Hello This is my project in this project

I have created a user authentication full Stack angular project

techs-which I have used in this whole(backend + frontend)
1.Microservices(2 services user-service,auth-service)
2.Spring cloud(eureks server,api gateway,cloud configuration from github).
3.Html & Css
4.Typescript
5.Angular(service,components,auth guard)

6.Database
7.Spring Boot
8.Rest Api

User Service
It has two fields
Email
password

It communicated and stores Data in database
It has 4-5 endpoints
CREATE USER
GET USER(/GET USER BY EMAIL)
PUT USER(UPDATE USER DETAILS)

DELETE USER

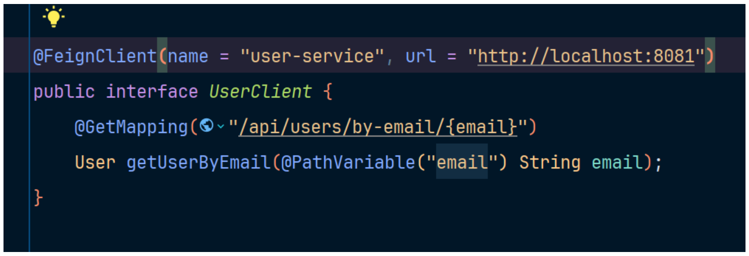
NOW THIS IS THE SERVICE WHICH COMMUNCATE WITH DATABASE

NOW FOR THIS LAYER TO AUTHICATE THS USER WE WHO SO EVER IS COMMUNCATION WE HAVE TO AUTHTICATE IT

SO WE WILL BE CREATING A AUTH LAYER

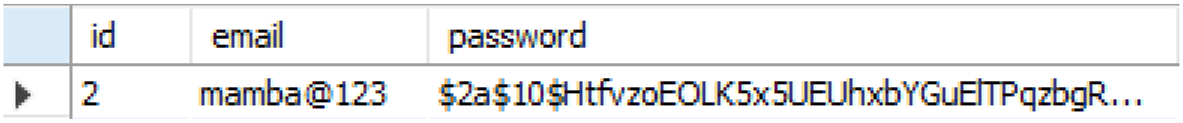
Auth-service
It authtciates the user who trie to get data(all/by userid)
now to save and match the data
we have created a model class
user
which has exact fields as user service entity
Userid,email,password-But it doesn’t stores database

even it is not connected with db
so the question is how thi will authticate that who so ever is trying to fetch data from db is the correct person
fro that we have used Feign client
we have created a class UserClient.java and used @enable Feignclient in authserviceapplication.java
by that we communicate and fetch data of user
now



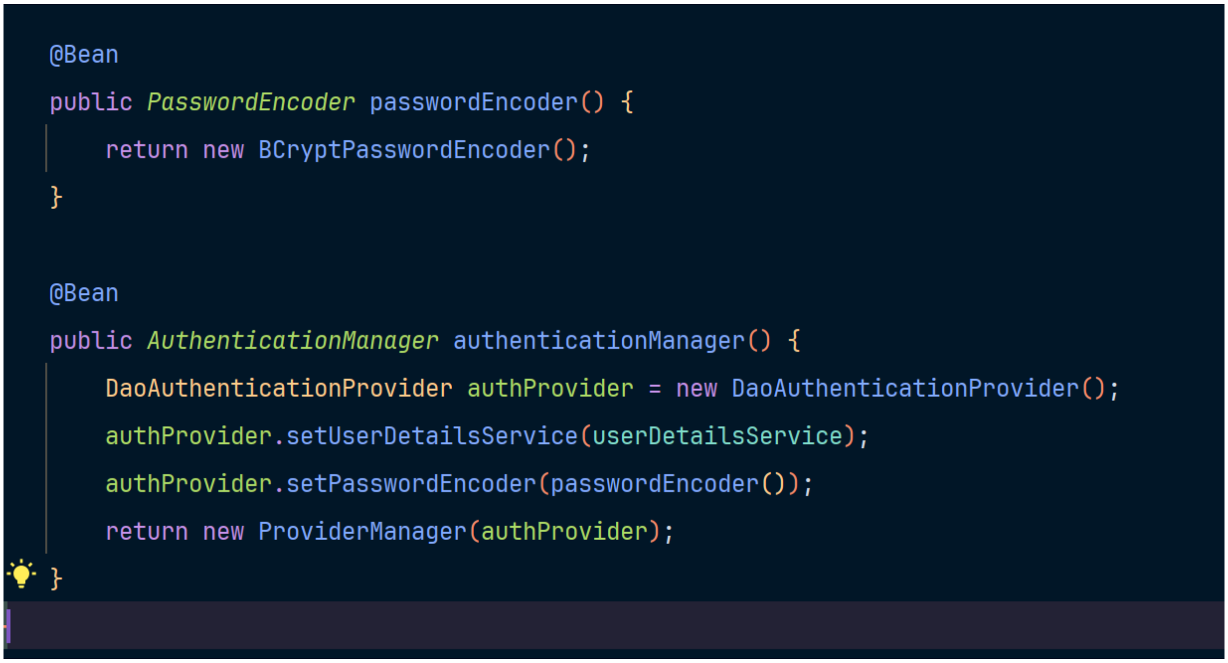
```
@FeignClient(name = "user-service", url = "http://localhost:8081")
public interface UserClient {
    @GetMapping("/api/users/by-email/{email}")
    User getUserByEmail(@PathVariable("email") String email);
}
```

