

A PROJECT REPORT ON

LEGALTALKS

A Q&A PLATFORM FOR

LEGAL QUERIES



SUBMITTED BY

Akash Kamble
Soham Badgujar
Rahul Nagpure
Ritik Matere

UNDER THE GUIDANCE
OF
PROF. G. S.
MUJUMDAR

DEPARTMENT OF COMPUTER ENGINEERING PIMPRI-CHINCHWAD
POLYTECHNIC AKURDI, PUNE-411044.
(2020-2021)

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ON**

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A Dissertation submitted in partial fulfillment

DIPLOMA IN COMPUTER ENGINEERING

AFFILIATED TO MSBTE



Submitted by

**Akash Kamble
Soham Badgujar
Rahul Nagpure
Ritik Matere**

Under the guidance of

Prof. G. S. Mujumdar

**DEPARTMENT OF COMPUTER ENGINEERING
PIMPRI CHINCHWAD POLYTECHNIC AKURDI, PUNE 2020-2021.**

**PIMPRI CHINCHWAD EDUCATION TRUST'S
PIMPRI CHINCHWAD POLYTECHNIC**

**DEPARTMENT OF COMPUTER ENGINEERING PRADHIKARAN, AKURDI,
PUNE-411044.**



CERTIFICATE

This is to certify that the end term
Project report entitled

LEGALTALKS

**A Q&A PLATFORM FOR
LEGAL QUERIES**

Has been completed successfully by-

**Akash Kamble
Soham Badgujar
Rahul Nagpure
Ritik Matere**

Prof. G. S. Mujumdar
Project Guide

Prof. M. S. Malkar
H.O.D

Prof. V. S. Byakod
Principal

(External Examiner)

Seal of Institute

Maharashtra State Board of Technical Education for

Academic Year 2020-2021

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Roll No.	Name	Sign
09	Akash Kamble	
54	Soham Badgujar	
58	Rahul Nagpure	
61	Ritik Matre	

ABSTRACT

What if you had a query regarding law but you aren't a lawyer or well-versed in laws? What if the Internet or Books you refer don't give you an appropriate and satisfying answer, despite wasting so much time in searching? What if someone can solve your legal query but requires money in exchange? What if you, as a lawyer, have an ongoing case in which you require some help? In such situations, **Legal Talks** is always available to help you and protect your rights, that too without any cost!

Legal Talks is a QnA platform where anyone having a legal query can get satisfying and appropriate answers and suggestions from certified lawyers. Anyone who has a legal query can ask the query in concerned domain (such as Property, Finance, Disputes, Criminal Offense, etc.) and certified lawyers can answer and provide guidance to the query, leaving the choice to the querier to select the appropriate response for his query.

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**CHAPTER 1:
INTRODUCTION AND
BACKGROUND OF
THE INDUSTRY OR
USER BASED
PROBLEM**

CHAPTER 1

INTRODUCTION AND BACKGROUND OF THE INDUSTRY OR USER BASED PROBLEM

1.1 Motivation

While deciding the topic for the project to work on our team have come across various innovative topics that could have helped people to solve their real life problems, but we wanted to work on the project that can have social impact too, common people sometimes are deprived of their rights or deceived in matters just because they lack legal knowledge or cannot find an appropriate legal advice or they are not willing to spend in a lawyer. Therefore to help protect common peoples' rights, we have create Legal Talks – A Q&A platform for legal queries, where anyone not sure of what actions to take next in accordance to law in their legal matters can get worthy answers/suggestions for their queries.

1.2 Background

Question and Answer is a platform in which if user have any query he can post it and other users or an expert will try to help you by answering the question. Most of the Question and Answer platform are free of cost and user driven in which one user asks/posts the question/query and other user answers it. Some platforms are paid in which you will get your answer from and expert and knowledgeable person in that field. Within the past few years, Q&A websites such as StackOverflow, Quora, QsAns, etc., has become famous and widely used among the users who has any doubt or questions. Lots of Questions come to our mind daily and we get stuck many times finding the answer of these questions. Q&A websites are really helpful in answering these questions. For just a specific answer instead of searching in the books and wasting your time in that by consuming unwanted knowledge you can just post your question and someone that has knowledge about it will directly give you the specific answer.

1.3 Need

Question and Answer is a platform in which if user have any query, he can post it and other users or an expert will try to help you by answering the question. Most of the Questions and Answers platform are free of cost and user driven in which one user asks/posts the question/query and other user answers it. Some platforms are paid in which you will get your answer from an expert and knowledgeable person in that field.

Within the past few years, Q&A websites such as StackOverflow, Quora, QsAns, etc. have become famous and widely used among the users who have any doubt or questions. Lots of Questions come to our mind daily and we get stuck many times finding the answer of these questions. Q&A websites are really helpful in answering these questions. For just a specific answer instead of searching in the books and wasting your time in that by consuming unwanted knowledge you can just post your question and someone that has knowledge about it will directly give you the specific answer.

Law is very important for maintaining the order among people. Every Indian should at least have basic knowledge about the law. But There are lots of people in India which are not well versed in Law and have many questions and doubts. Our solution to that's is developing an Indian Law Q&A website that will help users to get their answers. A user just has to post their question/query in the website and certified lawyers will help them by answering their questions and solving their doubts.

CHAPTER 2:
LITERATURE SURVEY
FOR PROBLEM
IDENTIFICATION AND
SPECIFICATION

CHAPTER 2

LITERATURE SURVEY FOR PROBLEM IDENTIFICATION AND SPECIFICATION

2.1 Existing System

1) Law StackExchange (<https://law.stackexchange.com/>):

StackExchange is a network of Q&A websites in which Law StackExchange is a website for questions related to law. It is an International Law Q&A website. StackExchange has a huge user base they get about 100 Million visitors every month.

