CAPSTONE PROJECT REPORT ON

DoConnect

TEAM MEMBERS

Bhanu Sri Kakarlapudi

Srilakshmi Panga

Tanguturu Venkata
Sivanagi Reddy

Sarumathi Rajaraman

K G S Varun Teja

Supervised By: -

Ms. Anitha Georgin

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We would like to express our gratitude towards our parents & our friends for their kind co-operation and encouragement which helped us a lot in completing this project.

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Team members

Bhanu Sri Kakarlapudi

Srilakshmi Panga

Tanguturu Venkata Sivanagi Reddy

Sarumathi Rajaraman

K G S Varun Teja

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Abstract

Q&A websites are used by developers to share their knowledge and skills. Do Connect is a well-known question-and-answer platform where people debate various issues and exchange information. It accepts queries that are narrowly focused on a particular issue. The site's users often label as "closed" questions that are of a more general character or those that invite responses that are fundamentally subjective. Do Connect is meant to serve as a forum for more general inquiries, such as those regarding software development in general. Closing queries is a key way that Yahoo! Answers sets itself apart from other Q&A websites and is a measure to guard against poor quality inquiries. It was developed to be a more inclusive replacement for older questions and responses on platforms like Experts-Exchange. The website serves as a platform for users to ask and answer questions, and, through membership by simply Signup and active participationanswers up or down similar to Reddit and edit questions and answers in a fashion similar to a wiki.

Introduction:

Do Connect is a website where people may ask and answer questions. It offers questions and answers on many different topics like computer programming-related, etc. Let us take programming field as an example. In contrast to prior question-and-answer websites like Experts-Exchange information on the Unknown Things, it was designed to be a more accessible option. Stack Overflow resembles a cross between Wikipedia and programming Reddit, but without the nauseating sleaze and legal but illegal search engine gaming. It is created by programmers, for programmers, with the ultimate goal of enhancing the global body of sound programming knowledge. Regardless of the programming language you employ or the operating system you prefer, our aim is better programming. It iscreated for asking questions and getting answers, sharing useful in the future coming days for the young generation which will be more as like Wiki for the present.

Problem Statement

Project Name – Do Connect

Problem Statement: Do Connect is a popular Q and A form in which techniques questions was asked andanswered.

There are 2 users on the application: -

1. User
2. Admin

User Stories –

1. As a user I should be able to login, Logout and Register into the application.
2. As a user I should be able to ask any question under any topic
3. As a user I should be able to search the question on any string written in search box
4. As a user I should be able to Answer any question asked
5. As a user I should be able to answer more than one question and more than one time
6. As a user I should be able to chat with other users.
7. As a user I should be able to upload images to refer.

Admin Stories –

1. As an Admin I should be able to login, Logout and Register into the application.
2. As an Admin I should be able to get mail as soon as any new Question is asked or any Answers given.
3. As an Admin I should be able to approve the question and Answer. Any Question or Answer will bevisible on the platform only if it is approved.
4. As an Admin I should be able to delete inappropriate Questions or Answers.

Instructions –

1. Please use a folder on server to upload the images
2. Please share the database structure in the .sql file.
3. Please create a separate microservice for reports and discount coupons.
4. Please use separate port to deploy the Angular UI and Spring Boot Microservice
5. Please use the UI designing tool like (Bootstrap or Material) to make your UI better
6. Please use Material UI to create the UI.

Design and development environment:

Front-end

A website's visible portion is referred to as the "frontend." It consists of all displayed material that is available to both logged-in and public users. Because it is the interface that visitors can see and use, the frontend is frequently referred to as the GUI (Graphical User Interface). The major purposes of the frontend are to show various forms of information and provide the backend with user input. The website's foundational elements, such as navigation, are included in the displayed content. Texts, pictures, movies, and other materials are all part of the front end.

Html 5

The preferred markup language for texts intended to be viewed in a web browser is HTML, or Hypertext Markup Language. Technologies like Cascading Style Sheets (CSS) and programming languages like JavaScript can help.

HTML documents are downloaded from a web server or local storage by web browsers, who then turn them into multimedia web pages. HTML initially featured cues for the document's design and semantically explains the structure of a web page.

HTML components serve as the foundation for HTML pages. Images and other objects, such as interactive forms, may be embedded within the produced page using HTML techniques.

By indicating structural semantics for text elements like headings, paragraphs, lists, links, quotations, and other objects, HTML offers a way to generate organised texts. Tags, which are written in angle brackets, are used to distinguish HTML components. Tags such as <img /> and <input /> directly introduce content into the page. Other tags such as <p> surround and provide information about document text and may include other tags as sub-elements. Browsers employ the HTML tags to decipher the page's content rather than displaying them.

CSS

The display of a document published in a markup language, such as HTML or XML, is described using CSS, a language for style sheets. The World Wide Web's foundational technologies, along with HTML and JavaScript, include CSS.

With the help of CSS, layout, colour, and font choices may all be separated from content and presentation with the help of CSS. By declaring the pertinent CSS in a separate file, this division can increase content accessibility, offer more flexibility and control in the specification of presentation features, and allow numerous web pages to share formatting. file, which facilitates and lessens complexity and repetition in the structured content. To increase the speed at which pages that share a CSS file and its formatting load, the CSS file should be cached.

Angular JS:

AngularJS was an open-source front-end web framework for building single-page apps that was built on JavaScript. Google, along with a number of other people and businesses, primarily maintained it. By offering a framework for client-side MVC and MVVM architectures together with components frequently found in web apps and progressive web applications, it aimed to make both the building and testing of such applications simpler. AngularJS served as the frontend of the MEAN stack, which also included the Node.js server runtime environment, the Express.js web application server framework, the MongoDB database, and AngularJS itself (or Angular).

Back-end

A website's backend essentially consists of everything the user cannot see. Typically, this refers to the programming that produces the "server-side" content of the website, or the pages that users view. This may include databases, scripts, instructions, and other automatic tasks the server carries out.

Back-end development concentrates more on the logical interactions of data, including how it is stored and communicated, as well as server implementation.

Java

Java is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let programmers write once, run anywhere (WORA), meaning that compiled Java code can run on all platforms that support Java without the need to recompile. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture. The syntax of Java is similar to C and C++, but has fewer low-level facilities than either of them. The Java runtime provides dynamic capabilities (such as reflection and runtime code modification) that are typically not available in traditional compiled languages. As of 2019,Java was one of the most popular programming languages in use according to GitHub, particularly for client–server web applications, with a reported 9 milliondevelopers.

Java was originally developed by James Gosling at Sun Microsystems and released in May 1995 as a core component of Sun Microsystems' Java platform. The original and reference implementation Java compilers, virtual machines, and class libraries were originally released by Sun under proprietary licenses. As of May 2007, in compliance with the specifications of the Java Community Process, Sun had relicensed most of its Java technologies under the GPL-2.0-only license. Oracle offers its own HotSpot Java Virtual Machine, however the official reference implementation is the OpenJDK JVM which is free open-source software and used by most developers and is the default JVM for almost all Linux distributions

Database:

In computing, a database is an organized collection of data stored and accessed electronically. Small databases can be stored on a file system, while large databases are hosted on computer clusters or cloud storage. The design of databases spans formal techniques and practical considerations including data modelling, efficient data representation and storage, query languages, security and privacy of sensitive data, and distributed computing issues including supporting concurrent access and fault tolerance.