And for security purpose I have done 2 things I have used Bcryptpassword encoder that saves my password with hashing it hashes my password
and store in that format in db
and to connect with db I have used Daoauthicationmanager



	id	email	password
▶	2	mamba@123	$2a$10$HtfvzoEOLK5x5UEUhxbYGuElTPqzbgR...

This way we check and authticate the user with the help of inbuilt functionUserDetailsService



```
@Bean
public PasswordEncoder passwordEncoder() {
    return new BCryptPasswordEncoder();
}

@Bean
public AuthenticationManager authenticationManager() {
    DaoAuthenticationProvider authProvider = new DaoAuthenticationProvider();
    authProvider.setUserDetailsService(userDetailsService);
    authProvider.setPasswordEncoder(passwordEncoder());
    return new ProviderManager(authProvider);
}
```

We will futher use function loadUSerByUsername and UserDetailsService to authticate

Frontend
the project Structure
components +1 IN BUILT(app.component)

- Book
- Register
- Login
- App component
- Home
- User

services

- User
- BOOK
- Auth

1 Auth guard

User
file communicates with backend
and the user component shows all the data

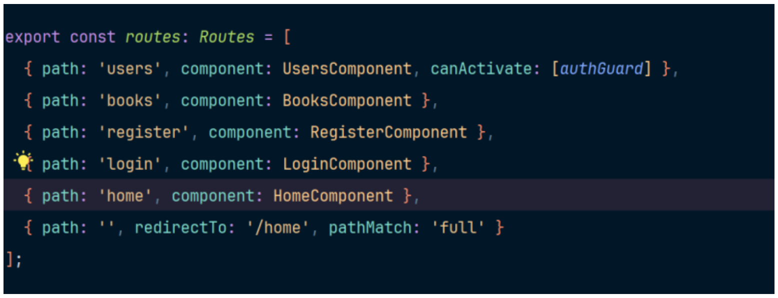
They communicate with data
and then do fetch the data in form of table
the and alongside we have the button to delete the data

Auth
authicates the user
and provides auth guard
that without login no one can access the user page
and we have good options and we have used Can Activated auth here

Login
we have a login page that searches user by username in db
here if we enter a correct we get a alert and same for wrong
here we have a button if not register then register it redirects the user to register page and a forgot password in which user can update its password(it is the update /put operation I am performing)

Register
we have a register page
where we register
with condition like minimum password length 6
and email format should be correct
and we have a link there already login if we click that we will be redirected to login page

App routes file



```
export const routes: Routes = [
  { path: 'users', component: UsersComponent, canActivate: [authGuard] },
  { path: 'books', component: BooksComponent },
  { path: 'register', component: RegisterComponent },
    path: 'login', component: LoginComponent },
  { path: 'home', component: HomeComponent },
  { path: '', redirectTo: '/home', pathMatch: 'full' }
];
```

Now the main topic of my task and my task

I was asked to do a user authtication website wilh all crud operation

How I implemented them

@@CRUD OPERATIONS-COMMUNICATE WITH BACKEND WITH THE HELP OF @CORS("*")

