A CAPSTONE PROJECT REPORT

ON

DOCONNECT

Submitted in partial fulfillment of the requirements for the training of

Java Full Stack Developer by WIPRO
By

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August 2022

PROBLEM STATEMENT

Do Connect is a popular Q and A form in which technical questions was asked and answered. There are 2 users on the application:

1. User
2. Admin

User Stories:

1. As a user I must be able to login, and also Logout and to Register into aapplication.
2. As a user I must be ask any question under any given topic.
3. As a user I should search the question on any string written in the search box.
4. As a user I may be able to Answer any question that is asked.
5. As a user I should be able to answer more than one question at a time.
6. As a user I should be flexible to chat with other users.
7. As a user I should be able to upload images for reference purpose.

Admin Stories :

1. As an Admin I am able to logout, login and register.
2. As an Admin I should get mail as soon as any new Question is asked or any Answers are given.
3. As an Admin I should be able to delete inappropriate Questions or Answer

ABSTRACT

We all have previously came across about different webpages like StackoverFlow , Quora and Answer Bag etc. In the same way DoConnect is a popular Q and A form in which questions can be asked and answered. One can be able to Login, Logout and Register into the application. One can be able to ask any question under any topic. One can be able to search the question on any string written in search box. One can be able to Answer any question asked by any other user. One can be able to answer more than one question and more than one time. One can be able to chat with other users using chat option. Images can be uploaded for reference while asking any question.

ACKNOWLEDGEMENTS

We are profoundly grateful to **MR. JAVEED MOHAMMED HUSNUDDIN** sir for his expert guidance and encouragement throughout the project. We would like to extend our sincere thanks to our institution for providing us with this opportunity. We are highly indebted to our guide for his guidance and constant supervision as well as for providing necessary information regarding the project and also for his support in project completion.

We are very thankful **to MS.ANISHA NAIR** , Project Manager , for her support, guidance, advice which were the constant source of inspiration for the completion of this project.

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INTRODUCTION

1.1 INTRODUCTION:

We all have previously came across about different webpages like StackoverFlow, Quora and Answer Bag etc.In the same way DoConnect is a popular Q and A form in which questions can be asked and answered. One can be able to Login, Logout and Register into the application. One can be able to ask any question under any topic. One can be able to search the question on any string written in search box. One can be able to Answer any question asked by any other user. One can be able to answer more than one question and more than one time. One can be able to chat with other users using chat option. Images can be uploaded for reference while asking any question.

1.2 OVERALL DESCRIPTION:

1.2.1 Description:

- Any member can register and view available questions.
- Only registered member can open the websites. There are two roles available: User and Admin.
- User can question and answer.

1.2.2 Using the code:

1. Attach the database in your "SQL Server Management Studio Express".
2. To Run application using the Microsoft Visual Studio as a website.
3. To Locate database.

1.2.3 Web Pages details:

- Home Page
- Login Page
- Sign Up Page

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 SOFTWARE REQUIREMENTS:

Technologies:

- Angular
- Spring Boot

Languages:

- Type Script
- Java
- SQL Queries

IDE:

- Spring Tool Suite 4
- Visual Studio code
- My SQL

2.2 HARDWARE REQUIREMENTS:

Operating System:

- Windows 7/8/10/11
- Linux distros
- MacOS X or later.

Processor:

- Intel or AMD dual core x86 processor.

Ram:

- 2 GB or above.

Hard disk:

- 500 MB of free disk space or more.

CHAPTER 3
ANGULAR ARCHITECTURE

Angular is a platform or framework to build client-based applications in HTML and TypeScript. It's written in TypeScript. It implements core and optional functionality as a group of TypeScript libraries that are imported into applications.

There are main eight blocks of Angular:

- Module
- Component
- Metadata
- Template
- Data Binding
- Service
- Directive
- Dependency Injection

Module:

Angular apps are modular and Angular has its own way of modularity system referred to as Angular modules or Ng-Modules. Every Angular app will contains an Angular module class, and the root module, conventionally named as App-Module.

Ng-Module is function which take a single metadata object whose properties describes the module.

The most important properties of Ng-Module are as follows:

• declarations - the view classes that belong to the present module. Angular has 3 different typed view classes namely: components, directives, and therefore the pipes.

• exports - the subset of declarations that ought to be visible and usable in the component templates of other modules..

- imports – these are the other modules whose exported classes are much needed by the component templates declared in this module.

- providers – these are creators of the services .

Metadata:

Metadata is employed decorate a class so that it can configure the expected behavior of the class. Annotations are part for metadata. Annotation is an array and also an example having both the @Component @Routes decorator.

Service:

Service is a function which satisfy our application needs.

Examples include:

- logging service
- data service
- message bus
- tax calculator
- application configuration

Directive:

Directives are classes that add new behavior or modify the prevailing behavior to the elements in the template. Basically directives are there to manipulate the DOM, for example adding/removing the element from DOM or changing the appearance of the DOM elements.

Dependency Injection:

Dependency injection, or DI, a design pattern in which a class requests dependencies from external sources rather than creating them.

CHAPTER 4

SPRINGBOOT ARCHITECTURE

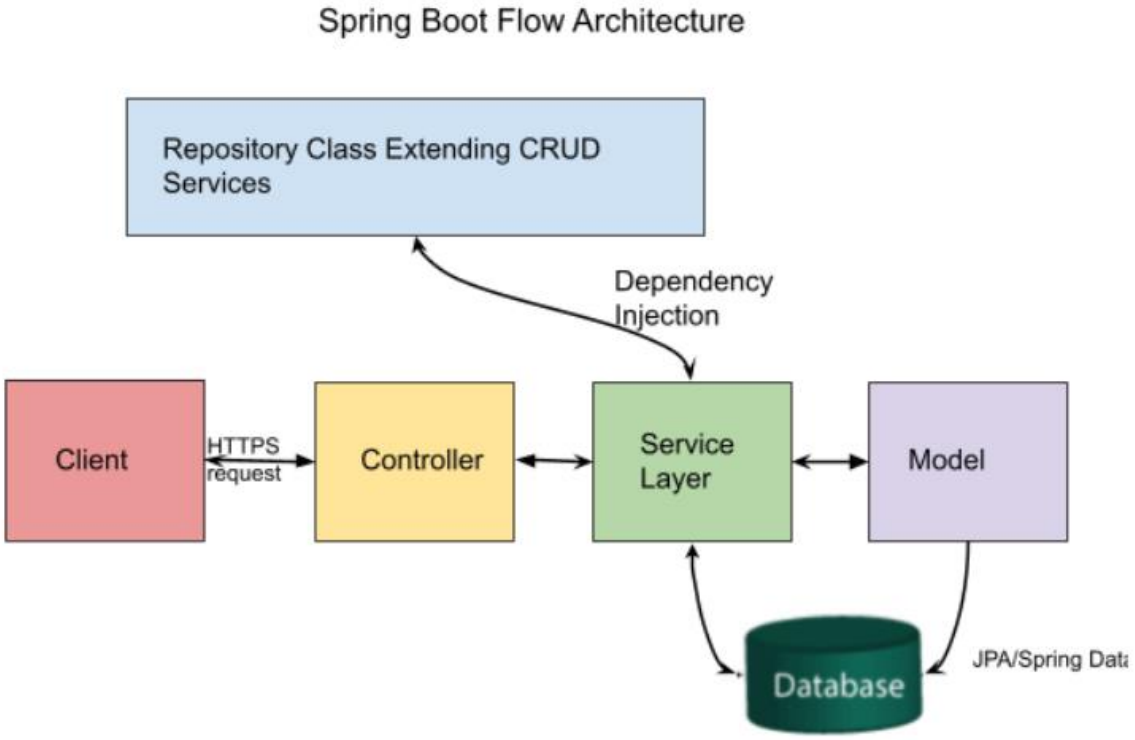

FIGURE 1: SPRING BOOT ARCHITECTURE

The spring boot contains following four layers:

- **Presentation Layer**
- **Business Layer**
- **Persistence Layer**
- **Database Layer**

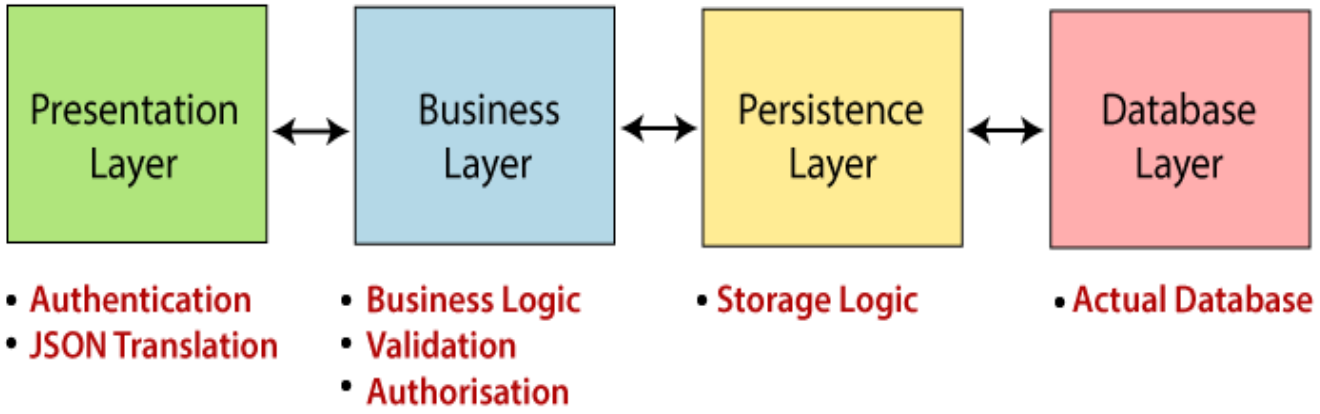

FIGURE 2 :LAYERS

❖ Presentation Layer:

- It is the uppermost layer of the spring boot architecture. It consists of the many Views. i.e., the front-end a part of application. It take-care on HTTP requests and also performs the authentication.

❖ Business Layer:

- It contains business logic. It's responsible for the validation part and also for authorization.

❖ Persistence Layer:

- It translates business objects to database rows.

❖ Database:

- The database layer contains all the databases like MySql, MongoDB, etc.. It'is responsible for performing the CRUD operations.

CHAPTER 5

MICROSERVICE ARCHITECTURE

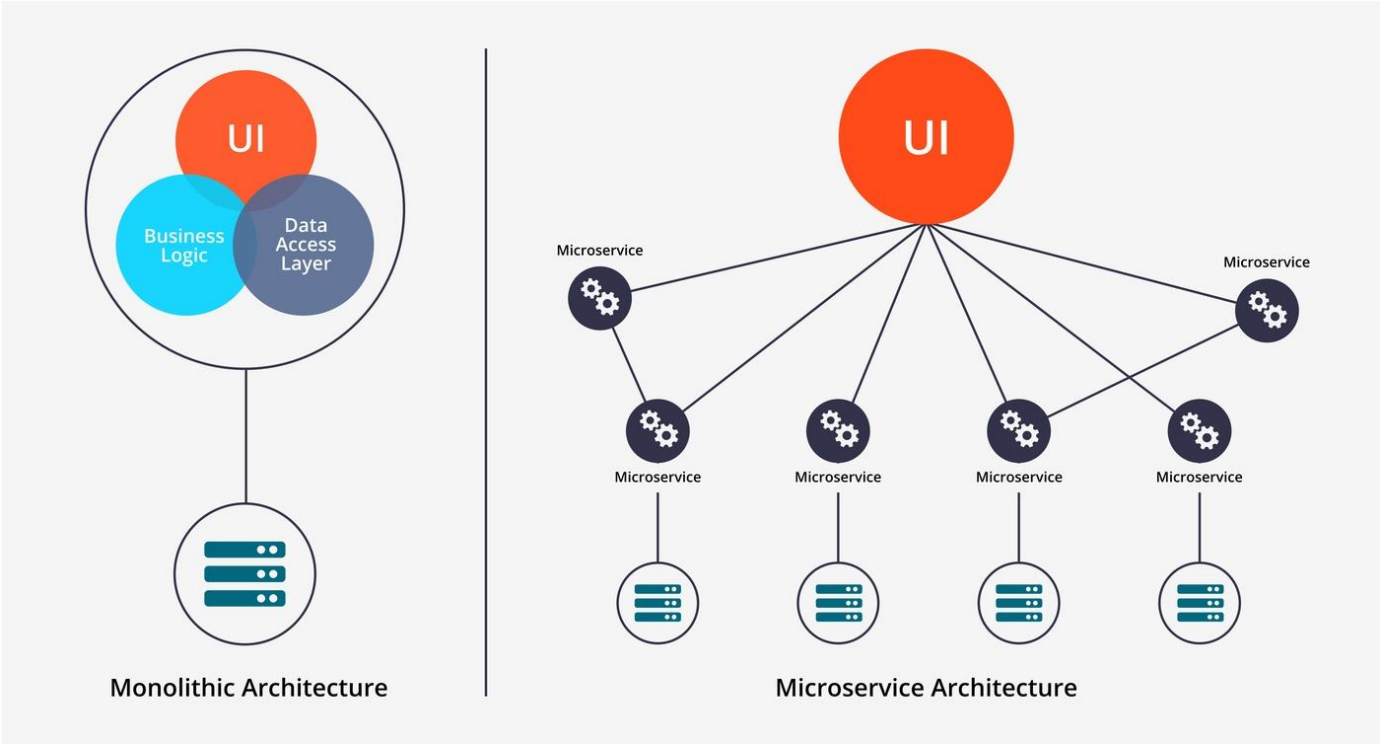

FIGURE3: MICROSERVICE ARCHITECTURE

- Typically, micro services are used to speed up application development.
- Micro services architectures built using Java are common, especially Spring Boot ones.