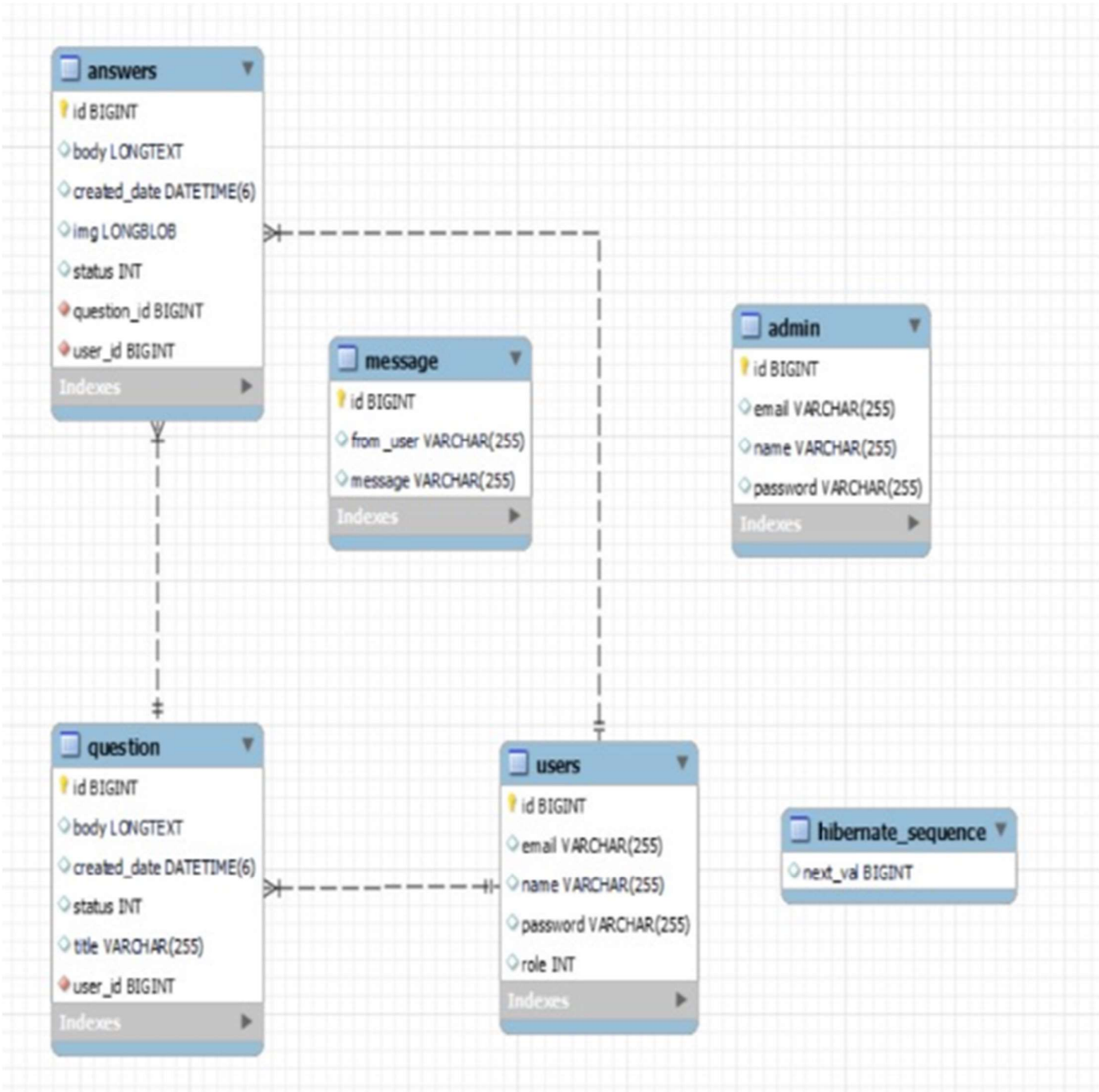
A database management system (DBMS) is the software that interacts with end users, applications, and the database itself to capture and analyse the data. The DBMS software additionally encompasses the core facilities provided to administer the database. The sum total of the database, the DBMS and the associated applications can be referred to as a database system. Often the term "database" is also used loosely to refer to any of the DBMS, the database system or an application associated with the database.

MySQL:

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

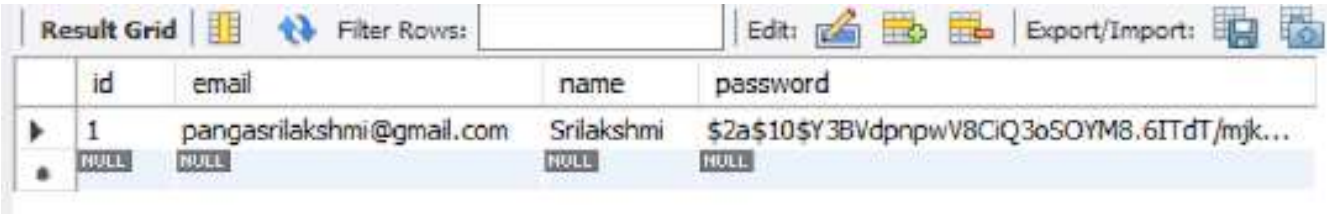
Database Design:

Database Schema:



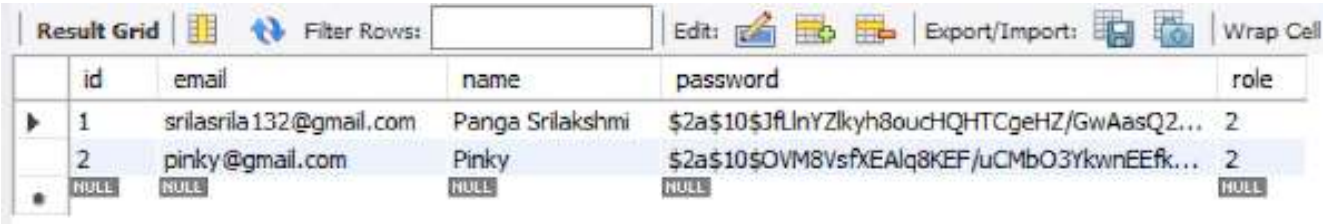
Database Tables:

Admin Table:



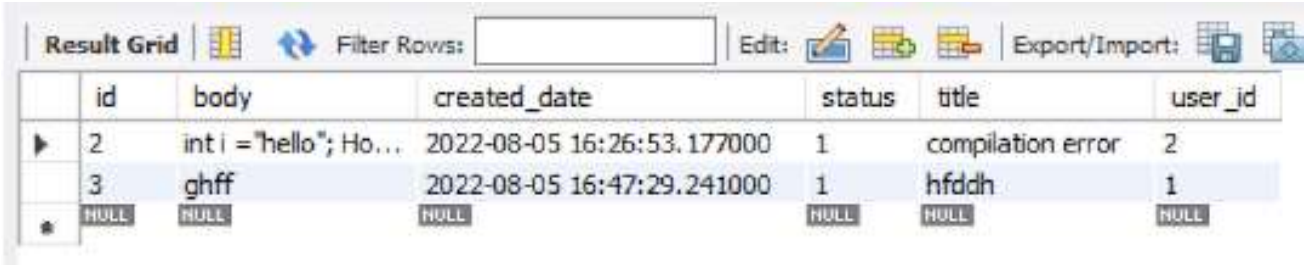
id	email	name	password
1	pangasrilakshmi@gmail.com	Srilakshmi	$2a$10$Y3BVdpnpwV8CiQ3oSOYM8.6ITdT/mjk...
NULL	NULL	NULL	NULL

Users Table:



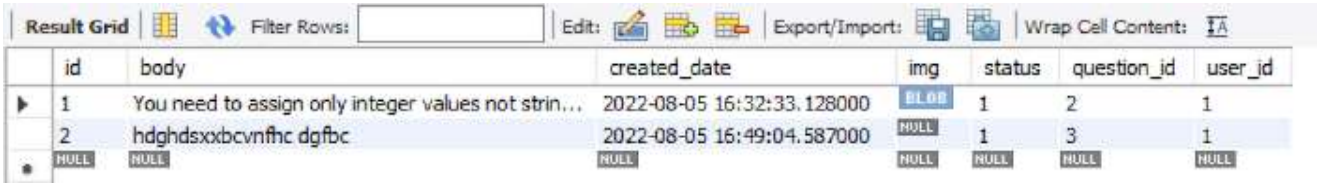
id	email	name	password	role
1	srilasrila132@gmail.com	Panga Srilakshmi	$2a$10$JfLlnYZlkyh8oucHQHTCgeHZ/GwAasQ2...	2
2	pinky@gmail.com	Pinky	$2a$10$OVM8VsfXEAlq8KEF/uCMbO3YkwnEEfk...	2
NULL	NULL	NULL	NULL	NULL