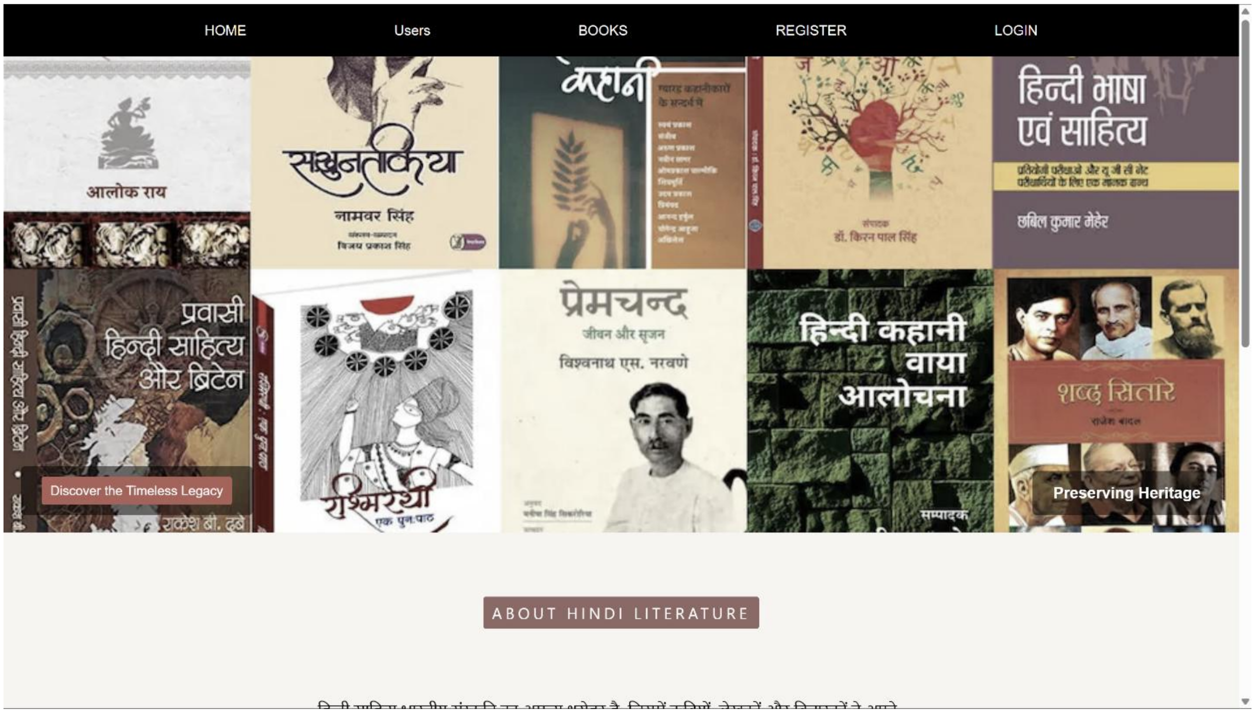
- **----POST**
  THE REGISTER PAGE – REGISTER BUTTON saves the data in db and sends a post request
- **----GET ALL USERS**
  THE USER PAGE IN THE NAVBAR- SHOWS ALL DATA IN FROM OF TABLE,WHICH GET ALL which shows the user data in form of table
- **---GETUSERBYUSERID/EMAILID**
  THE LOGIN PAGE- when we click on login it checks the user with it s id and check and authticate wheather it is correct or not
- **----PUT**
  THE LOGIN PAGE – we have a option forgot password where we can change our password and login and when we again login with updated password , it does a update operation
- **---DELETE**
  THE USER PAGE- along each row we have a delete button when we press delete it deletes the data from the database

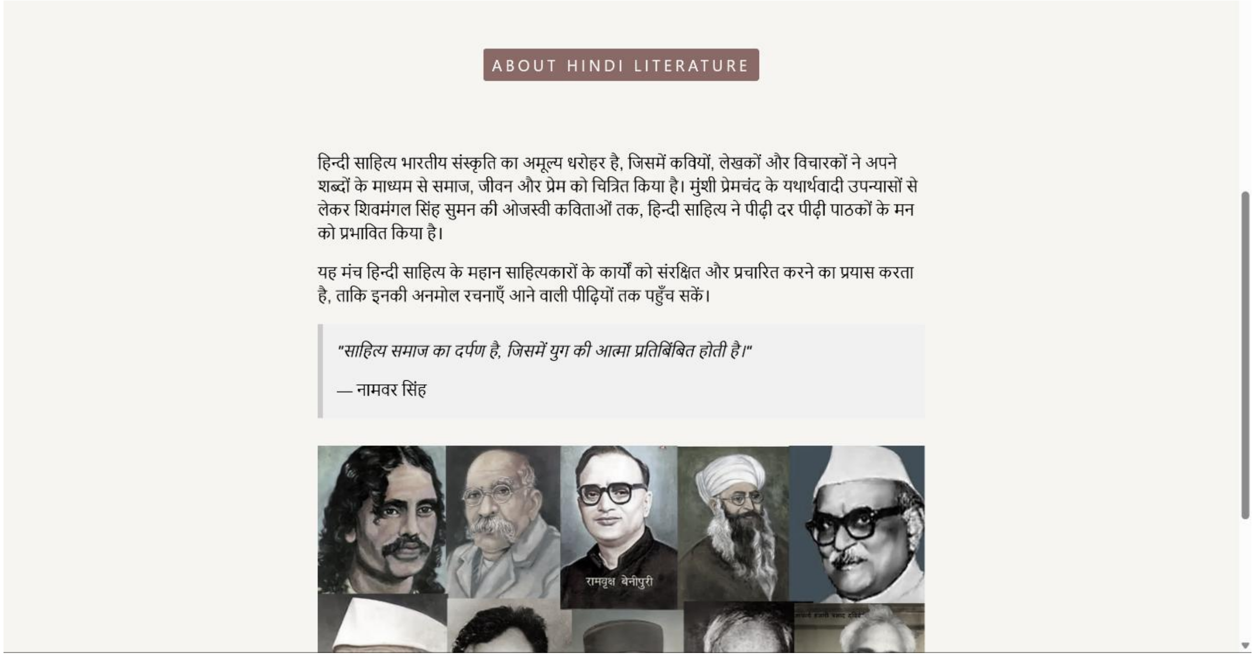
@@Authentication

We created a auth service which fetches data from userservice through the feign client
then authicate it
we use @Enablewebsecurity
because with the help of that we can write our custom security filterchain
as we know our data goes through many filters
so here we disable csrf and requestmatcher
and in frontend
we create a auth service and auth guard
auth guard make mandatory authrtication like we made for user page it redirects automatically to login page,and auth service communicates with backend with @CORS