Till date over 21 Million questions have been asked. As it is an international website and law varies from country to country finding questions related to specific country is difficult. It is not an website specifically for Indian Law.

2) Kanoon (<https://www.kaanoon.com/>):

Kanoon is an Indian online platform that makes high quality legal solutions accessible and affordable to all. They help individuals get their legal questions answered, consult lawyers on the phone, and to find a competent lawyer without wasting thousands of rupees on the wrong lawyer. Kanoon is specifically for Indian Law.

User can post their question/query and the certified lawyers will answer the question then user have an option to talk and discuss with any lawyer they want by paying them rs900 for 15min.

3) LawGuru (<https://www.lawguru.com/>):

LawGuru is an International Law Q&A website started by two California Attorneys in 1996. At starting goal of LawGuru was to provide simple legal information and answer about frequently asked questions.

Till date LawGuru has provided over a Million answers to the questions. It not specifically for Indian Law so finding questions related to Indian Law is difficult.

2.2 Description

In our Law Q&A platform there will be three modules User, Lawyer and Moderators. A user can create an account and post queries/questions on the forum and certified lawyer will answer their queries. Moderators are responsible for moderating the content such as delete inappropriate questions/answers, block users, etc.

For developing this platform/website we are going to use various languages such as python, PostgreSQL, HTML, CSS, Javascript, etc. At the backend of the website we are going to use Django framework of python which is best for rapid development and clean programmatic

design. At the Frontend we are going to use CSS Framework Bootstrap which is widely used for web development purposes.

2.3 Features

- **Clean and Interactive User Interface (UI)**

The User Interface is very important as it is the layer between user and database which helps user to use the platform. Our website UI is clean and user friendly and hence easy to navigate so user can explore whole website with least effort.

- **View and Edit Profile**

User or Lawyer can View their profile by clicking on the button present on the navbar they can also edit/update their details such as username, email, profile picture etc. Users can also view others profile by clicking on their username from the question or answer card.

- **Answers only by Verified Lawyers**

Legal talks makes sure that the lawyers signing up are the authenticate lawyer by verifying their BAR Enrollment Number. So no fake/fraudulent user can sign up as lawyer. Hence users who will post queries/questions will only get the answered by authenticate lawyers which are actually practicing law.

- **Anonymity**

If a user or lawyer thinks that posting a question or answering a question will harm their reputation or social status in any way they can just go anonymous while posting the question answering it.

- **Your Content Page**

User and Lawyer can view all their asked questions and lawyer can view their questions as well as their answers in one place on your content page.

- **Search Previously asked queries/questions**

User can use search bar which is present on the navbar for searching previously asked query. If the same query has been asked already asked by the user and answered by the lawyer then that user will not have to go to all the trouble of asking the query and wait for the answer.

- **Edit and Delete Queries and Answers**

User/Lawyer can edit their questions and answers from Your Content page or If they click on their question or answer then they will be sent the detailed view of that questions where they can edit/delete their question/answer

- **Question Filter**

At the Homepage user has a Filter Categories section used to sort the questions as per specific categories which consists of various categories in which questions are classified such as Business Law, Civil Law, Constitutional Law, Consumer Law, Criminal Law, etc.

- **Upvote/Downvote Questions and Answers**

Users can rank answers questions based on how relevant or helpful they found it. This feature is intended to help maintain the quality of content posted online. More the Upvotes means that the question/answer was very helpful to the users and lots of people liked it. More the Downvote means question/answer was not helpful to the users and they disliked it.

- **Report Question**

Reports are very important for finding the inappropriate questions which should be removed from the platform. Users report the questions they find inappropriate which helps in maintaining the quality of the content.

2.4 Advantages

- 1) Gain knowledge about the Indian Law share it vice versa.
- 2) Ask questions/doubts regarding the Indian Law.
- 3) Connect with others people and take some time with interacting with them and increase the social circle.
- 4) Precise and Accurate Answers by verified Lawyers
- 5) Makes people aware about the Indian Law.

2.5 Dis-advantages

- 1) With the lots of users using the platform there can be of redundant questions and answers which can lead to users to navigate and find the content they want to consume. It can also lead to the increased cost of storage.

CHAPTER 3:
PROPOSED DETAILED
METHODOLOGY OF
SOLVING THE
IDENTIFIED PROBLEM
WITH ACTION PLAN

CHAPTER 3

DETAILED METHODOLOGY OF SOLVING THE IDENTIFIED PROBLEM WITH ACTION PLAN

3.1 Project Modules:

Legal Talks will contain three modules as per following:

- 1) User
- 2) Lawyer
- 3) Admin/Moderator

1. User Module



A user is a normal person who can ask questions on the forum and expect to get answer to their question. Users have to register before asking questions.

After registration user can perform various activities listed below:

- User can ask queries.
- User can Search for previously asked queries.
- User can Filter the question on the Homepage as per the categories
- User can Edit/Delete their asked queries.
- User can Upvote/Downvote the question as well Answers given by lawyers.
- User can View their Profile and also update it if they wish.
- User can also view other users or lawyers profile they can find their contact details there.
- User can Report questions and answers if they find them inappropriate.

2. Lawyer Module



Lawyer is a person that has done some kind education in Indian Law and is well versed with Law. A Lawyer must have cleared the BAR Examination and should have BAR Enrolment number. For Sign Up the lawyer has to enter their BAR Enrolment number then a verification code will be sent to the email which is linked to the BAR Enrolment number the lawyer can enter that code and verify.