Questions Table:



id	body	created_date	status	title	user_id
2	int i ="hello"; Ho...	2022-08-05 16:26:53.177000	1	compilation error	2
3	ghff	2022-08-05 16:47:29.241000	1	hfddh	1
NULL	NULL	NULL	NULL	NULL	NULL

Answer Table:

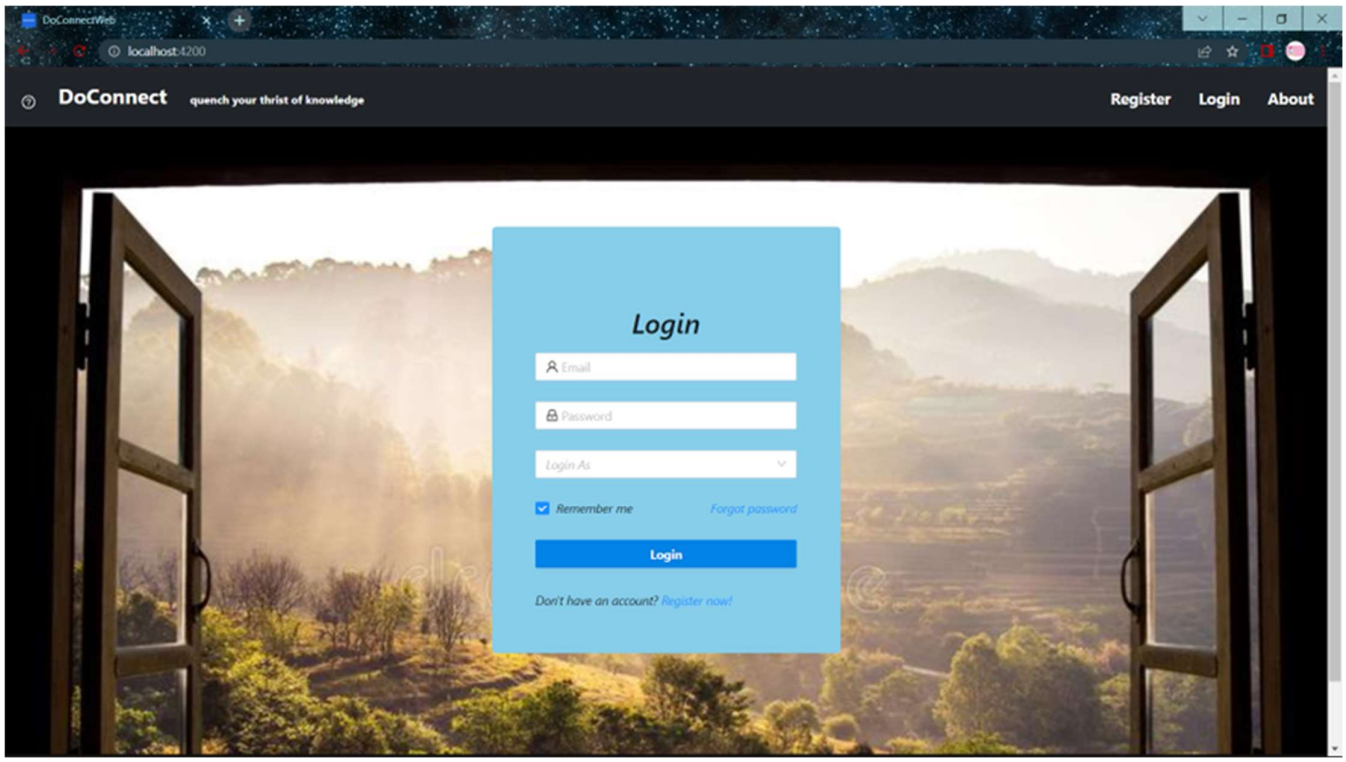


id	body	created_date	img	status	question_id	user_id
1	You need to assign only integer values not strin...	2022-08-05 16:32:33.128000	BLOB	1	2	1
2	hdghdsxxbcvnfhc dgfbc	2022-08-05 16:49:04.587000	NULL	1	3	1
NULL	NULL	NULL	NULL	NULL	NULL	NULL

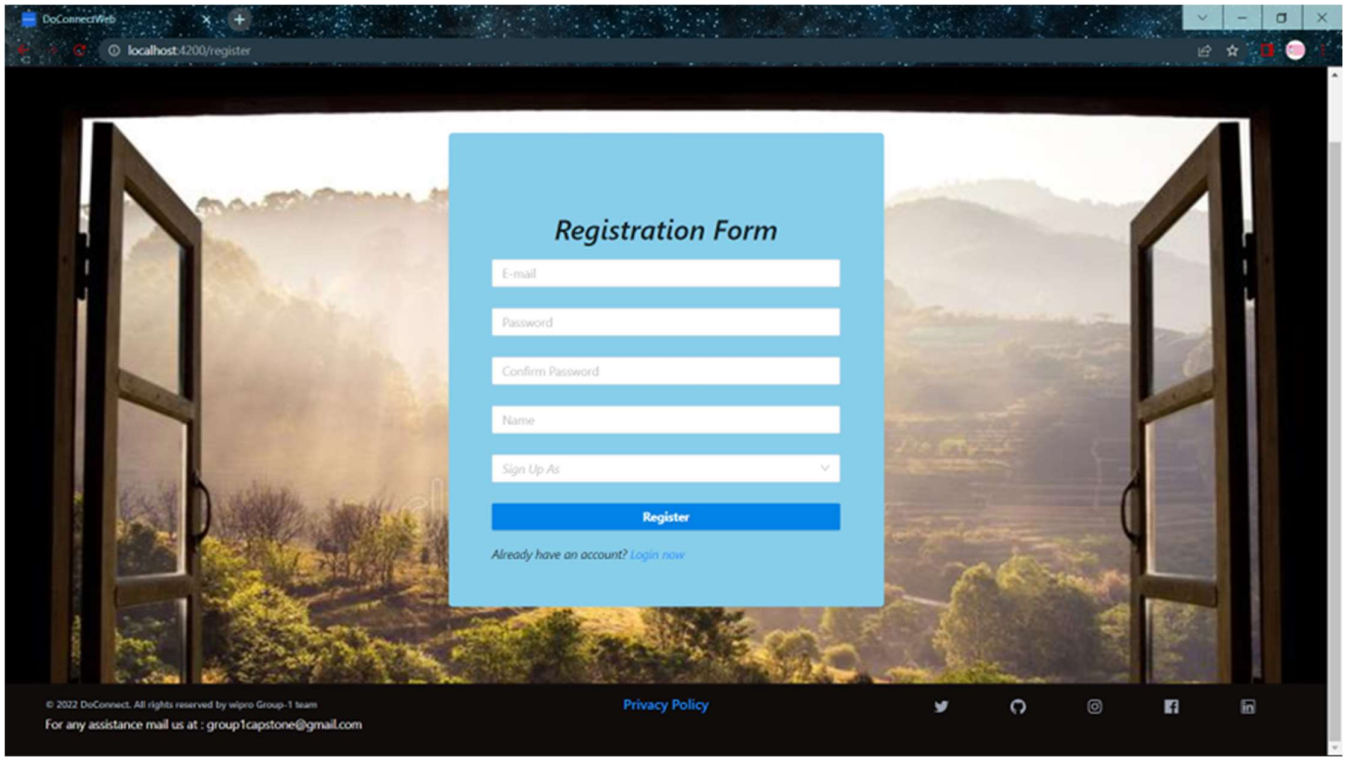
Design and Implementation of the Site:

User Pages:

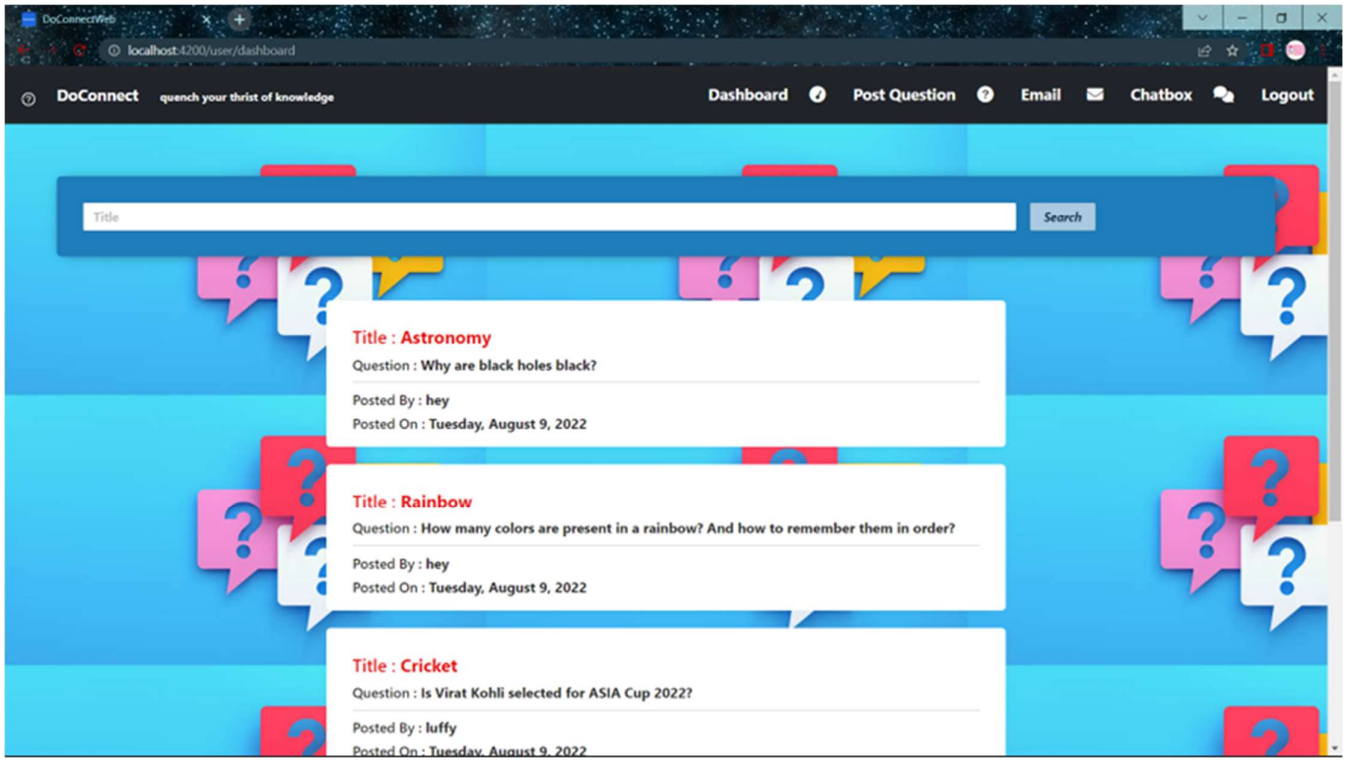
Login Page: (for both admin and user)



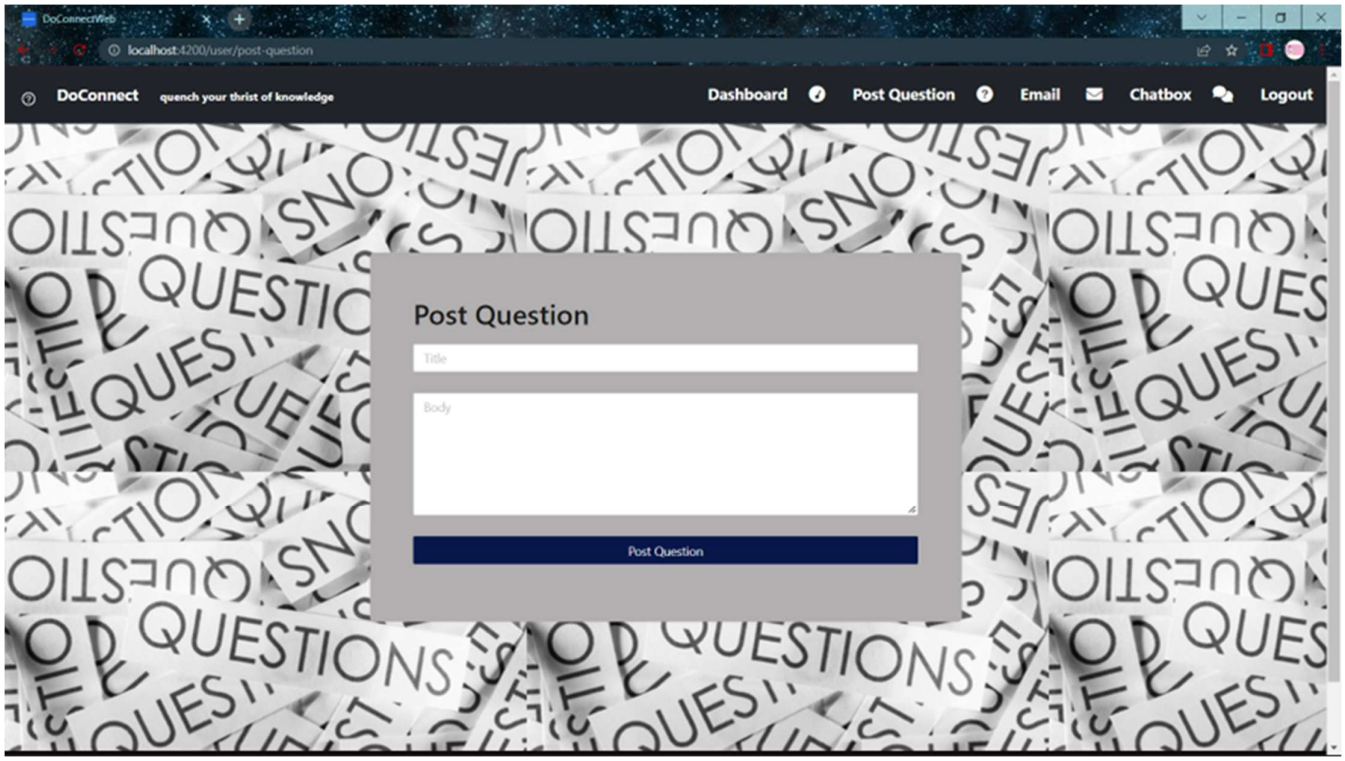
Sign up Page: (for both admin and user)



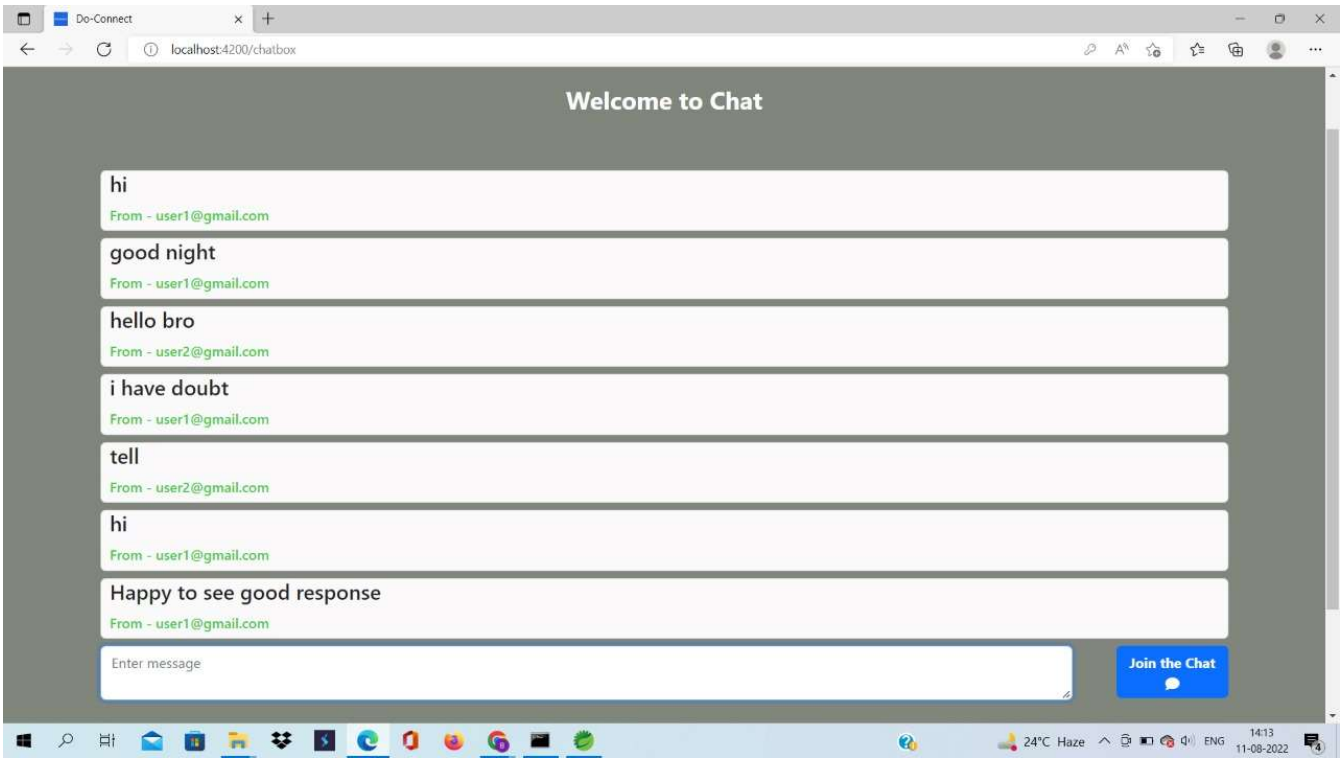
User Dashboard Page:



Post Question Page:

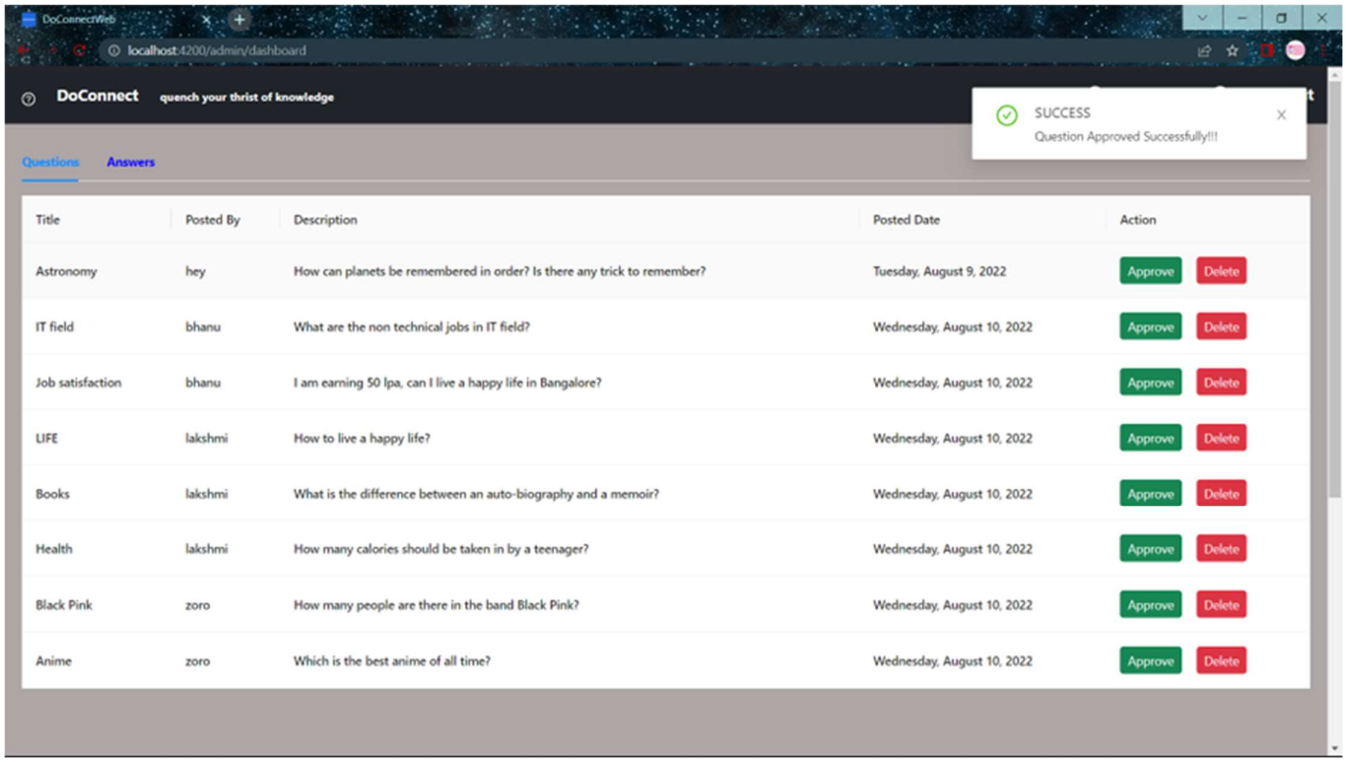


Chat Box Page:

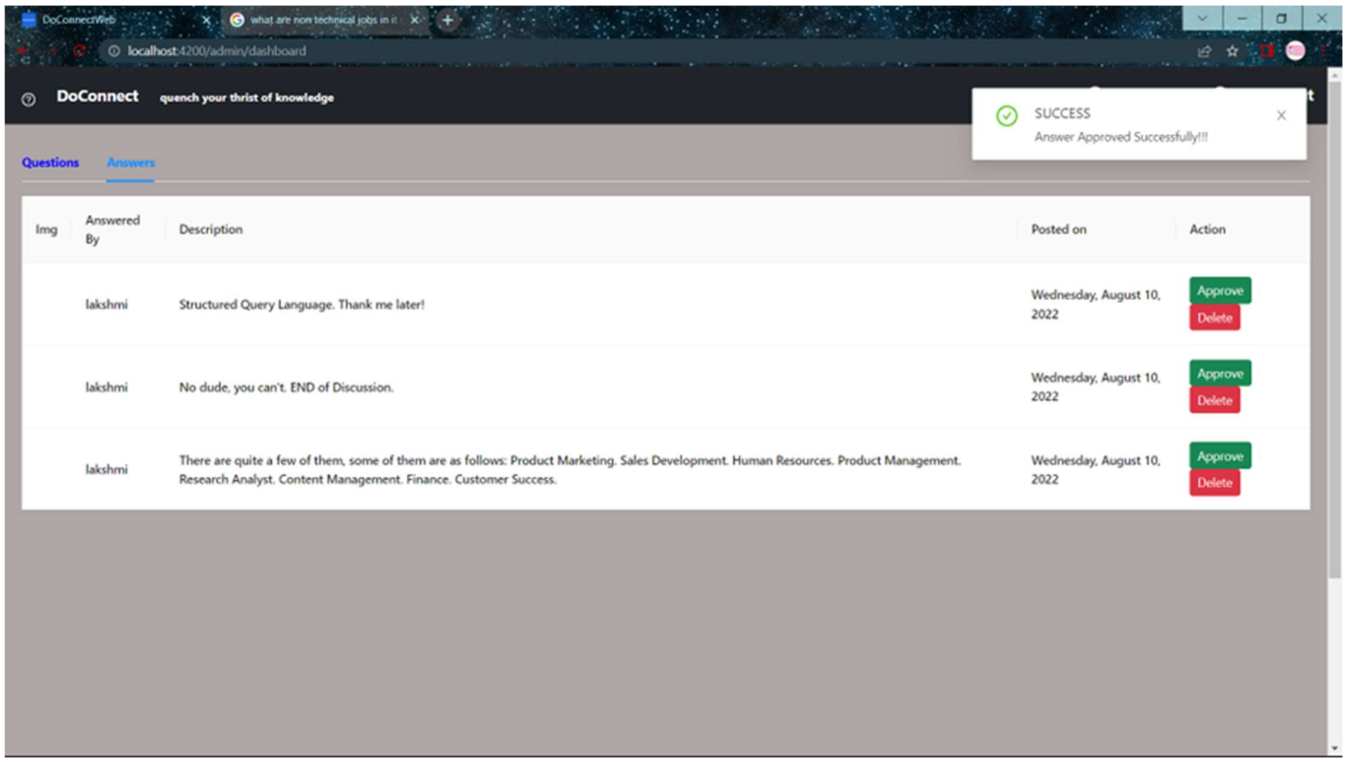


Admin Pages:

Approve/Delete Question Page:



Approve/Delete Answer Page:



Installation Steps:

Required Software:

1. Spring Tool Suite
2. Visual Studio Code
3. MySQL

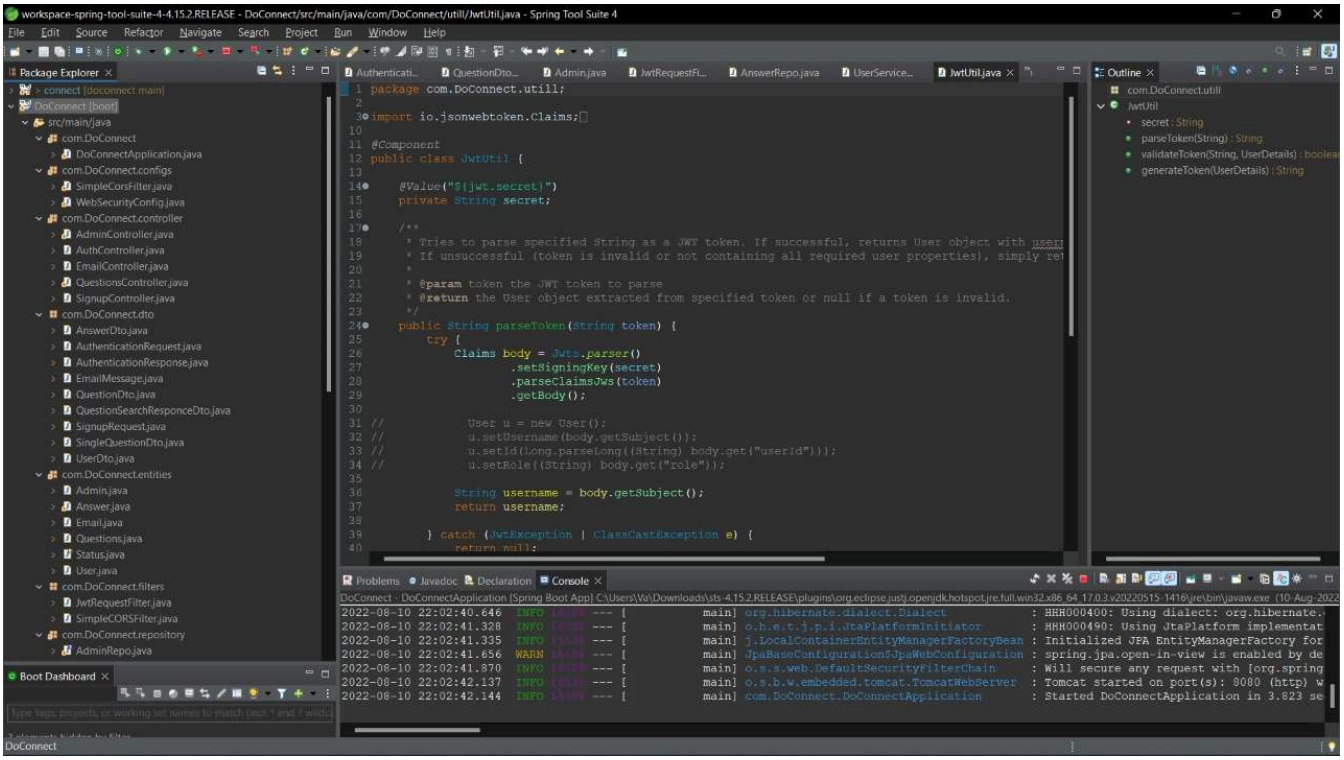
Create database in MySQL Workbench:

1. Open MySQL Workbench.
2. Click on create new Schema.
3. Create schema named doconnect_db.
4. Now Database is successfully created.

Building backend project in Spring Tool Suite:

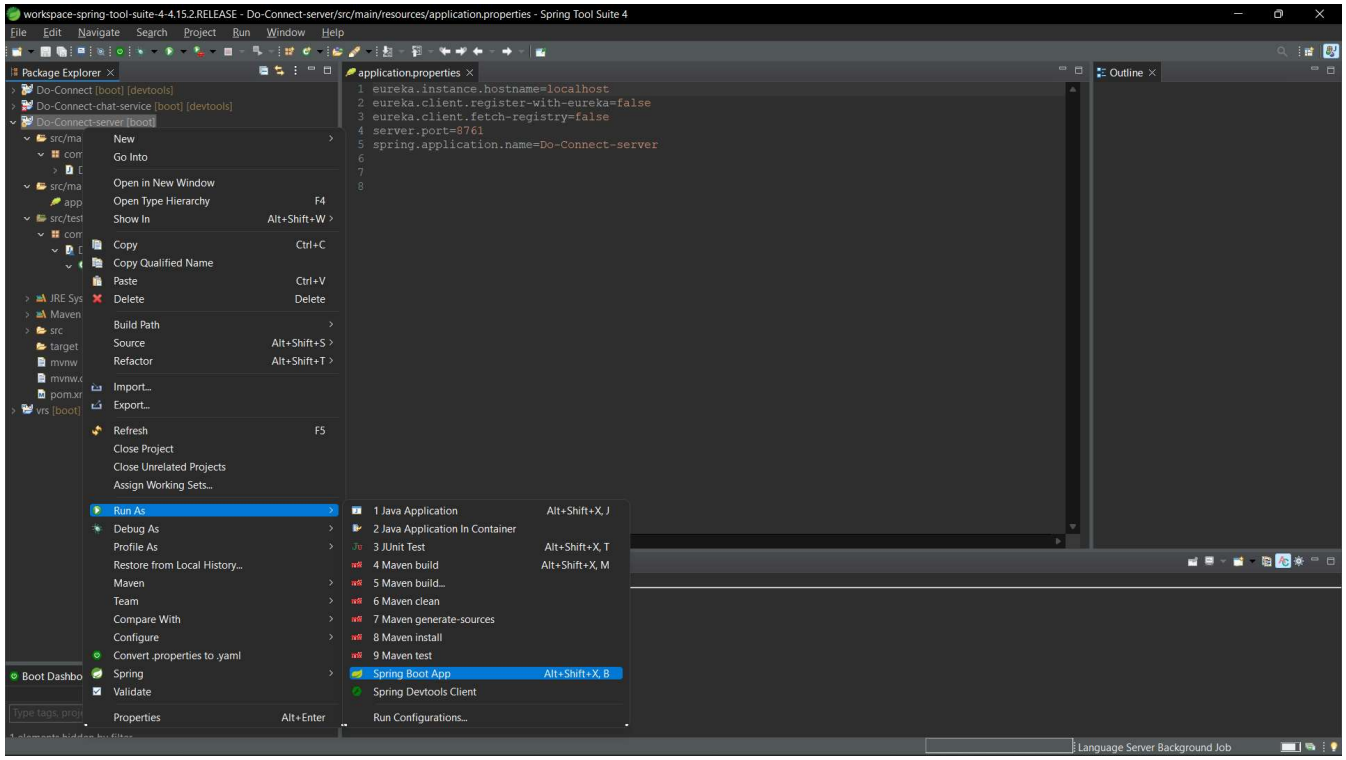
1. Open Spring Tool Suite.