My project description through images

THIS IS MY HOME PAGE





ABOUT HINDI LITERATURE

हिन्दी साहित्य भारतीय संस्कृति का अमूल्य धरोहर है, जिसमें कवियों, लेखकों और विचारकों ने अपने शब्दों के माध्यम से समाज, जीवन और प्रेम को चित्रित किया है। मुंशी प्रेमचंद के यथार्थवादी उपन्यासों से लेकर शिवमंगल सिंह सुमन की ओजस्वी कविताओं तक, हिन्दी साहित्य ने पीढ़ी दर पीढ़ी पाठकों के मन को प्रभावित किया है।

यह मंच हिन्दी साहित्य के महान साहित्यकारों के कार्यों को संरक्षित और प्रचारित करने का प्रयास करता है, ताकि इनकी अनमोल रचनाएँ आने वाली पीढ़ियों तक पहुँच सकें।

> *"साहित्य समाज का दर्पण है, जिसमें युग की आत्मा प्रतिबिंबित होती है।"*
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> — नामवर सिंह

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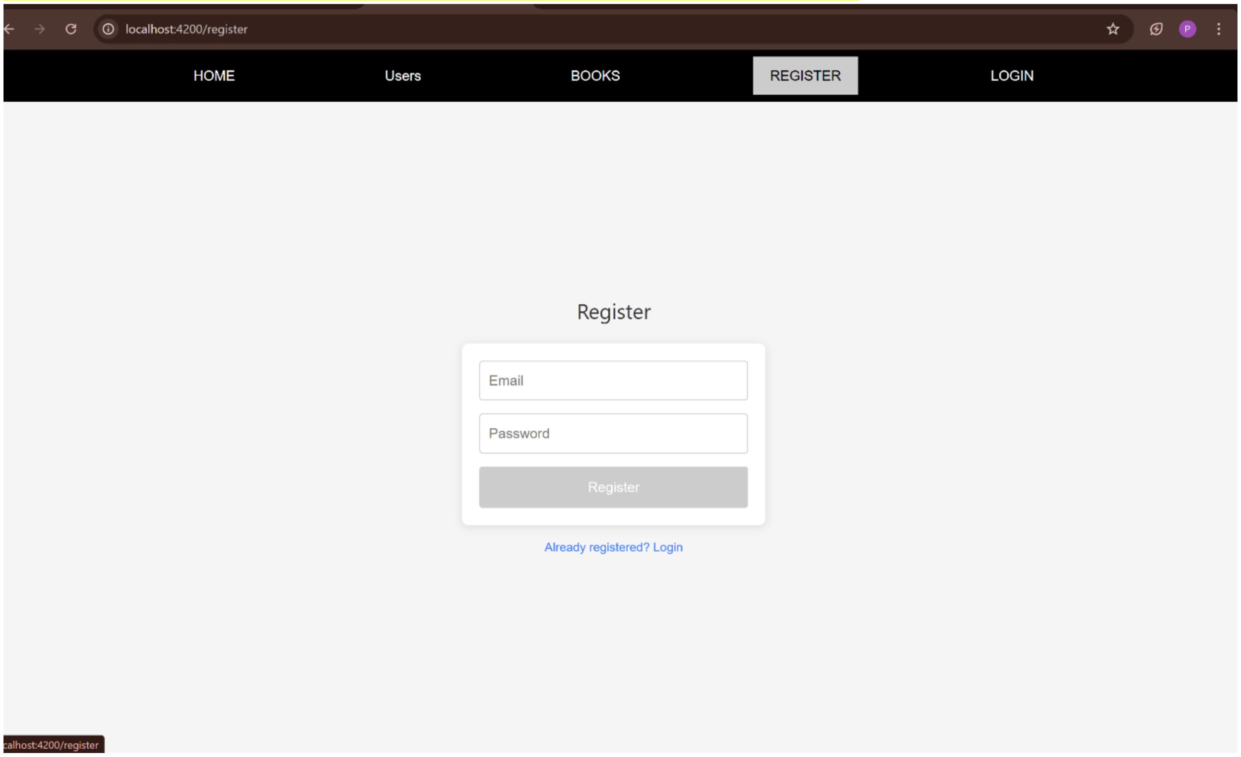
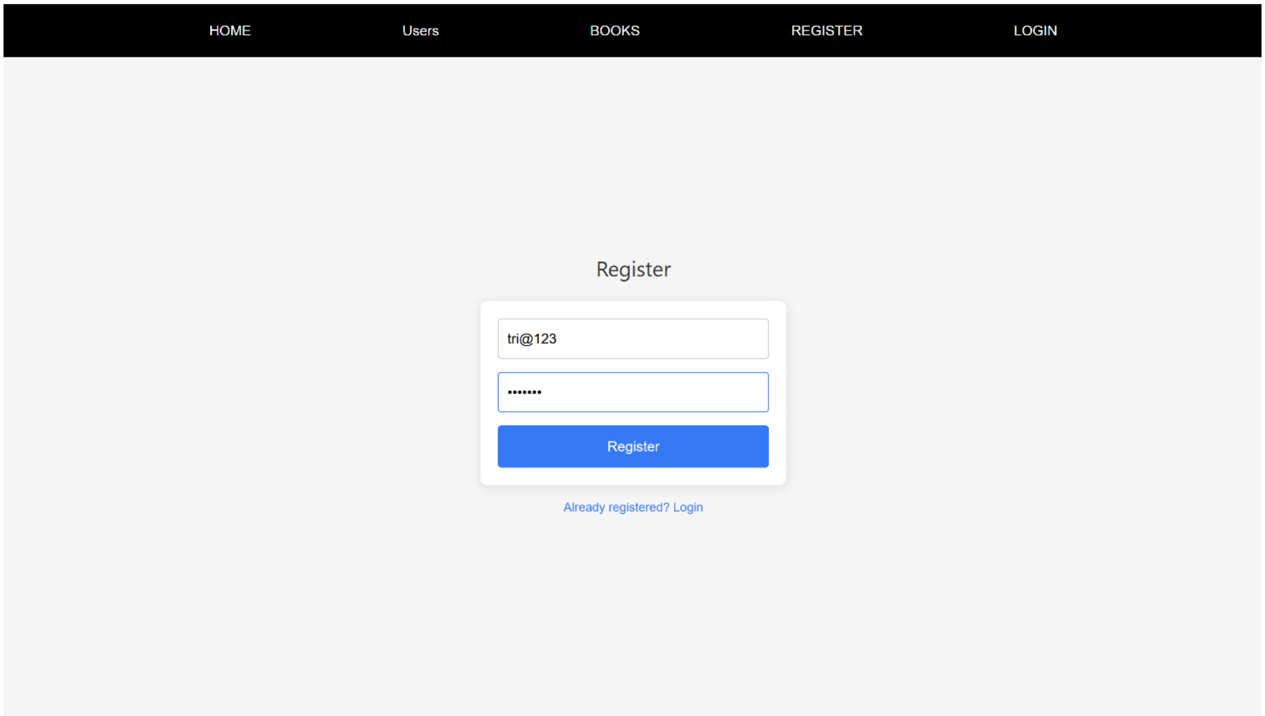
हमारा उद्देश्य: हिन्दी साहित्य को डिजिटल रूप में संरक्षित करना और इसकी महिमा को उजागर करना।