Then After the Signing Up the lawyer can perform various activities listed below:

- Lawyer can Answer as well as ask queries.
- Lawyer can search for previously asked queries.
- Lawyer can Edit/Delete their answers or asked queries.
- Lawyer can use Filter feature for the questions on the Homepage.
- Lawyer can Upvote/Downvote questions and answers.
- Lawyer can view and update their profile if they wish.
- Lawyer can view others users and lawyers profile and find their contact details there.
- Lawyers can Report questions and answers if they find them inappropriate.

3. Admin/Moderator Module



Admin/Moderator is the who responsible for maintaining the website. He is responsible for moderating the content. Admin/Moderator is a parent module of User and Lawyer Modules A Admin/Moderator can everything that a user can but also has many privileges.

Moderators can perform activities listed below:

- Admin/Moderator can perform every activity that can be performed by user and lawyer.
- Admin/Moderator can Delete/Edit any question/answer if they found it inappropriate.
- Admin/Moderator can restrict the inappropriate users.
- Admin/Moderator can review the reported questions/answers
- Admin/Moderator can sort the content and maintain it.

3.3 Input and Output

Input

First Name, Last Name. Email, Username, Date of Birth, Phone Number, Password, Profile Picture, Gender, Question, Answer,

Output

User will get a well Organized Question And Answer Website. User can also View, Edit and Delete their Input Details. User can perform various function on the website