CHAPTER 6

DATABASE ARCHITECTURE

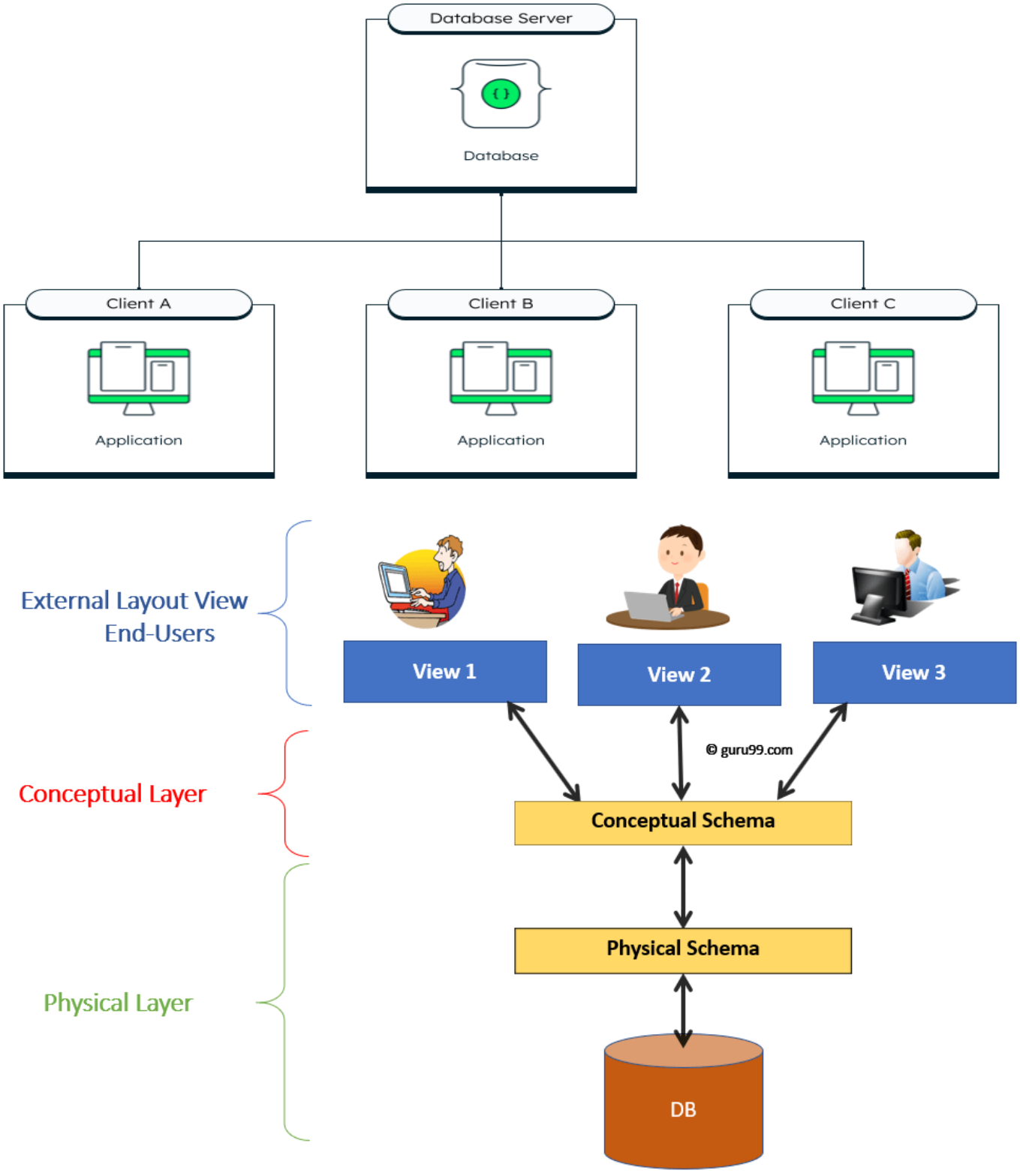

FIGURE 4: ARCHITECTURE OF DATABASE SYSTEM

Entities within the Database include:

- Admin
- User
- Image Model
- Question
- Answer

CHAPTER 7
TOTAL PROJECT OVERVIEW

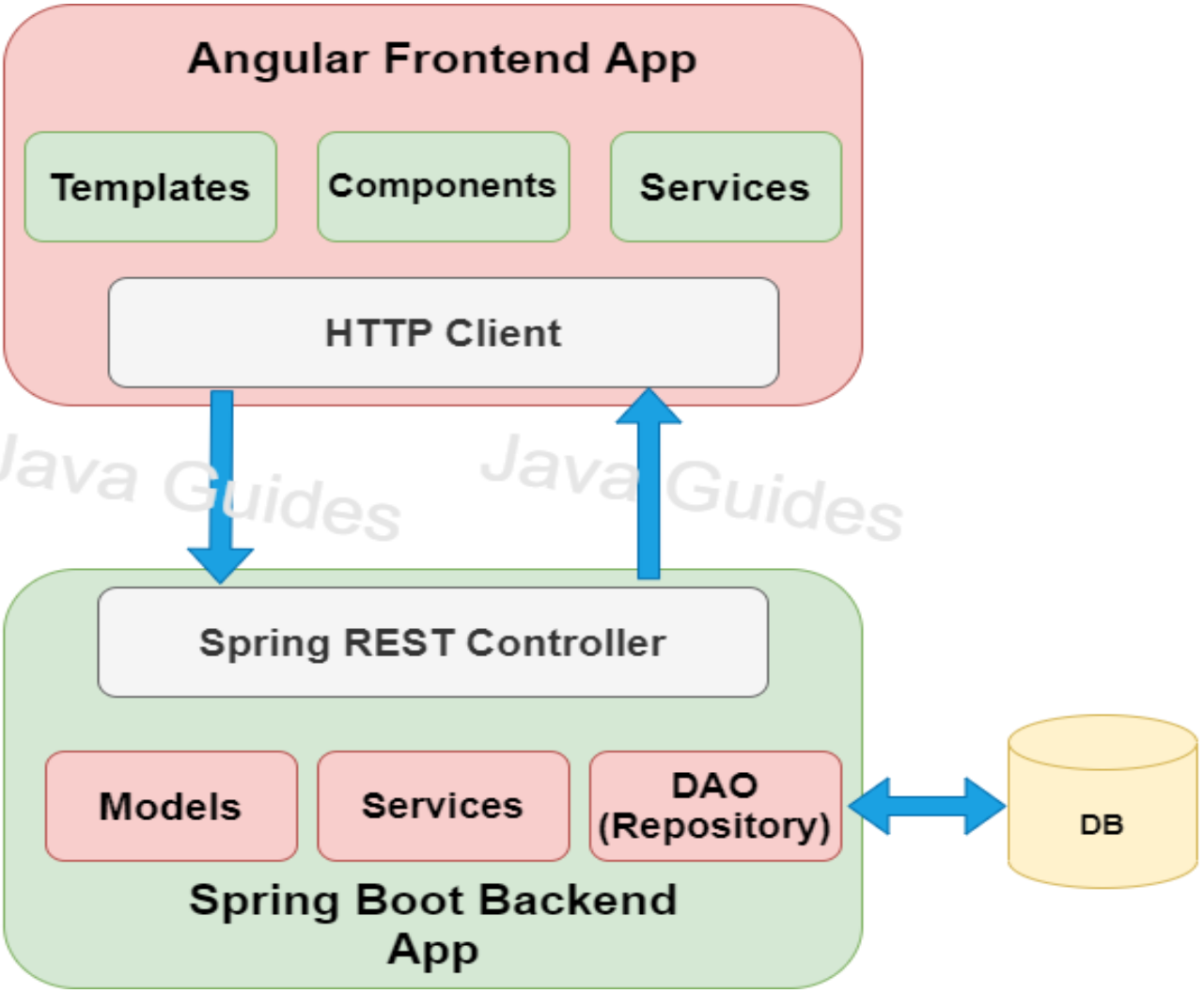

FIGURE 5: PROJECT OVERVIEW

Full-stack-web-development entails the creation of both the frontend and backend of an internet site or application. Frontend and backend developers are usually necessary for every web development project. However, a full stack developer performs both.

7.1 FUNCTIONALITY OF USER

- As user I should be logged-in, Logout and Register.
- As a user I should be ready to ask any questions on any topic.
- As a user I should be ready to search the question written in the given search box.
- As a user I should Answer any question.
- As a user I should be ready to answer more than one questions at a time.
- As a user I should be ready to chat with the others.
- As a user I should be ready to upload images to refer.

7.2 FUNCTIONALITY OF ADMIN

- As an Admin I should be ready to login, Logout and Register into the application.
- As an Admin I should be ready to perform CRUD on Users.
- As an Admin I should be ready to get all the users.