संपर्क करें:

REGISTERING A USER

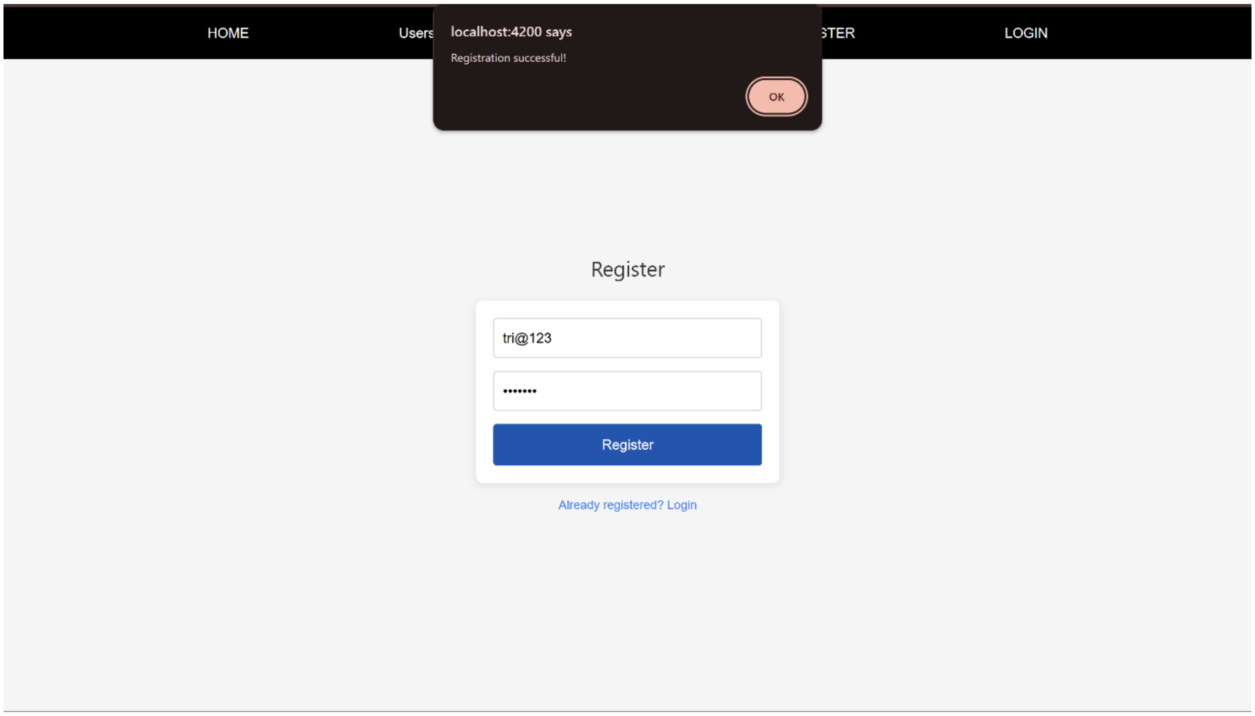




tri@123

•••••••

USER REGISTERED SUCCESFULLY



localhost:4200 says

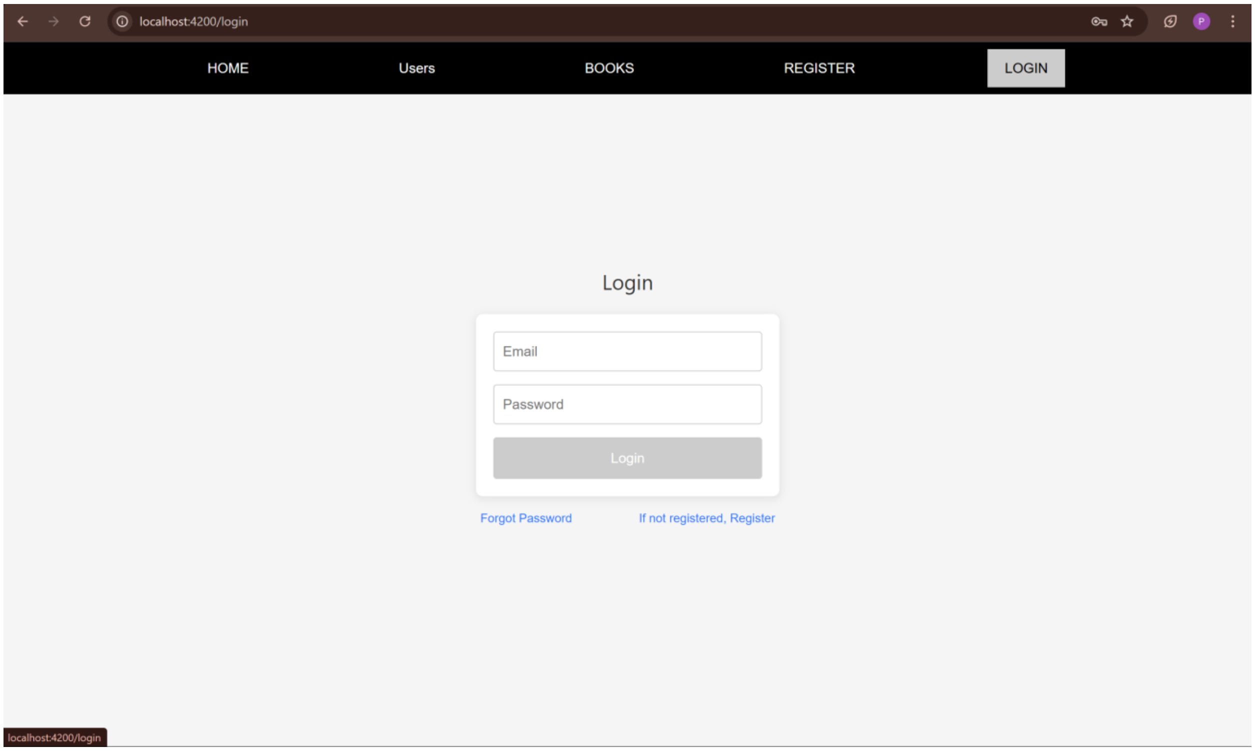
Registration successful!