3.2 System Architecture

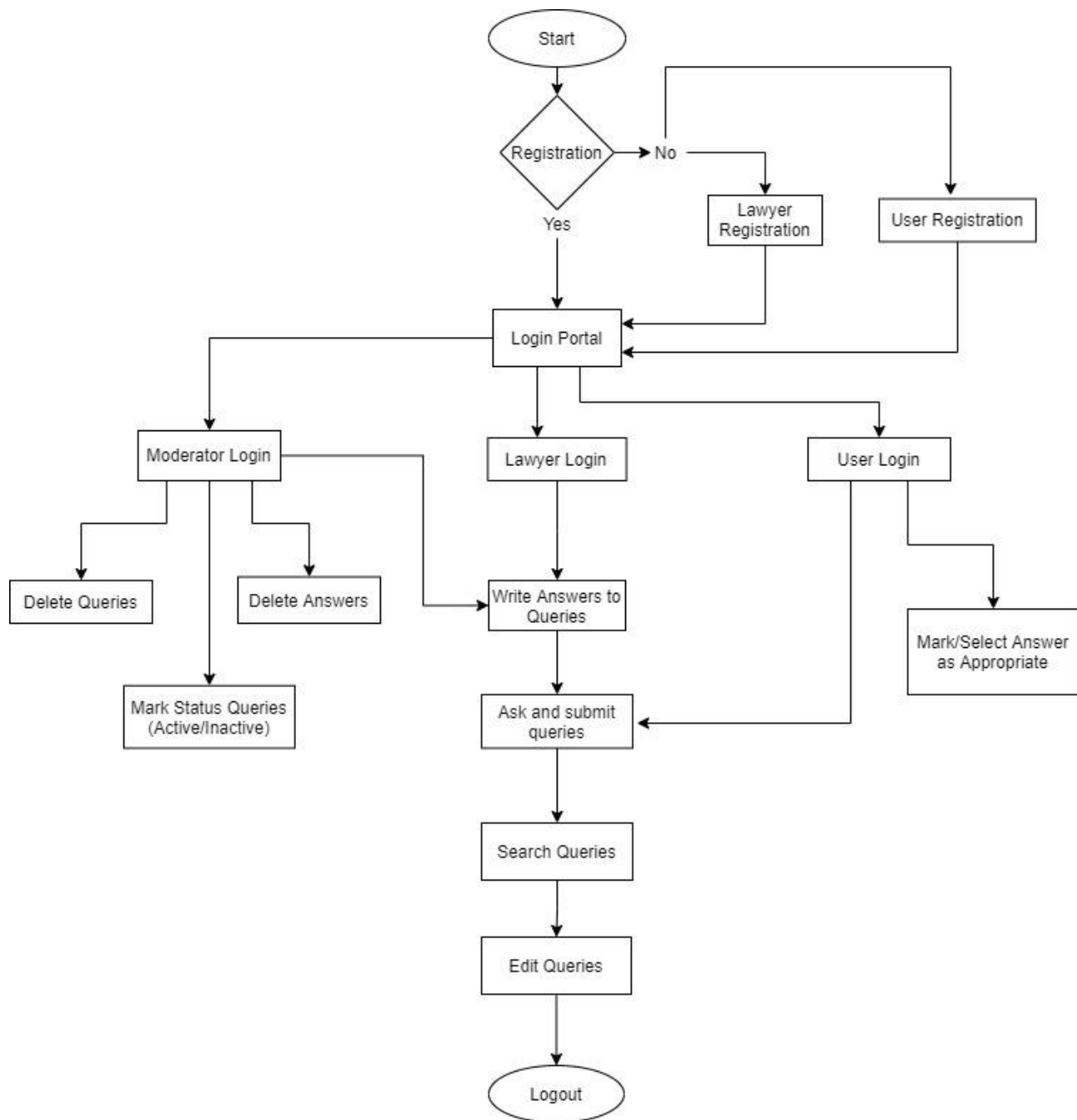


Fig 3.1:- Architectural Design of Legal Talks

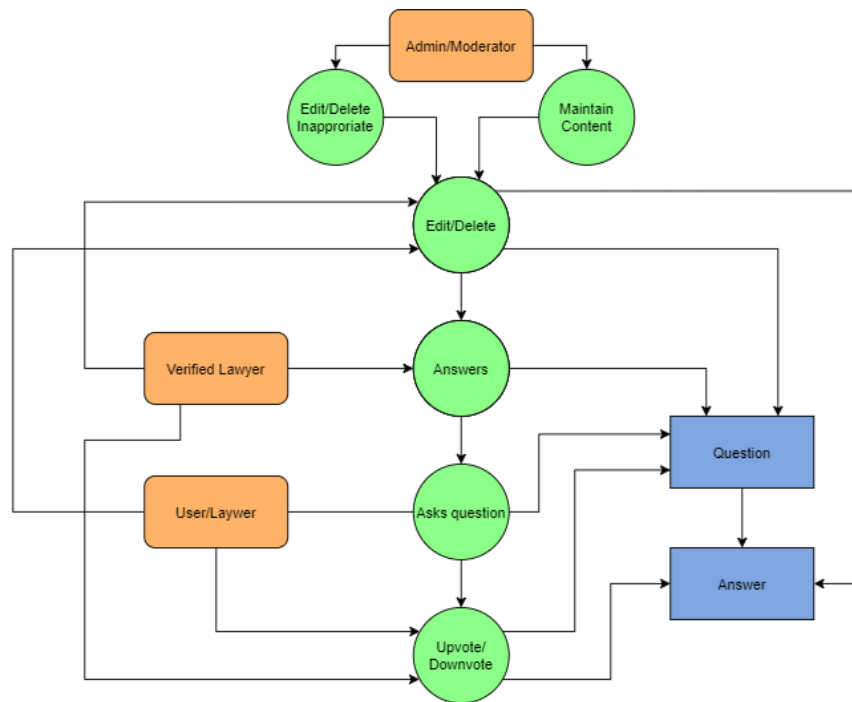


Fig 3.2:- Modules and Functions Diagram

3.3 UML Designs

a. Data Flow Diagram (DFD)

