you will



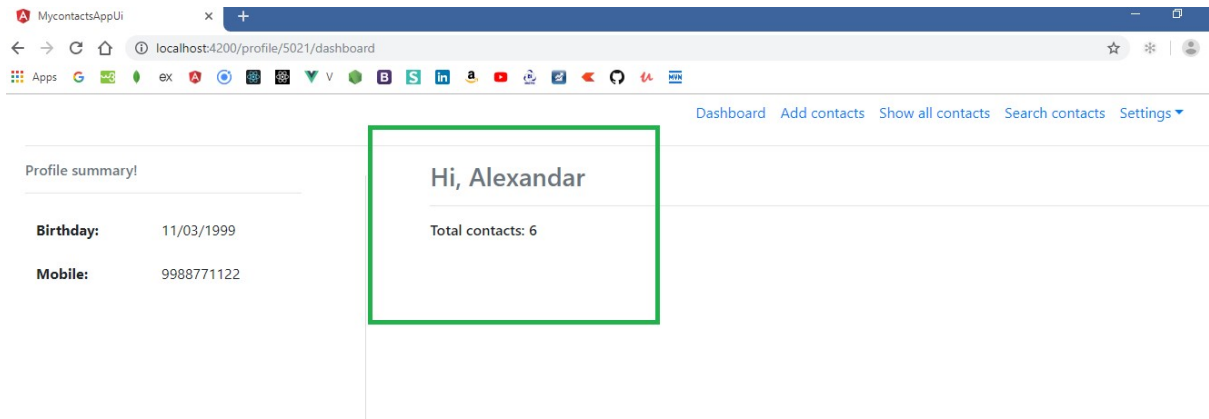
You can add contacts, but notice the url it always have the userId after profile like profile/5021/addContacts, you can add contacts now

The screenshot shows a web application interface. At the top, there is a navigation bar with links: Dashboard, Add contacts, Show all contacts, Search contacts, and Settings. Below the navigation bar, the page is divided into two main sections. On the left, under the heading 'Profile summary!', there is a form with two fields: 'Birthday:' with the value '11/03/1999' and 'Mobile:' with the value '9988771122'. On the right, under the heading 'Contact Details', there is a form with two input fields. The first field contains the name 'Chandler' and the second field contains the phone number '2992933993'. Below these fields is a blue button labeled 'Save Contact'. A red rectangular box highlights the 'Save Contact' button and the text 'Chandler added to your contact' which appears below it. The browser's address bar at the top shows the URL 'localhost:4200/profile/5021/dashboard'.

Now you can click on dashboard that shows the contact count as 1, earlier it was 0, you can add any number of contacts