2. Build all three projects in workspace and save in a particular folder.

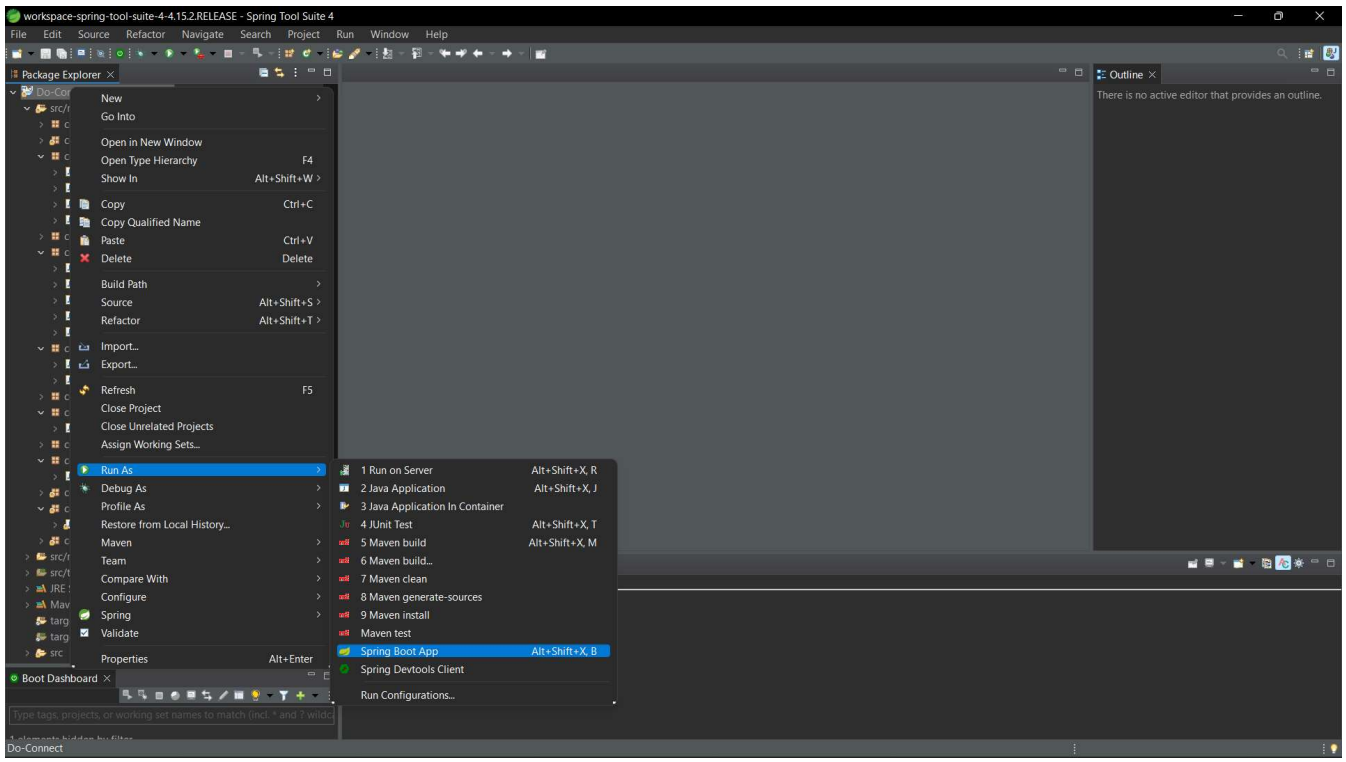


Note: - In the Project, MySQL username is root and password is root123, and these can be changed in application.properties file.

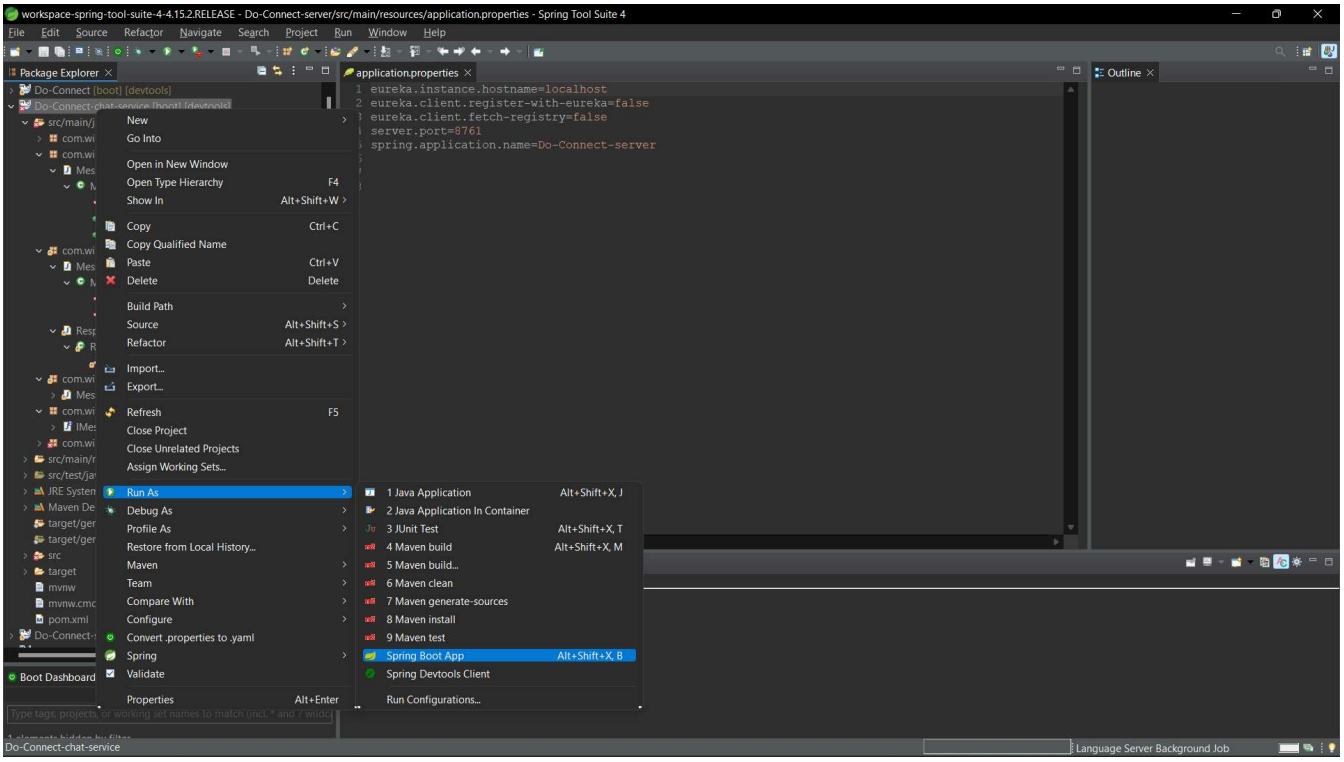
3. First Open Do-Connect-server project and run it as spring Boot App.



4. Then Open Do-Connect project and run it as spring Boot App.



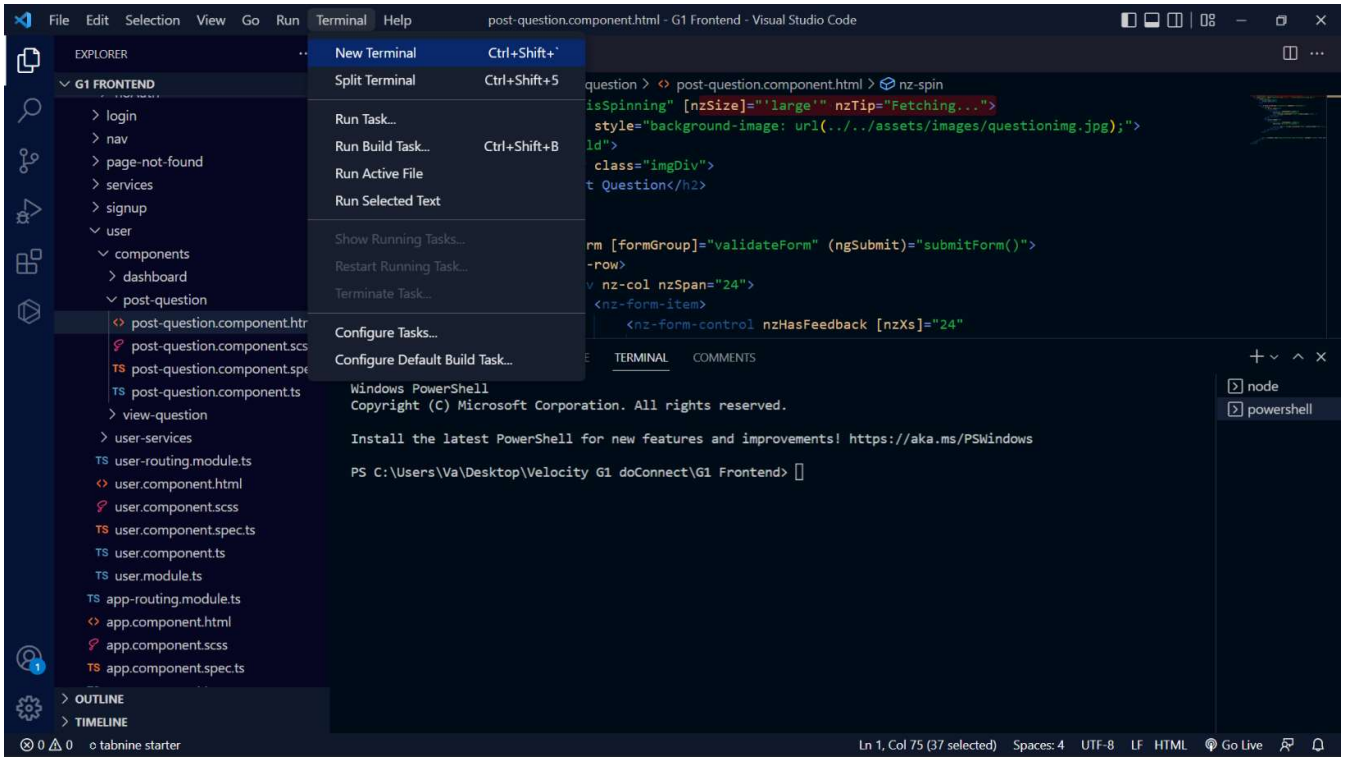
5. Then Open Do-Connect-Chat-service project and run it as Spring Boot App.