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CHAPTER 8
PROJECT FLOW

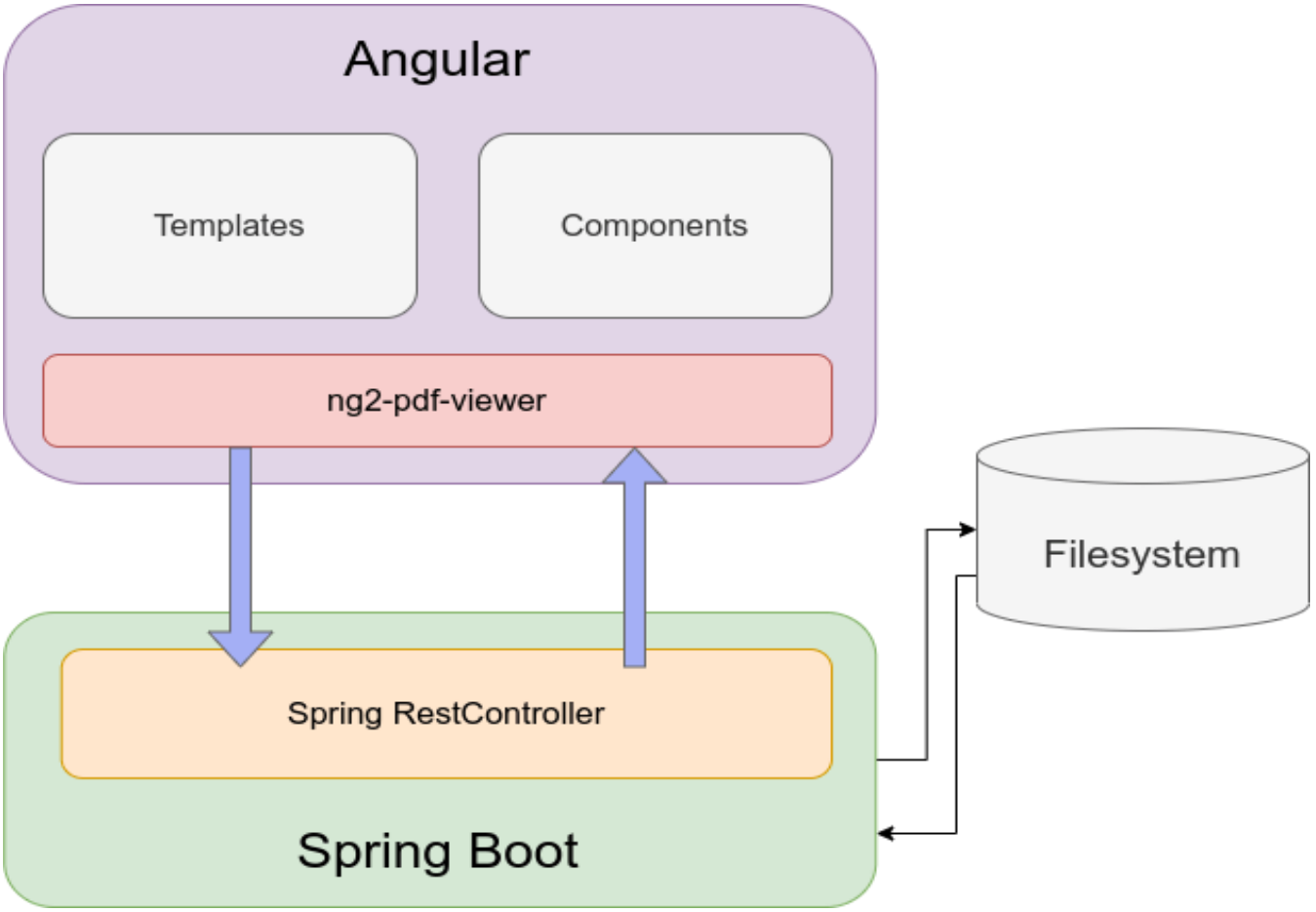

FIGURE 6 :PROJECT FLOW

CHAPTER 9

RESULTS

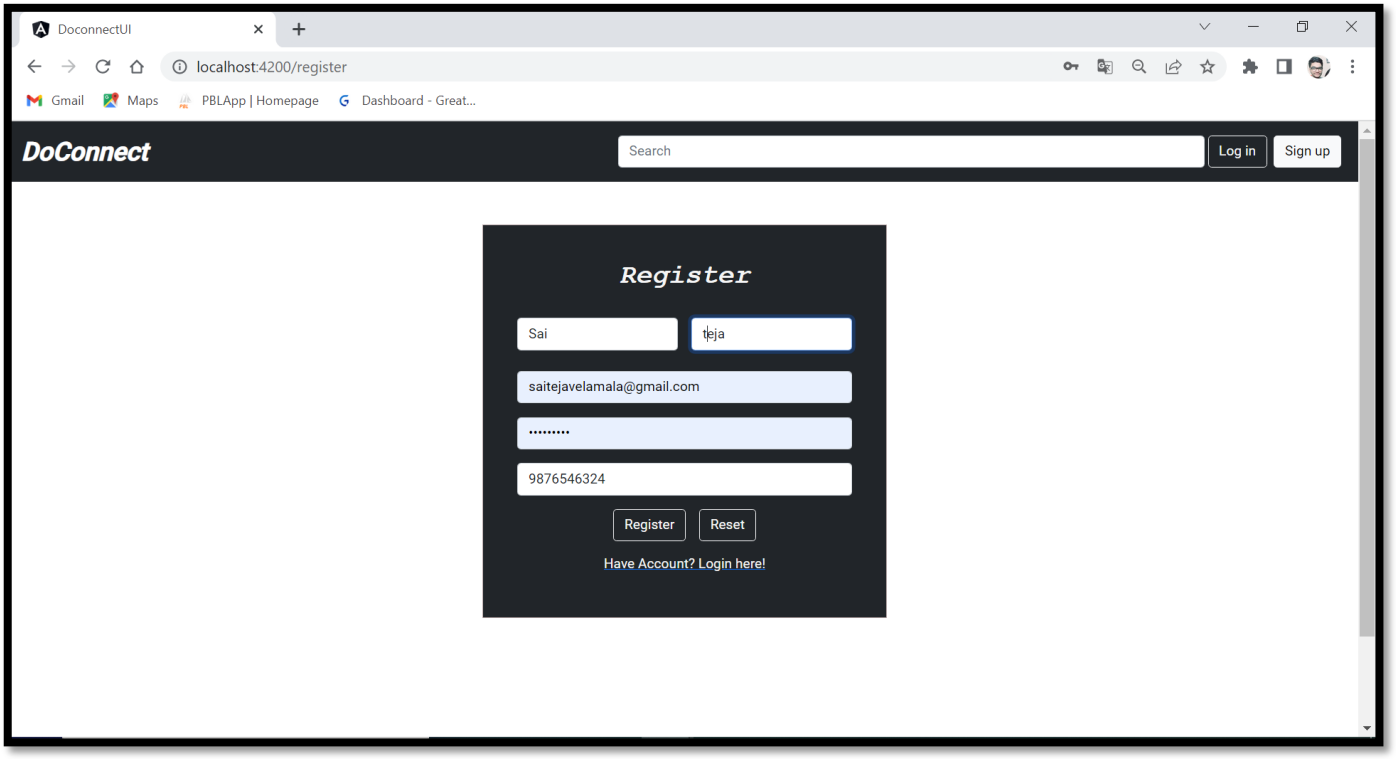

Figure 8: USER REGISTRATION