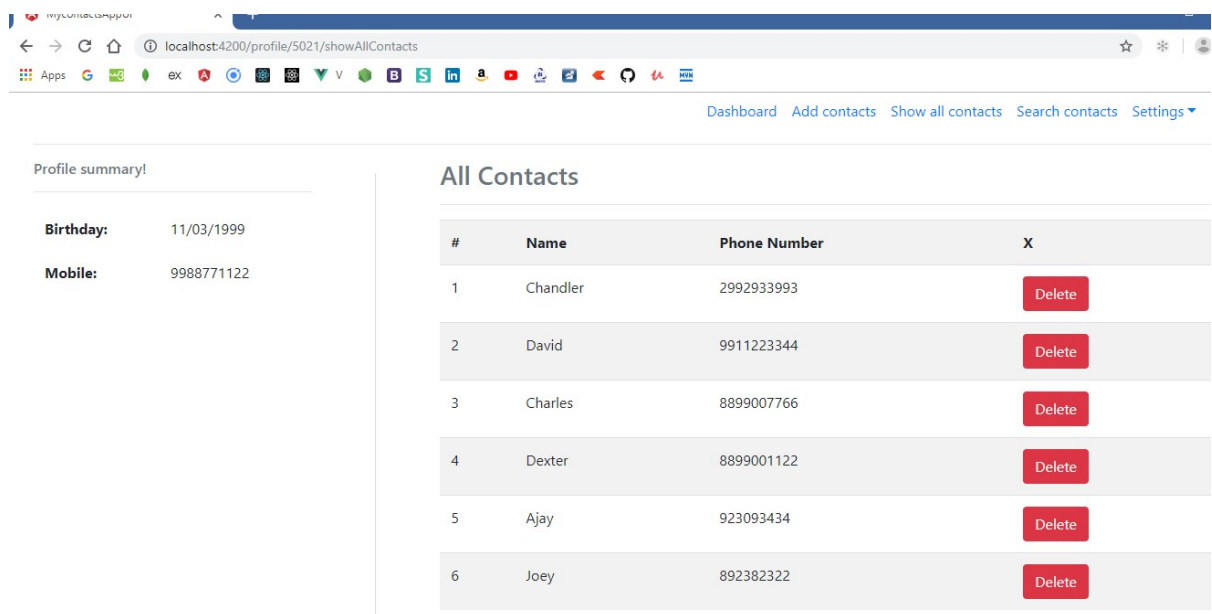
The screenshot shows the 'Dashboard' page of the web application. The navigation bar at the top is the same as in the previous screenshot. Below the navigation bar, the page is divided into two main sections. On the left, under the heading 'Profile summary!', there is a form with two fields: 'Birthday:' with the value '11/03/1999' and 'Mobile:' with the value '9988771122'. On the right, under the heading 'Hi, Alexandar', there is a section titled 'Total contacts: 1'. The browser's address bar at the top shows the URL 'localhost:4200/profile/5021/dashboard'.

Again notice the url which has the 5021, you will always have the userId in the url that's how you will make a call to the back end server, After adding few more user this would be the dashboard