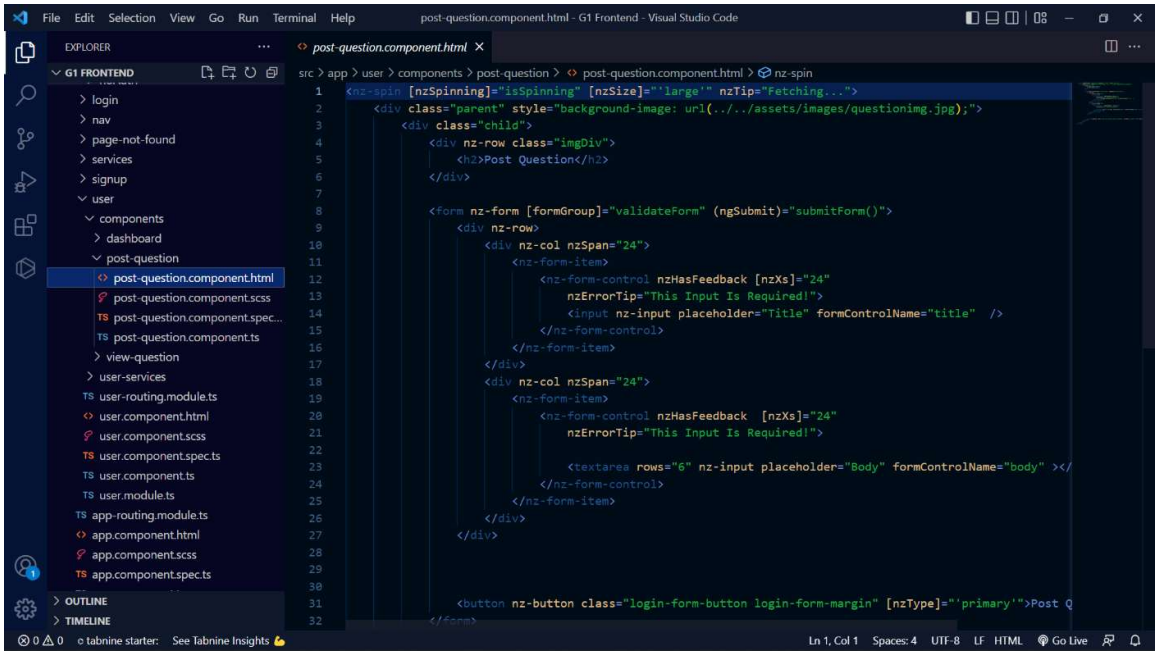
Note: - Do-Connect service is running on port 8081
Do-Connect-Chat service is running on port 8082
Do-Connect-Server (Eureka Server) is running on port 8761
So please make these port free to run the application.

Create Frontend Project in Visual Studio Code using angular:

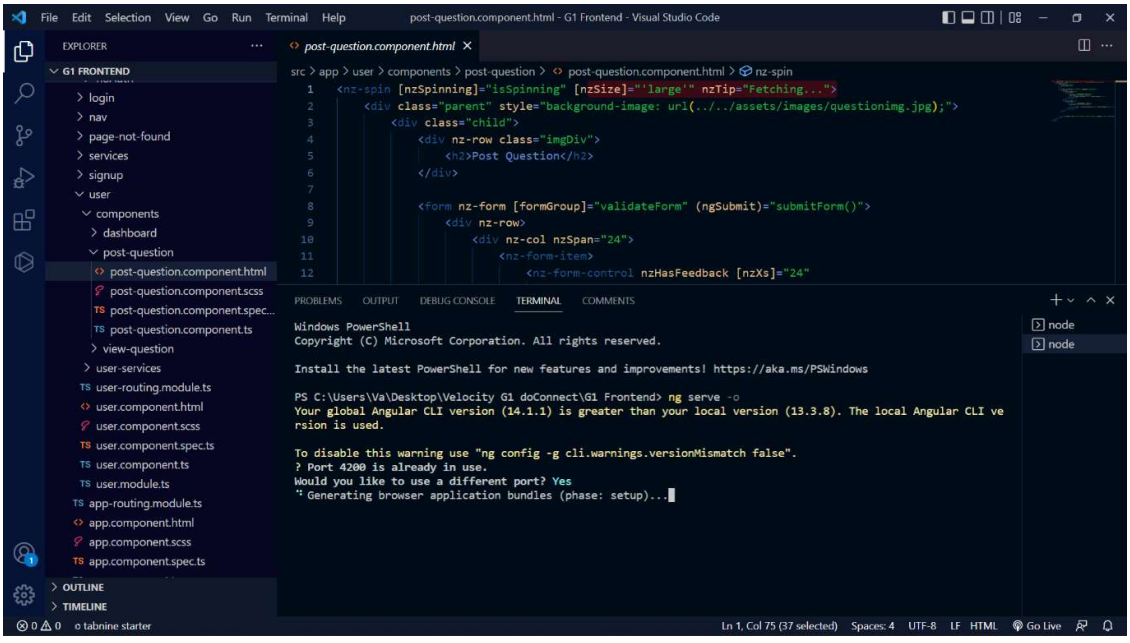
1. Open Visual Studio Code.
2. Go to new terminal for creating a new project.
3. Commands should be given in order to create a new project and they are as follows:(every command is written in the terminal)
   a. Install node and check its version using “node -v” command.
   b. Install angular using the command “npm install -g @angular/cli”. We can check its version using “ng -version” command.



   c. We have to download various libraries which are used in the project. They can be installed using “npm install” command.
   d. Now to create a new project, “ng new project_name” command is used. You can name your project as your wish.
   e. Go to the project location using “cd project_name”
   f. All the coding related to the frontend is built here in the “src” file.



g. Now as the project frontend is prepared, we have to serve it to a server. To do this “ng serve” or “ng serve -o” command is used in the terminal and we will get the output through 4200 port by default or through any other port.



4. Open any browser of your interest and type http://localhost:4200 to access the content.

Conclusion

Do Connect is a popular Q and A form in which techniques questions was asked andanswered.

This application allows the users to register using their e-mail id, name. Then he/she can login using his/her credentials. User can post any question in the post question section or he can also answer to the questions posted by other users. The users can chat with the other users to share their knowledge, ask doubts, etc. in the Chat box section. This can help the people across the globe to enhance their knowledge. The admin has complete control over the website. The admin has the right to approve any question/answer or delete any inappropriate question or answer.

A lot of work has been done in the development of this project. We've improved ourself in the aspects of teamwork, hard work, smart work, etc.