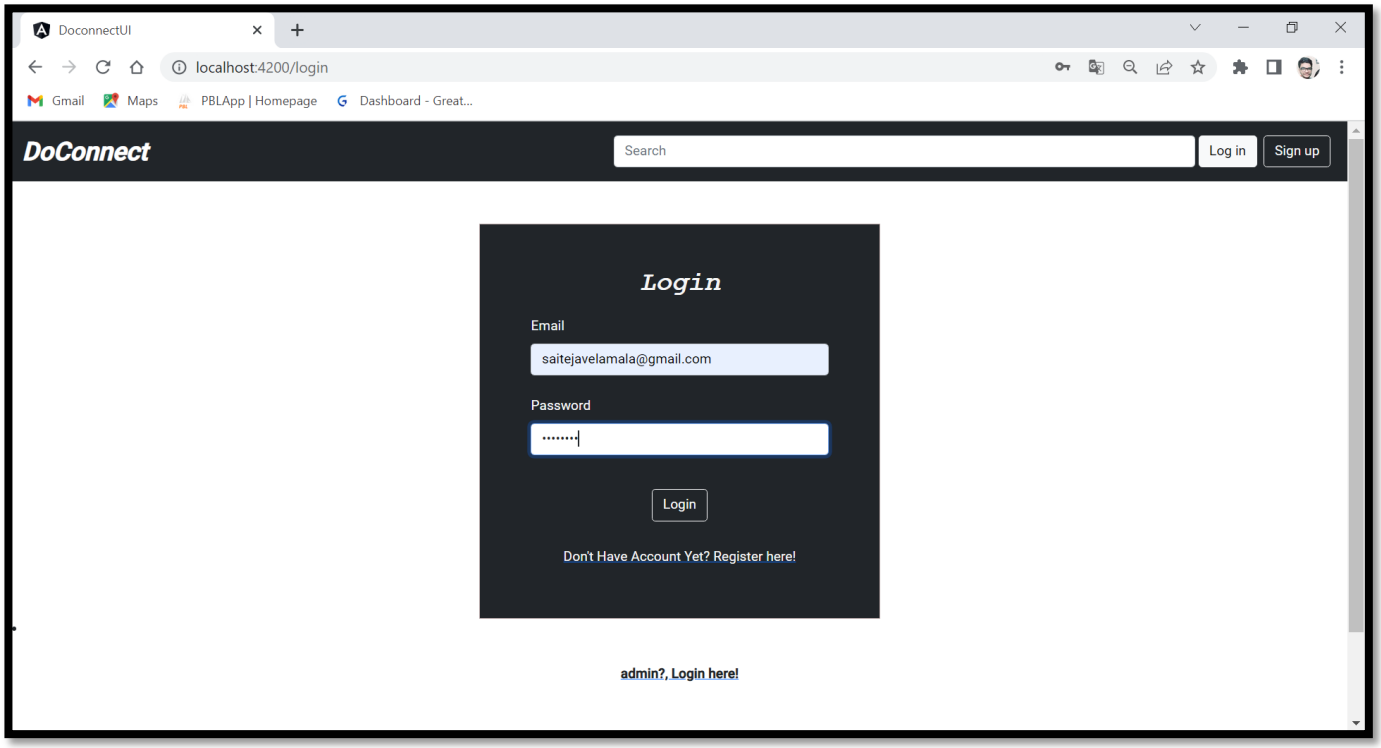

FIGURE 9 : USER LOGIN

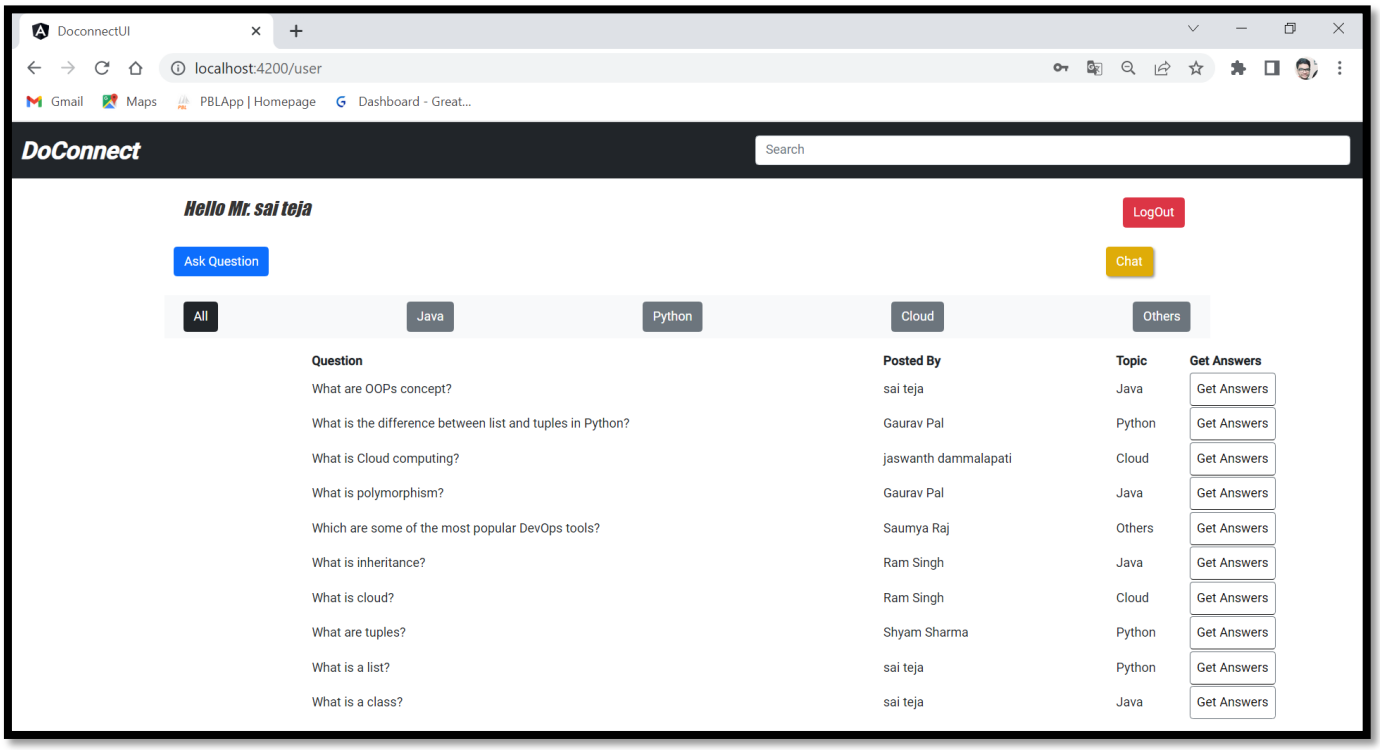

FIGURE 10 : USER DASHBOARD

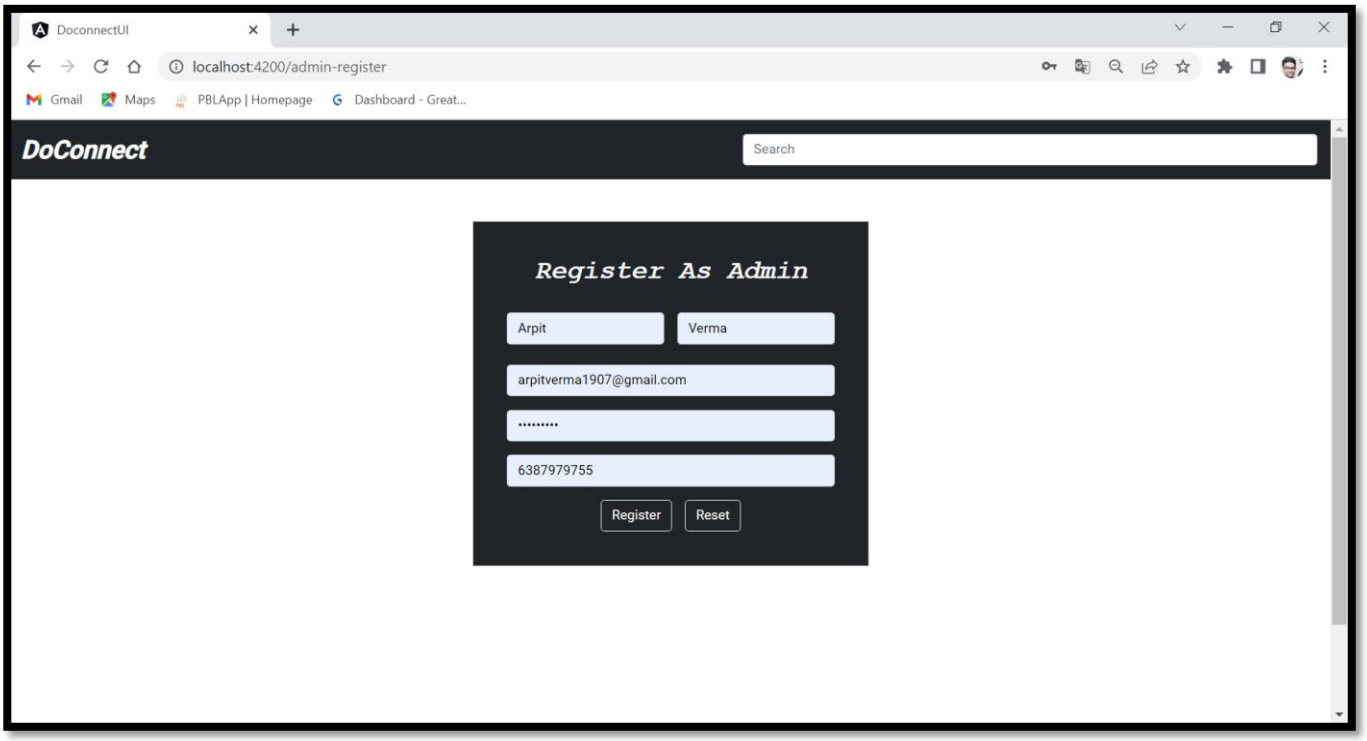

FIGURE 11: ADMIN REGISTRATION