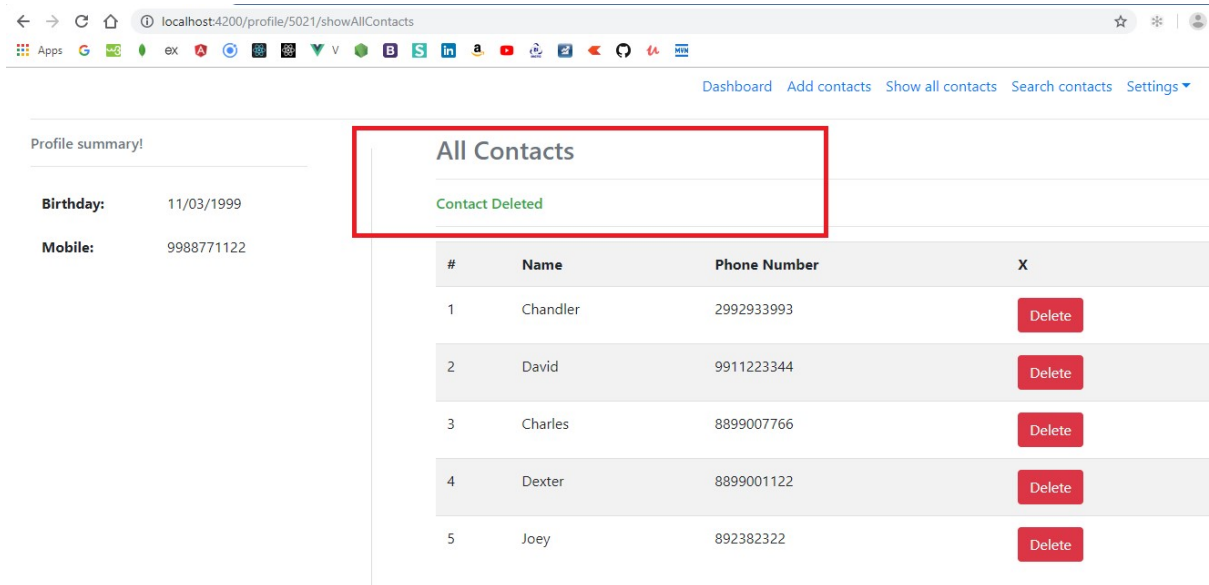


Show all contacts will show you below details

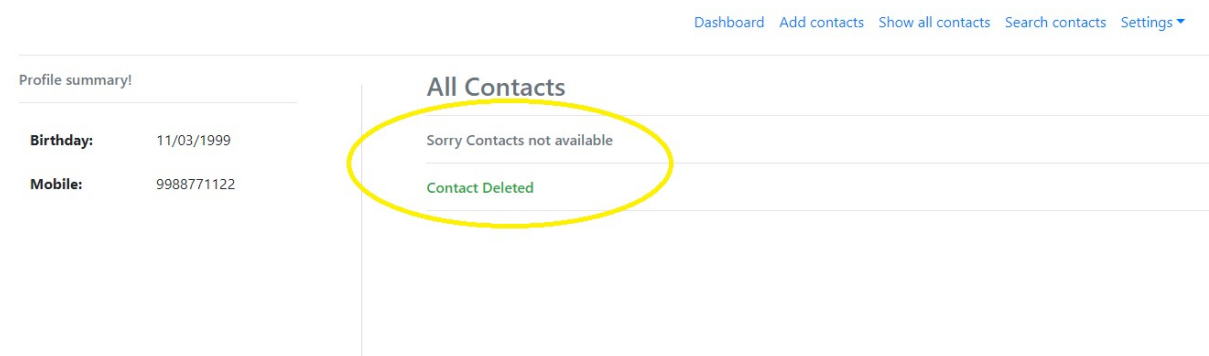
You will see a delete button and also the url is now profile/5021/showAllContacts



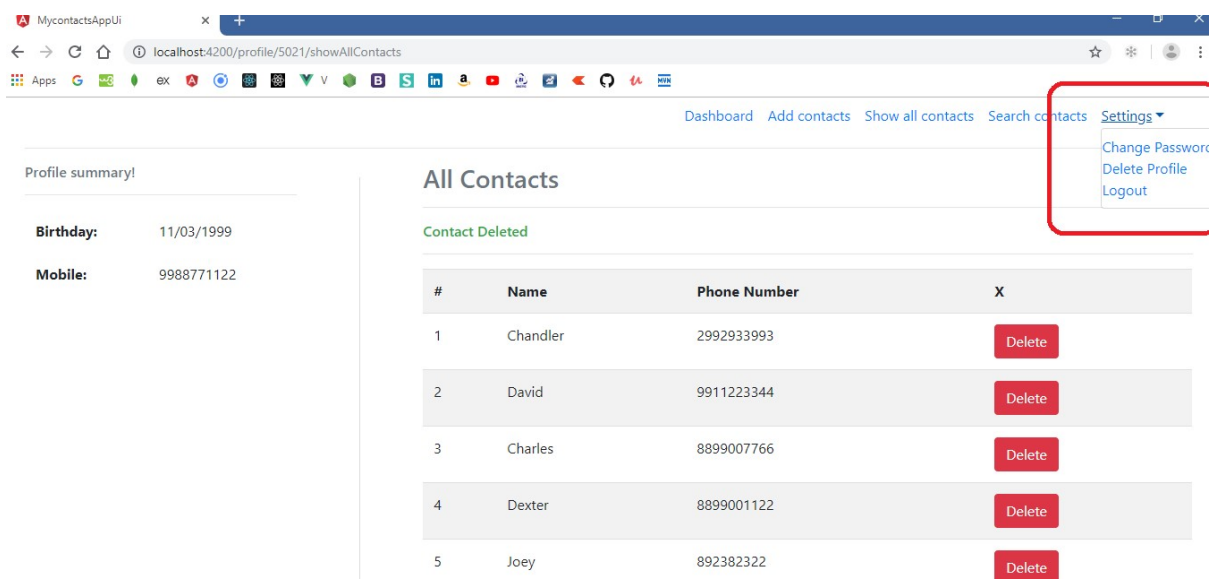
If you delete contact you will see a message