i. DFD Level 0

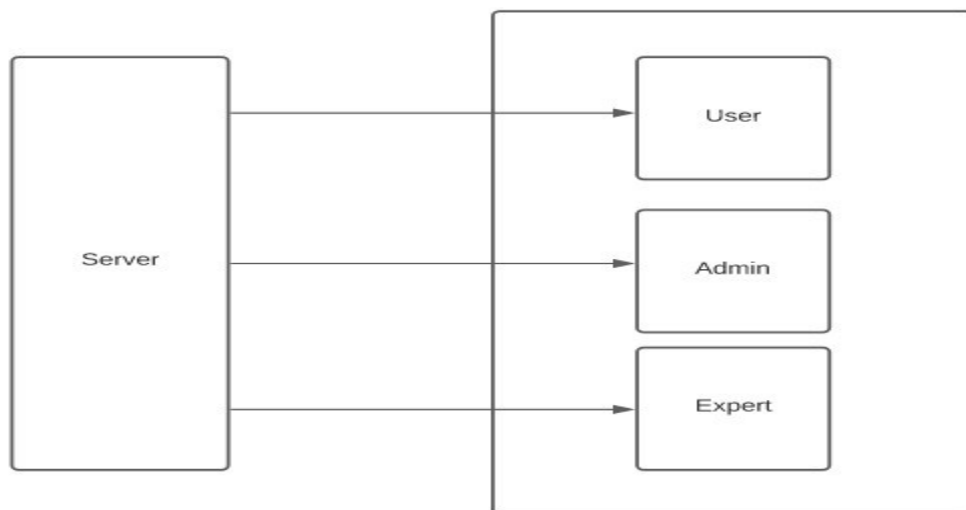


Fig 3.3:- DFD Level 0 Diagram

ii. DFD Level 1

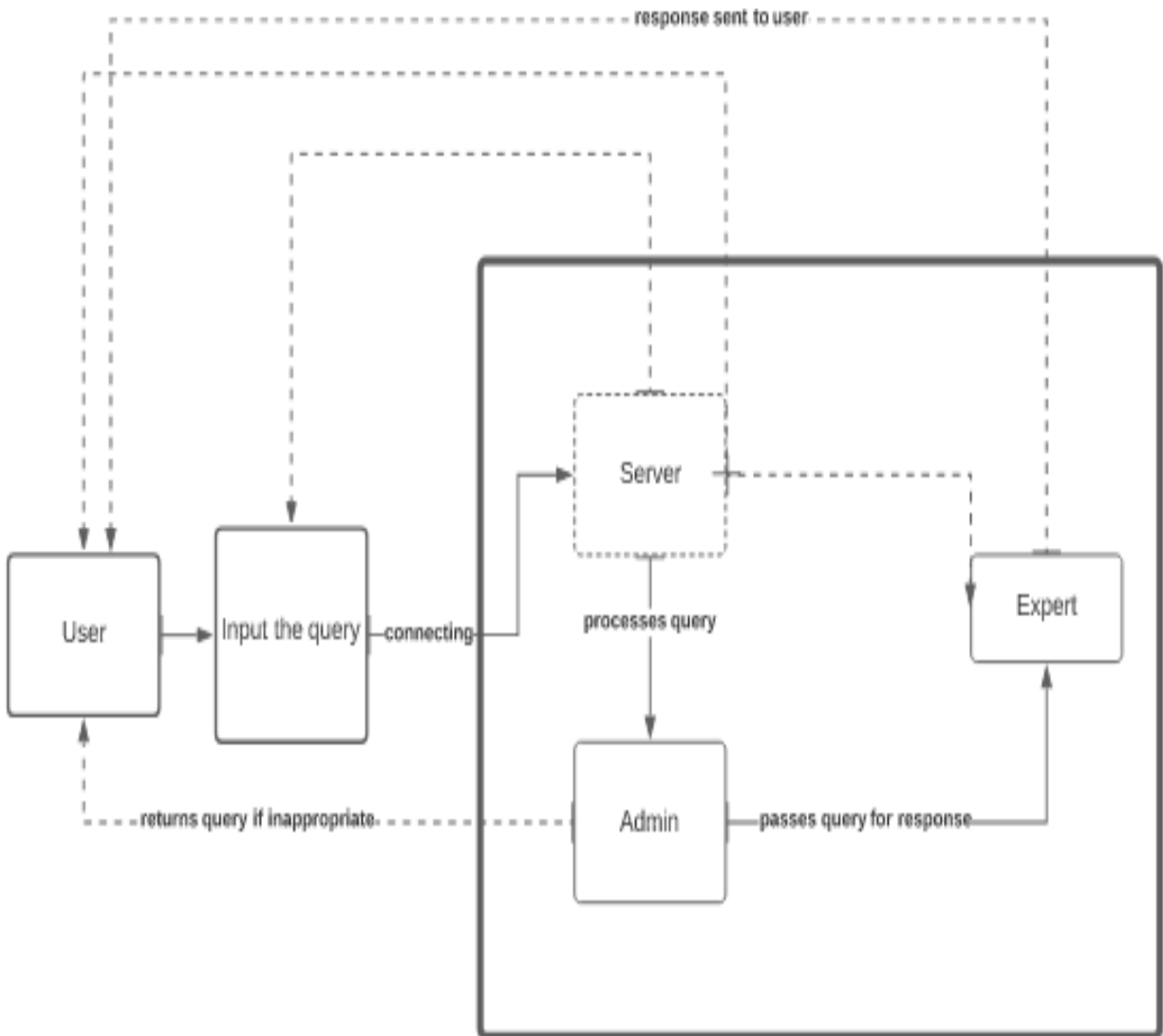
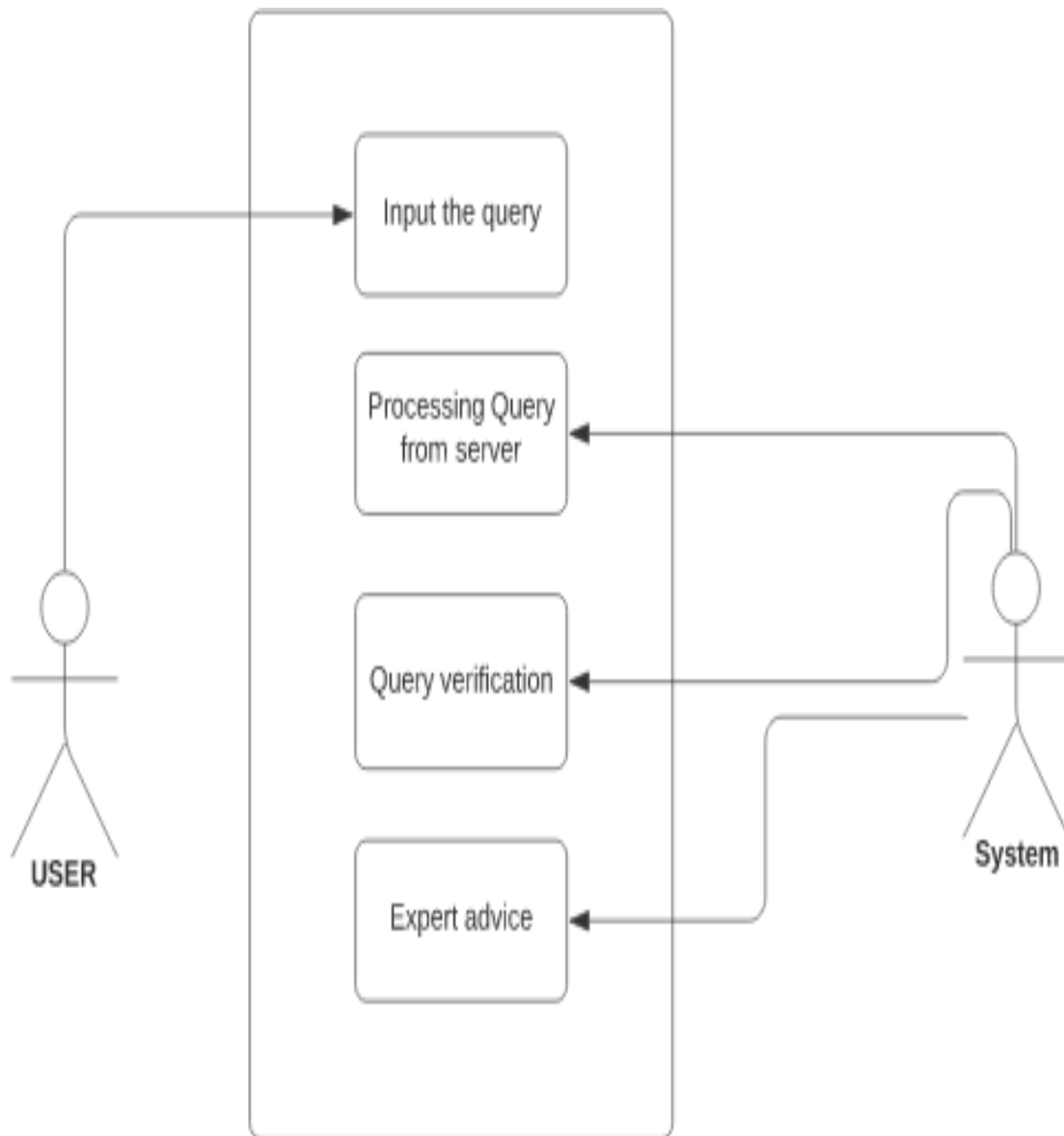