Register

tri@123

•••••••

LOGIN PAGE



localhost:4200/login

HOME Users BOOKS REGISTER LOGIN

Login

Email

Password

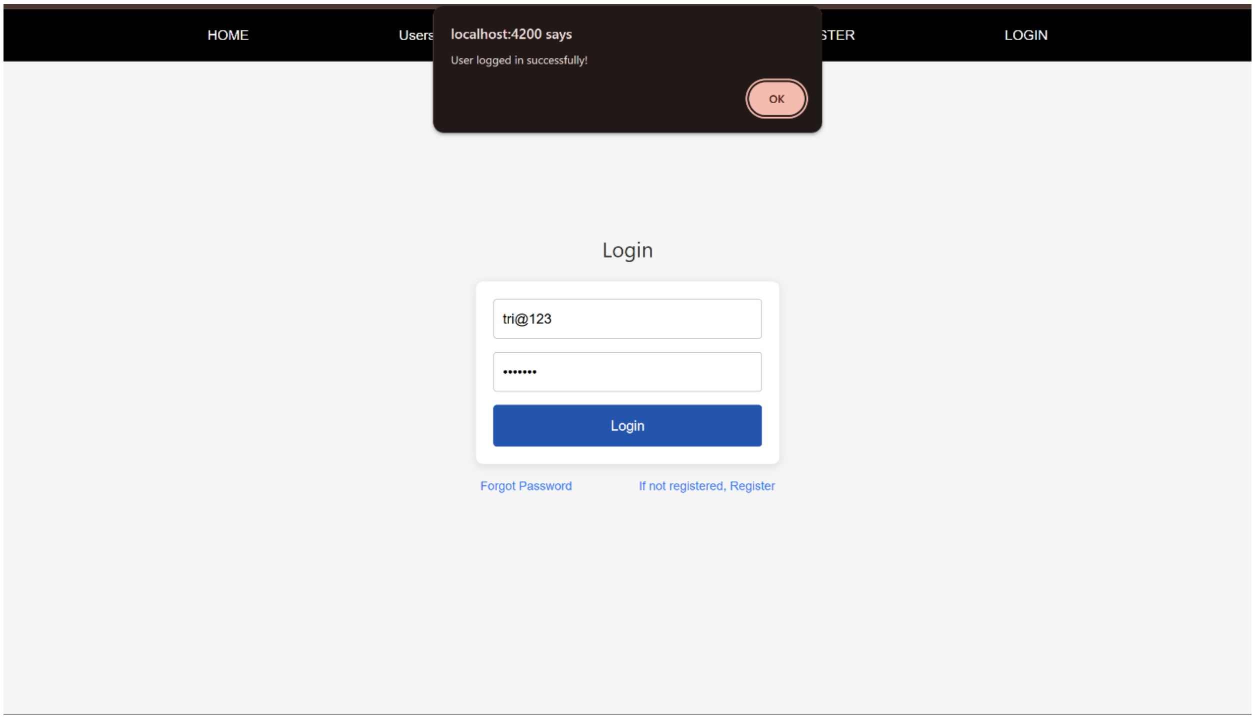
Login

Forgot Password

If not registered, Register

localhost:4200/login

ENTERED CORRECT USER CREDENTIALS



HOME Users ...STER LOGIN

localhost:4200 says

User logged in successfully!