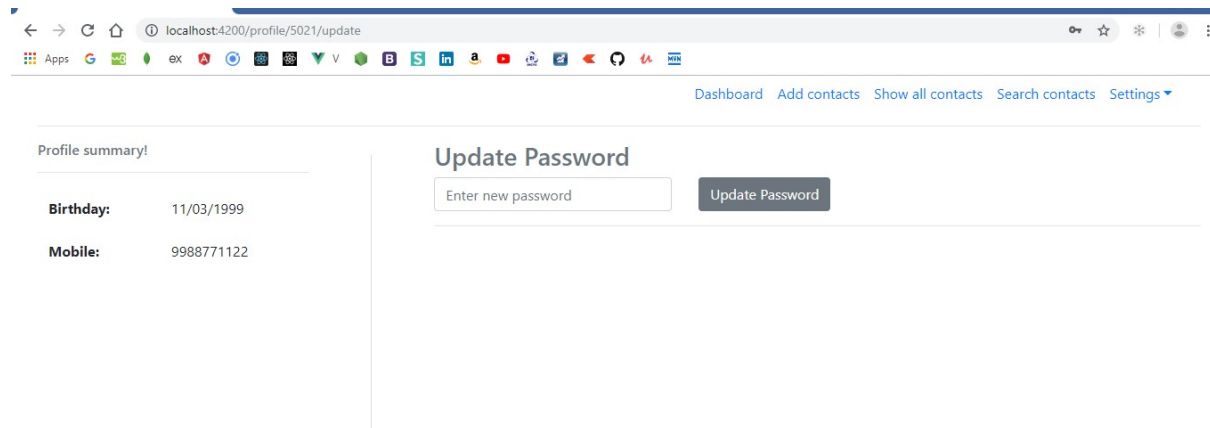
When you delete all contacts you will see the message like below



You can change the profile by visiting the settings which is a drop down like below:

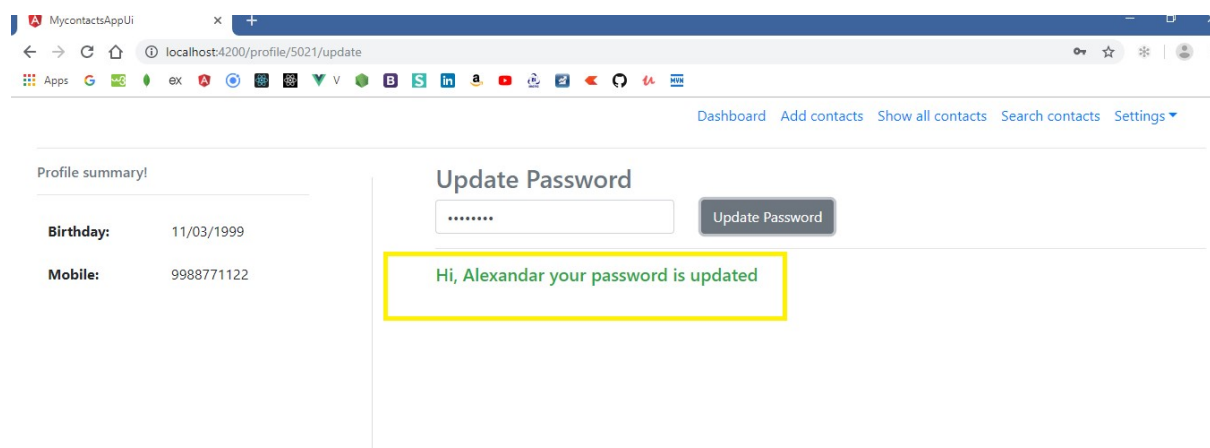


When you click on change password you will go to update as below, here you can update the password if you want