Fig 3.4:- DFD Level 1 Diagram

b. Use Case Diagram**Fig 3.5:- Use Case Diagram**

a. Class Diagram

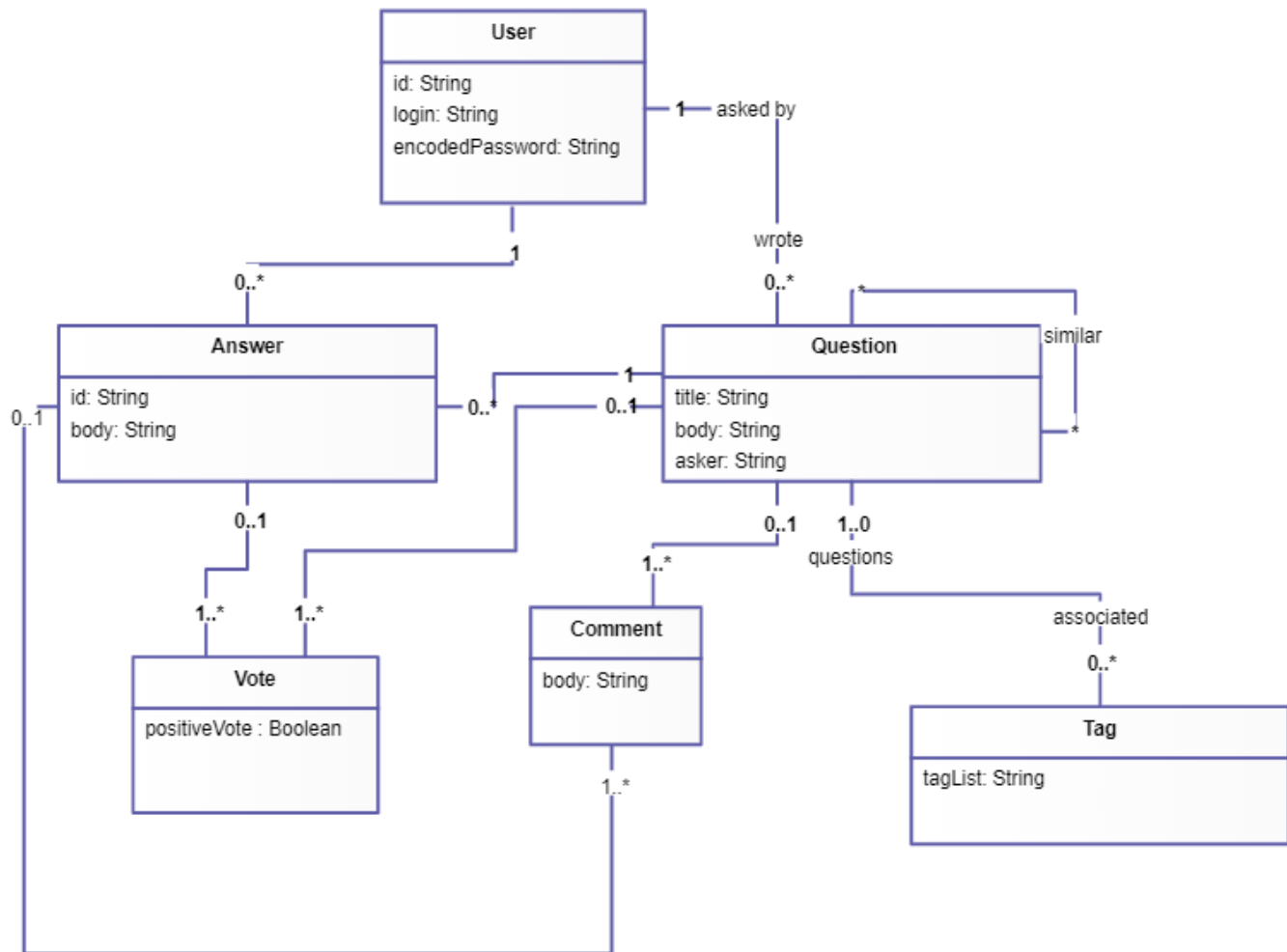
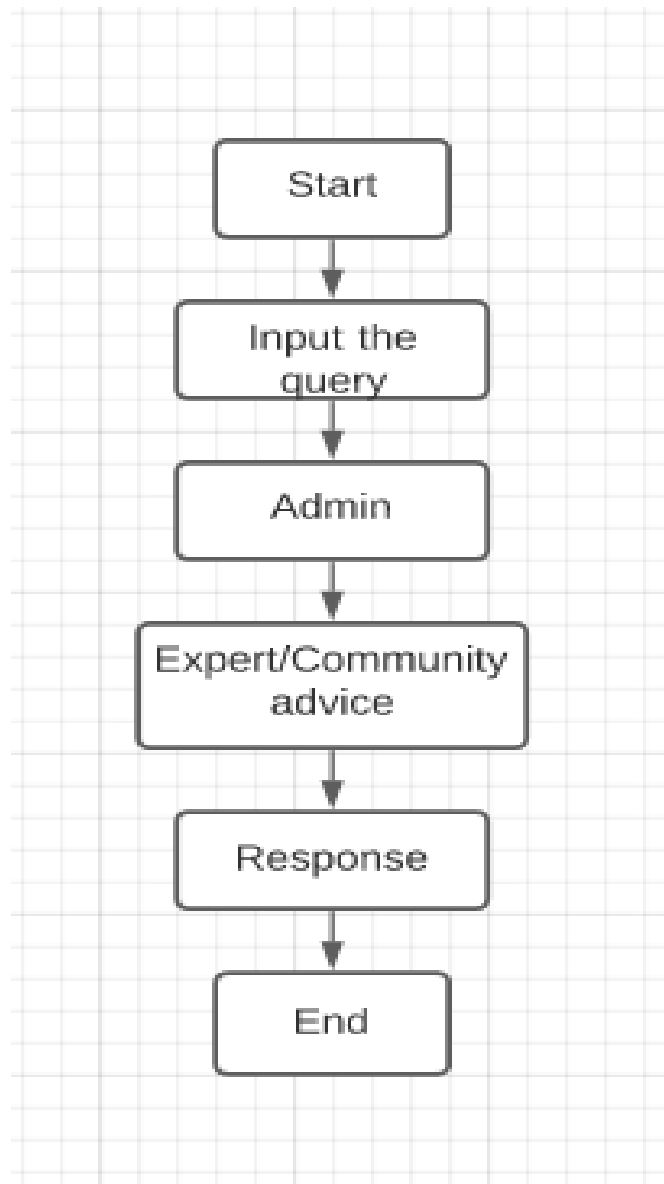