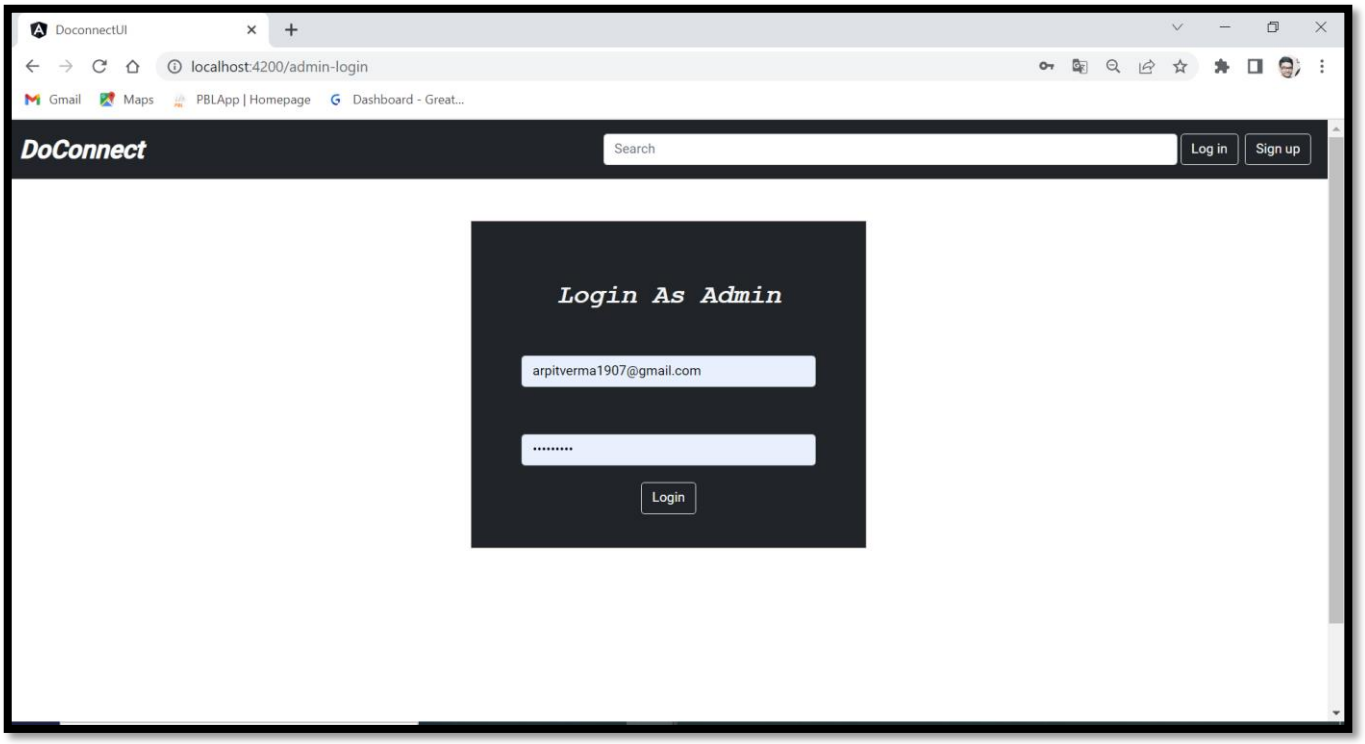

FIGURE 12: ADMIN LOGIN

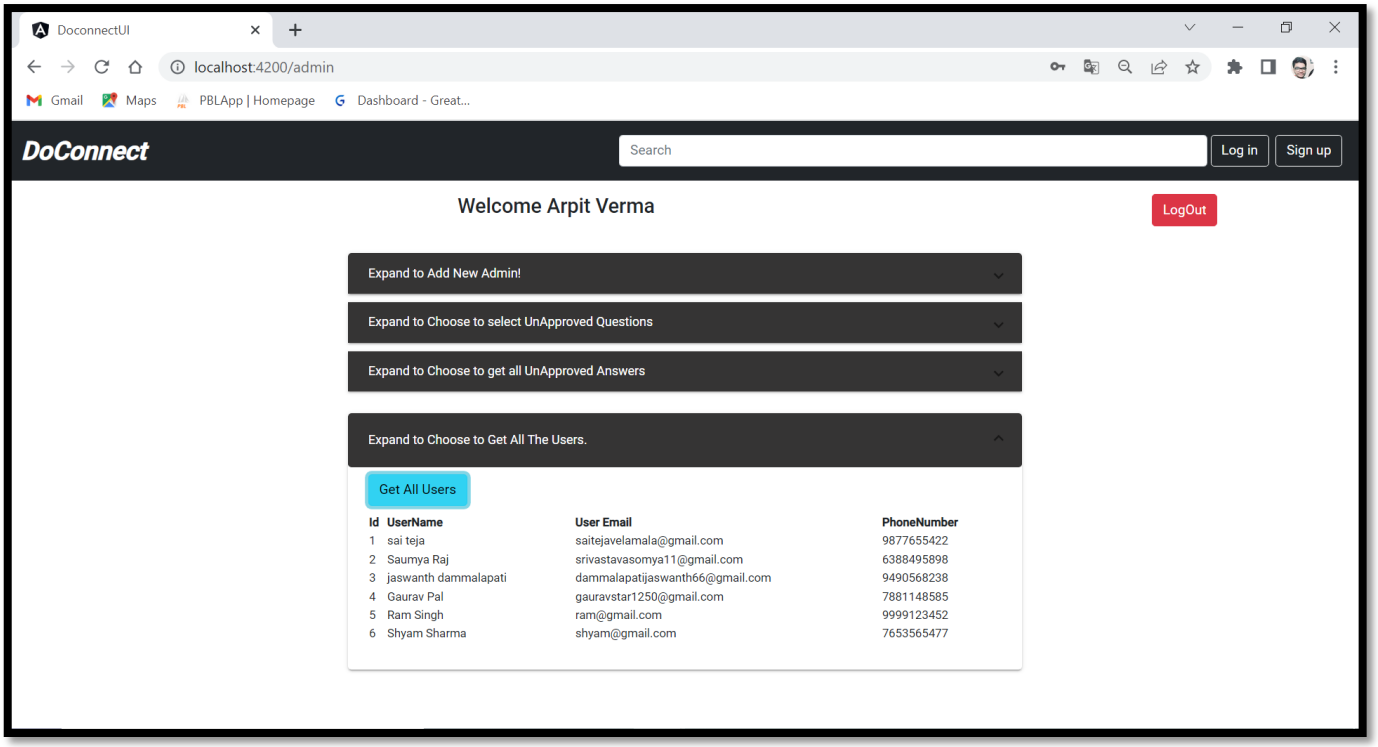

FIGURE 13 : ADMIN DASHBOARD

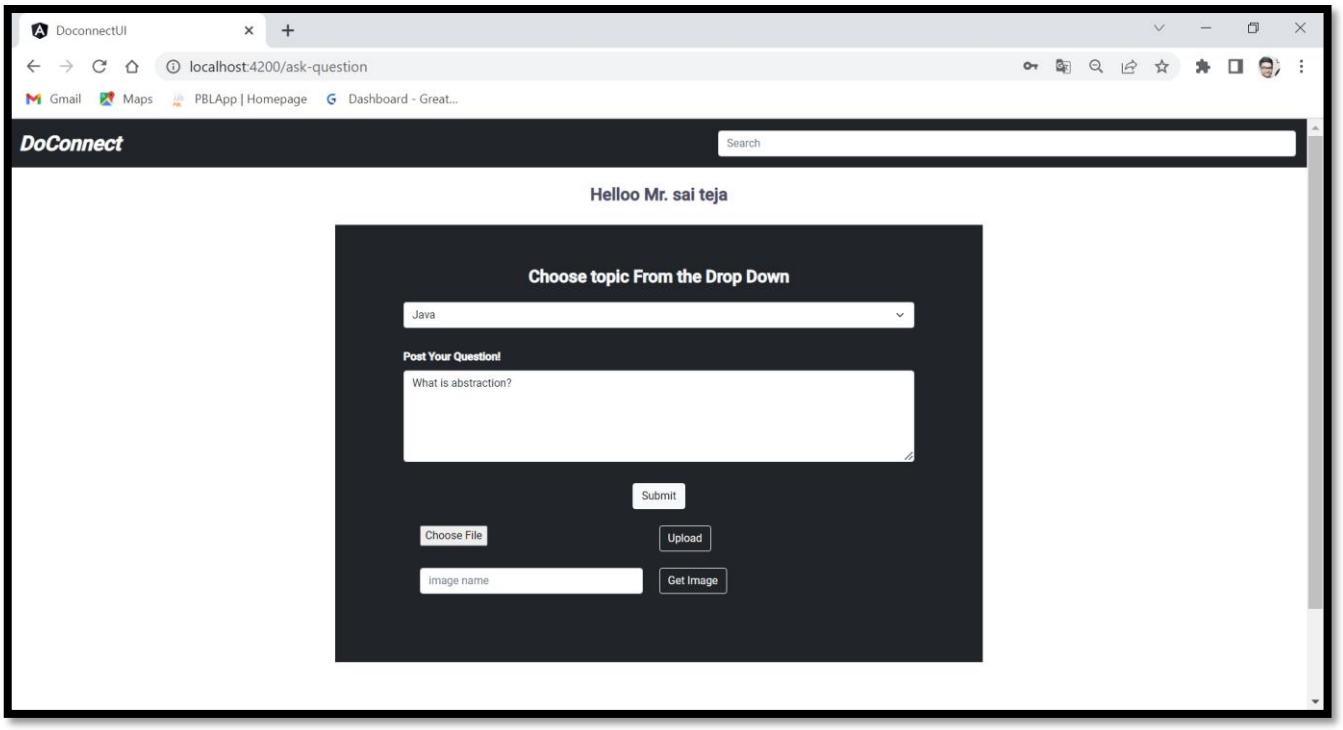

FIGURE 13: QUESTION WINDOW

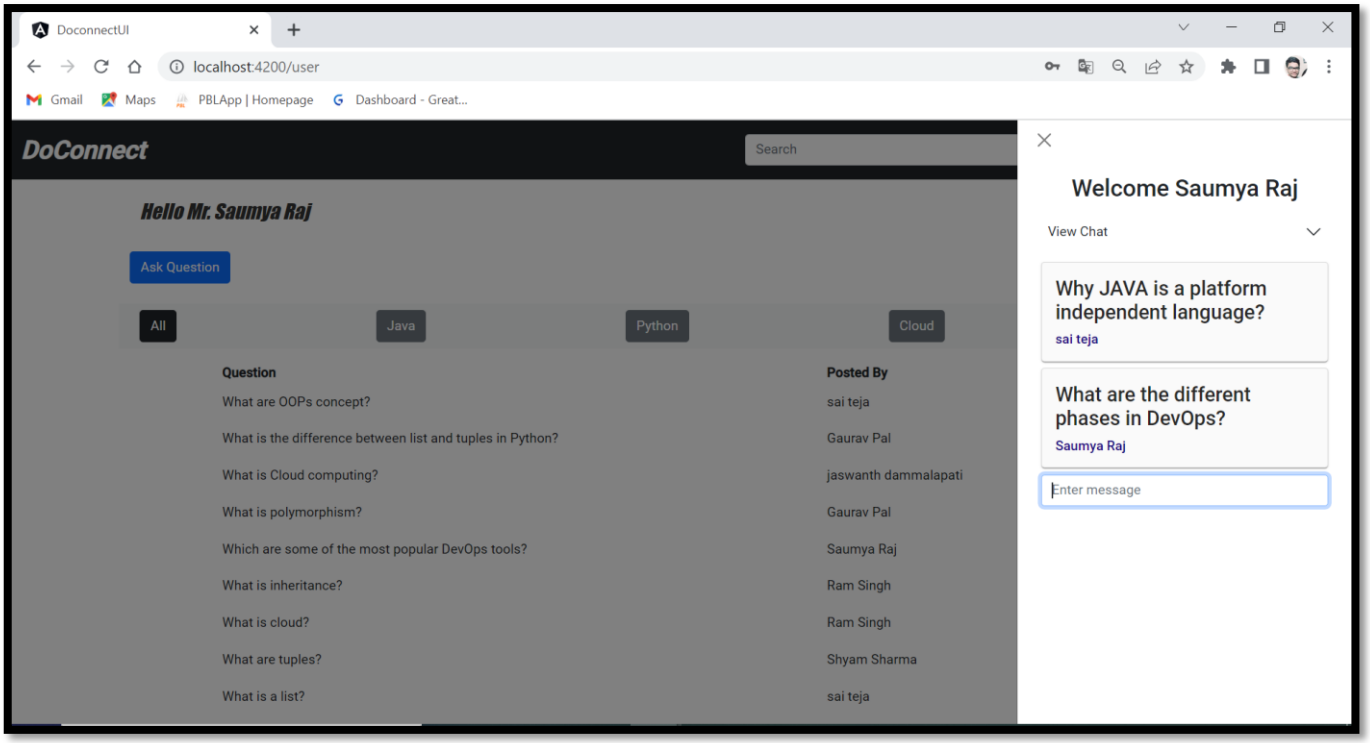