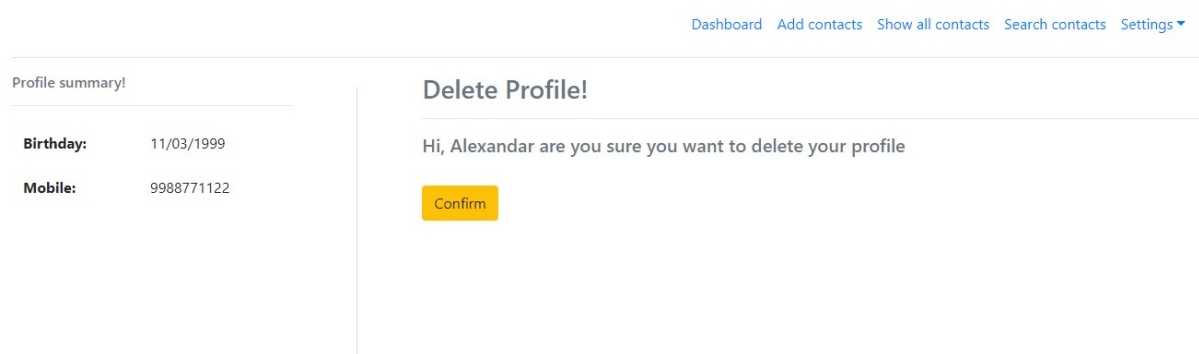
The screenshot shows a web browser at localhost:4200/profile/5021/update. The page has a navigation bar with links: Dashboard, Add contacts, Show all contacts, Search contacts, and Settings. On the left, a 'Profile summary!' section displays 'Birthday: 11/03/1999' and 'Mobile: 9988771122'. The main area is titled 'Update Password' and contains a text input field labeled 'Enter new password' and a dark grey 'Update Password' button.

After updating the password



This screenshot shows the same 'Update Password' page after a successful update. A green message box with a yellow border appears, stating 'Hi, Alexandar your password is updated'. The 'Update Password' button remains visible.

You can also delete profile if you want by going to delete profile in the settings that looks as below



The screenshot shows the 'Delete Profile!' page. The navigation bar is the same. The 'Profile summary!' section on the left is identical. The main area is titled 'Delete Profile!' and contains the text 'Hi, Alexandar are you sure you want to delete your profile' and an orange 'Confirm' button.

If you click on Confirm it will delete the profile and automatically go to Login page, just to keep the profile

in database it is not deleted but if you wish to delete you would not be able to login and also all contacts will be erased automatically.

Search Contacts link, Assuming you have these below 4 contacts in the database

[Dashboard](#) [Add contacts](#) [Show all contacts](#) [Search contacts](#) [Settings](#) ▼

Profile summary!

Birthday: 11/03/1999

Mobile: 9988771122

Search Contact

All Contacts

#	Name	Phone Number	X
1	Chandler	2992933993	<button>Delete</button>
2	David	9911223344	<button>Delete</button>
3	Charles	8899007766	<button>Delete</button>
4	Dexter	8899001122	<button>Delete</button>

Now if you enter C you would only see the contacts starting with C as below:

[Dashboard](#) [Add contacts](#) [Show all contacts](#) [Search contacts](#) [Settings](#) ▼

Profile summary!

Birthday: 11/03/1999

Mobile: 9988771122

Search Contact

All Contacts

#	Name	Phone Number	X
1	Chandler	2992933993	<button>Delete</button>
2	Charles	8899007766	<button>Delete</button>

You can delete the contact if you would like, this search component make use of show all components internally

If the matching records not found below would be the error message it can show

The screenshot shows a web browser at localhost:4200/profile/5021/searchContact. The page has a navigation bar with links: Dashboard, Add contacts, Show all contacts, Search contacts, and Settings. On the left, a 'Profile summary!' section displays 'Birthday: 11/03/1999' and 'Mobile: 9988771122'. The main area features a 'Search Contact' form with a text input containing 'S'. To the right of the input, a red error message states 'Sorry no matching records with S'. Below the search form is an 'All Contacts' section with a table header containing '#', 'Name', 'Phone Number', and 'X'.

#	Name	Phone Number	X
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Now you can logout: It will show you login page again

Login Form

The login form consists of two input fields: 'Enter User ID' and 'Enter password'. A blue 'Login' button is positioned to the right of the password field. Below these fields is a teal 'Create Profile' button.

You can enhance the application to update the user phone, dob, update the contact details also.