Fig 3.6:- Class Diagram (Reference)

b. Activity Diagram**Fig 3.7:- Activity Flow Diagram**

c. Sequence Diagram

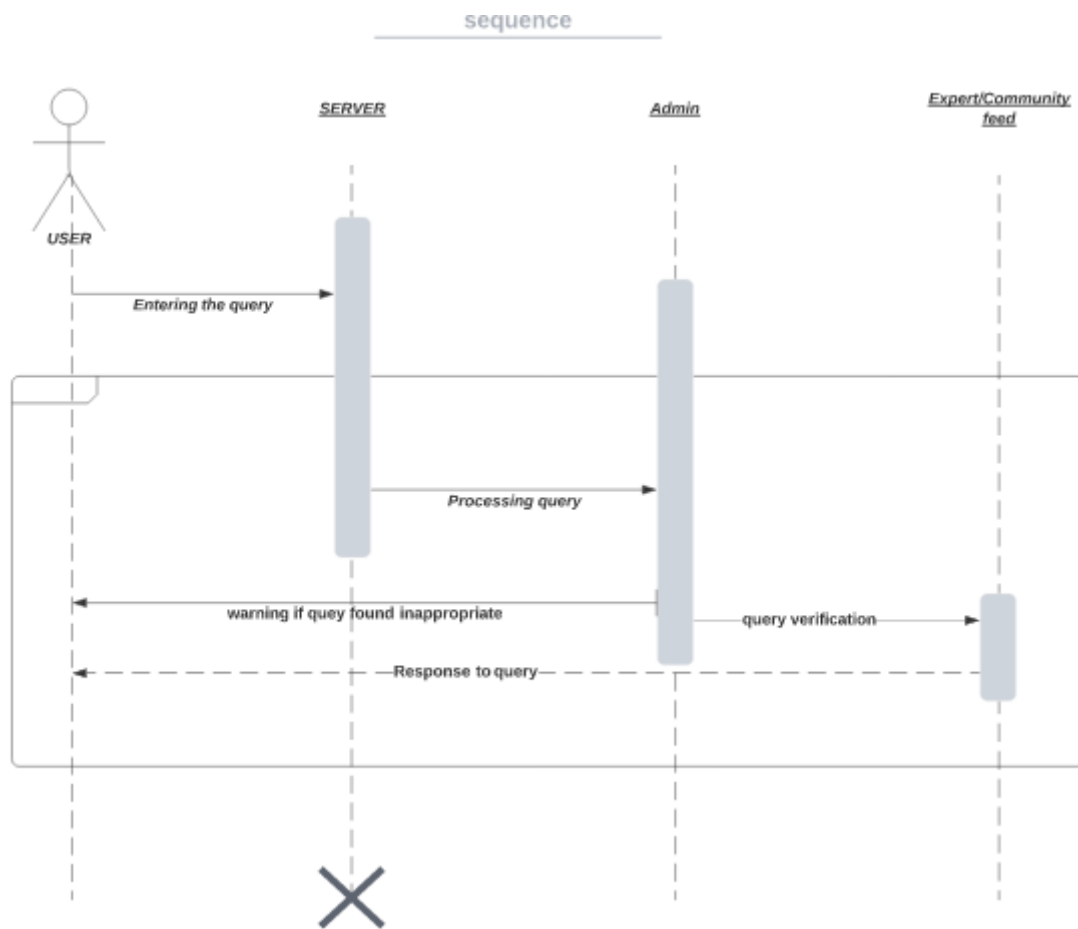


Fig 3.8:- Sequence Diagram

3.4 Project Schedule

Sr. No	Task Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Requirment Gathering	■								
2	Literature survey		■							
3	Methamatical modelling		■							
4	Feasibility Testing		■							
5	UML Diagrams			■						
6	Design			■						
7	GUI Design				■					
8	Functionality Implementation					■	■	■	■	
9	Testing								■	■
10	Reporting									■