Figure 14: CHAT SERVICE

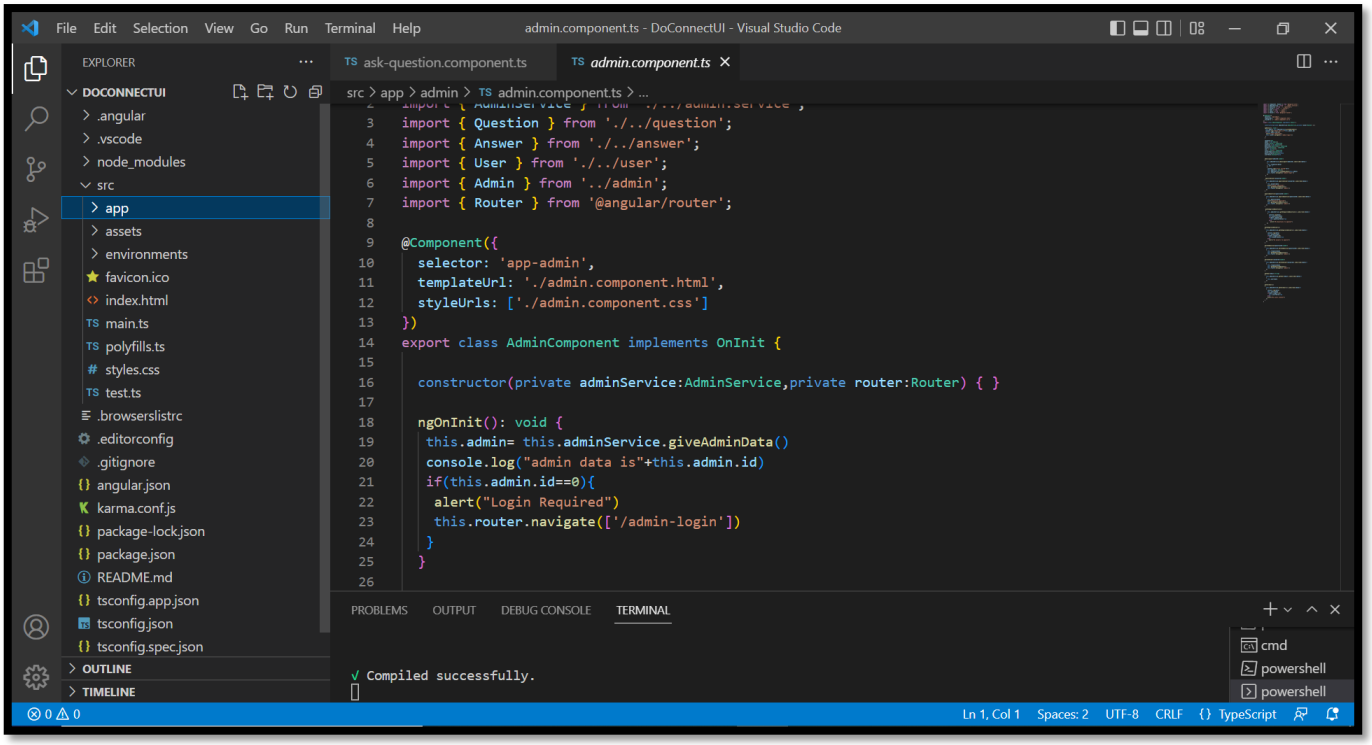

FIGURE 15: FRONTEND STRUCTURE

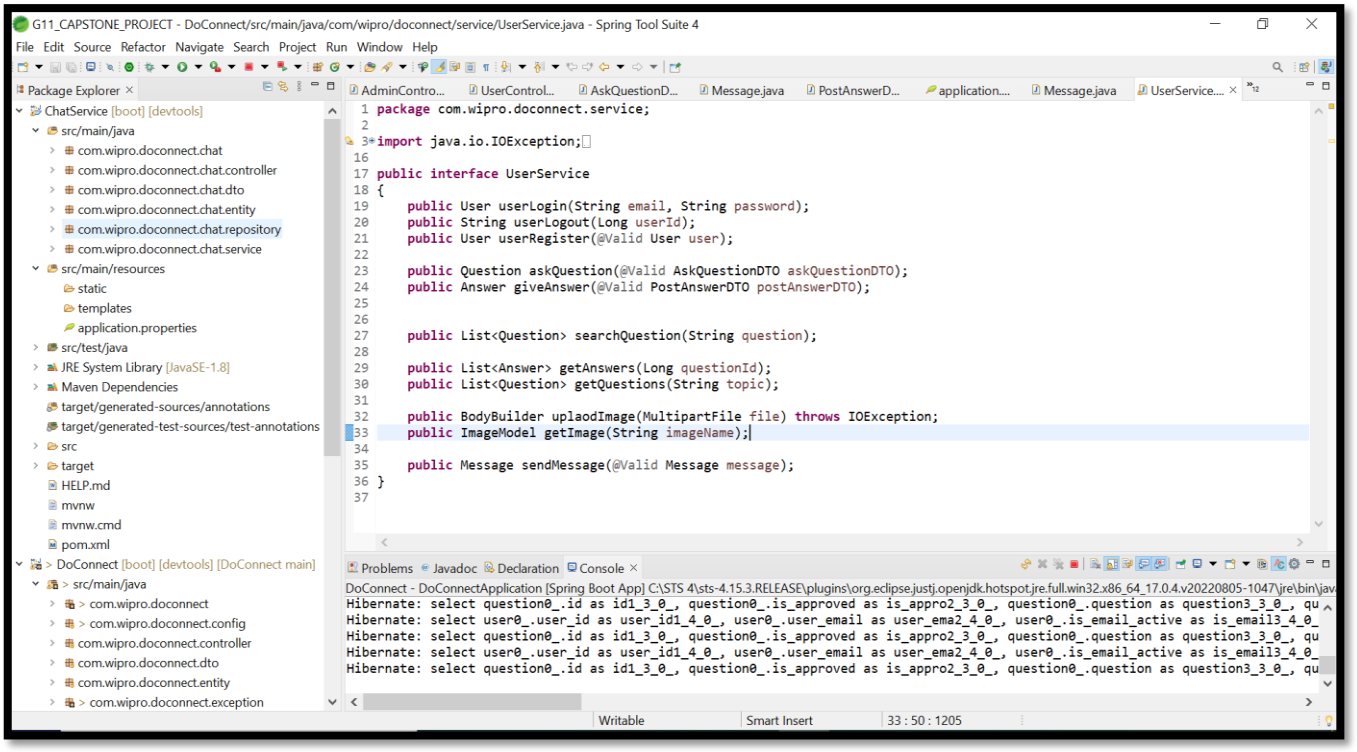

FIGURE 16: BACKEND STRUCTURE

CHAPTER 10

CONCLUSION

Hence, we conclude that, we have successfully created and developed a website DoConnect using the database structure and entity frame work, with all the requirements mentioned in the case study .And we have successfully deployed our project in Angular and spring boot.