OK

Login

tri@123

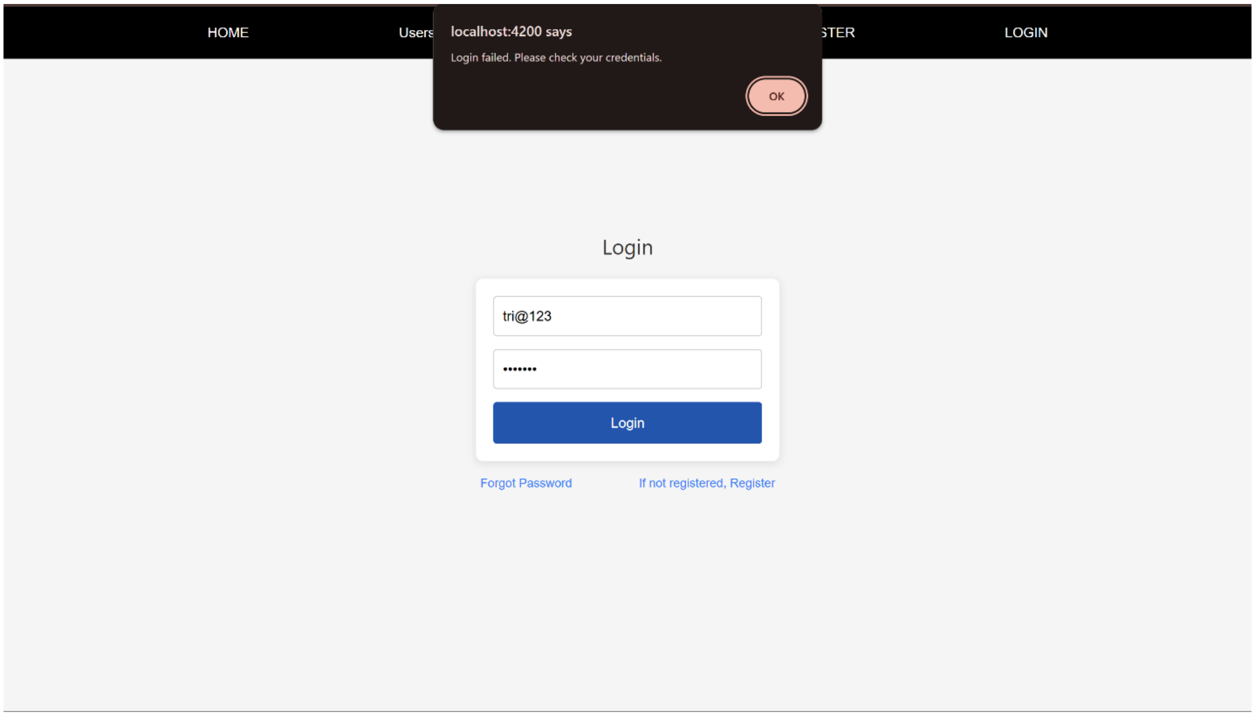
•••••••

Login

Forgot Password

If not registered, Register

ENTER WRONG USER DETAILS

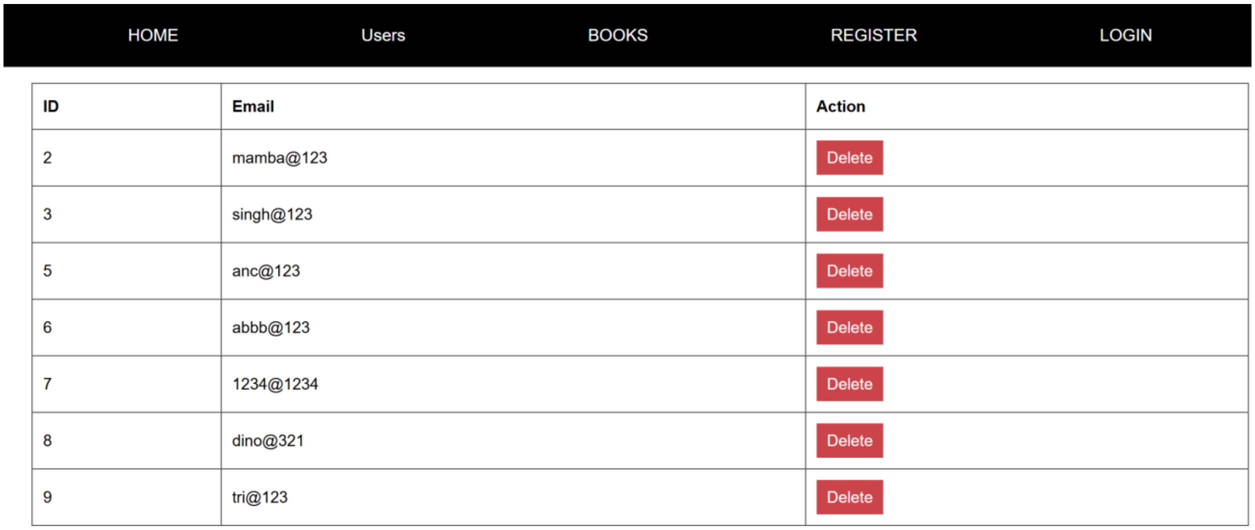


localhost:4200 says

Login failed. Please check your credentials.

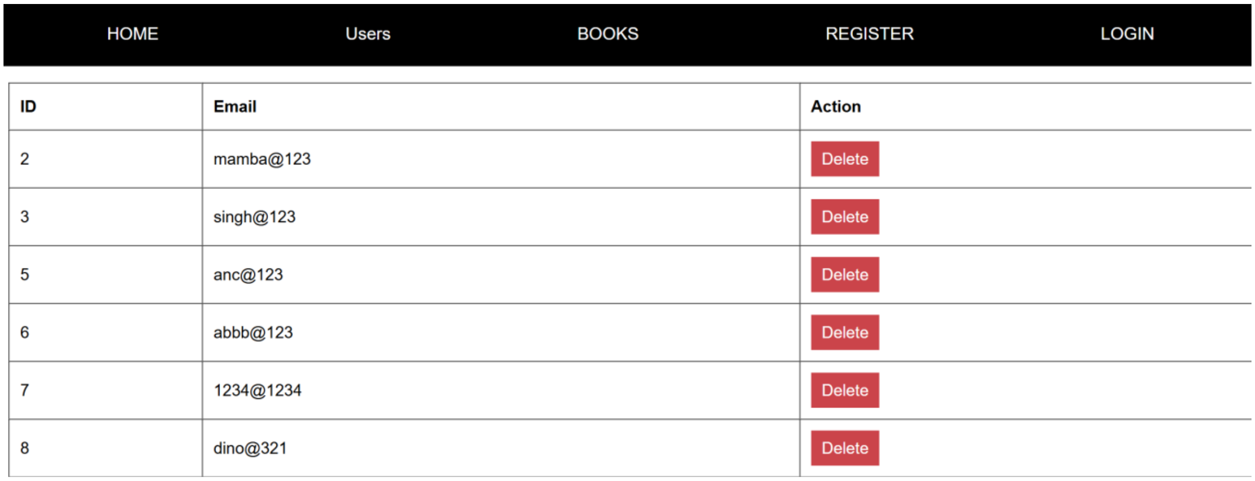
USERS PAGE

All users



ID	Email	Action
2	mamba@123	Delete
3	singh@123	Delete
5	anc@123	Delete
6	abbb@123	Delete
7	1234@1234	Delete
8	dino@321	Delete
9	tri@123	Delete

We want to delete user 9 tri@123,so we will click delete and it will be deleted



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