Fig 3.9:- Project Schedule Diagram

CHAPTER 4:

METHODOLOGY

CHAPTER 4:

METHODOLOGY

1.1 Methodology: SDLC Activities

SDLC provides a series of steps to be followed to design and develop a software product efficiently. SDLC framework includes the following step:

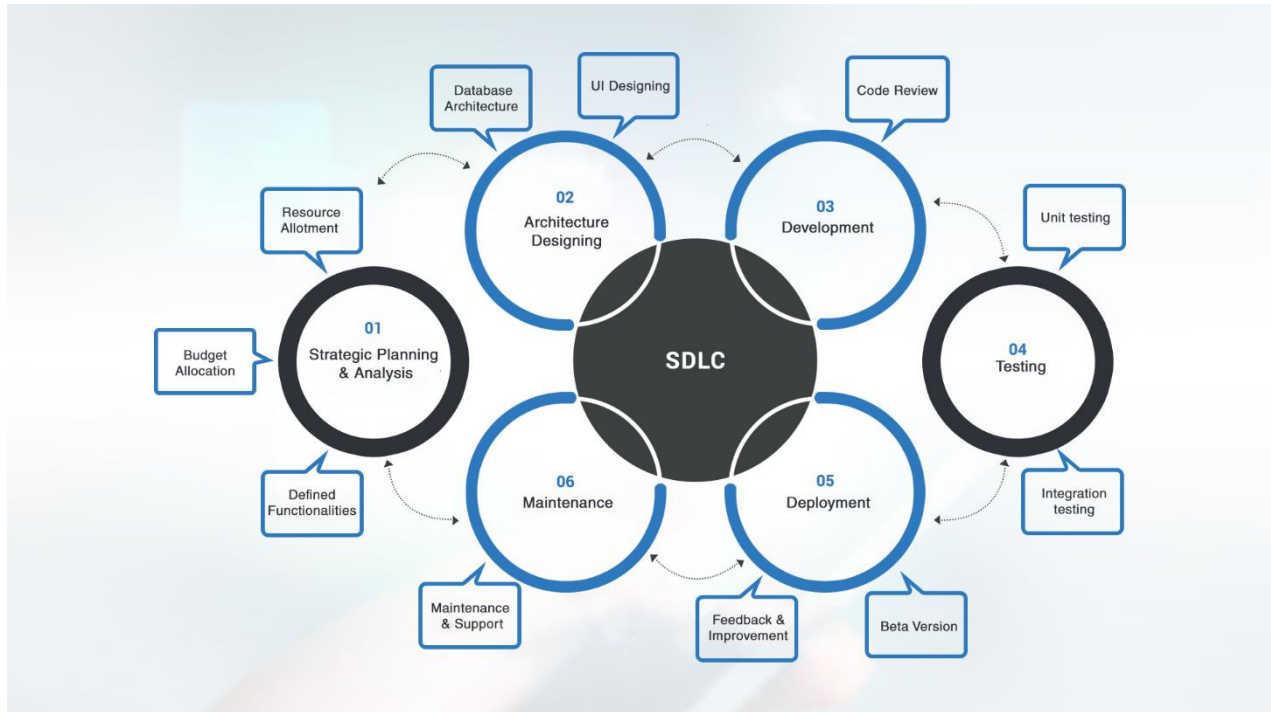


Fig 4.1:- SDLC Diagram

1. Requirement Gathering:

This step onwards the software development team works to carry on the project. The team holds discussions with various stakeholders from problem domain and tries to bring out as much information as possible on their requirements. The requirements are contemplated and segregated into user requirements, system requirements and functional requirements. The requirements are collected using a number of practices as given –

- studying the existing or obsolete system and software,
- conducting interviews of users and developers,
- referring to the database or collecting answers from the questionnaires.

2. Feasibility Study:

After requirement gathering, the team comes up with a rough plan of software process. At this step the team analyze if a software can be made to fulfill all requirements of the user and if there is any possibility of software being no more useful. It is found out, if the project is financially, practically and technologically feasible for the organization to take up. There are many algorithms available, which help the developers to conclude the feasibility of a software project.

3. System Analysis:

At this step the developers decide a roadmap of their plan and try to bring up the best software model suitable for the project. System analysis includes Understanding of software product limitations, learning system related problems or changes to be done in existing systems beforehand, identifying and addressing the impact of project on organization and personnel etc. The project team analyze the scope of the project and plans the schedule and resources accordingly.

4. Software Design:

Next step is to bring down whole knowledge of requirements and analysis on the desk and design the software product. The inputs from users and information gathered in requirement gathering phase are the inputs of this step. The output of this step comes in the form of two designs; logical design and physical design. Engineers produce meta-data and data dictionaries, logical diagrams, data-flow diagrams and in some cases pseudo codes.

5. Coding:

This step is also known as programming phase. The implementation of software design starts in terms of writing program code in the suitable programming language and developing error-free executable programs efficiently.

6. Testing:

An estimate says that 50% of whole software development process should be tested. Errors may ruin the software from critical level to its own removal. Software testing is done while coding by the developers and thorough testing is conducted by testing experts at various levels of code such as module testing, program testing, product testing, in-house testing and testing the product at user's end. Early discovery of errors and their remedy is the key to reliable software.

7. Integration:

Software may need to be integrated with the libraries, databases and other program(s). This stage of SDLC is involved in the integration of software with outer world entities.

8. Implementation:

This means installing the software on user machines. At times, software needs post-installation configurations at user end. Software is tested for portability and adaptability and integration related issues are solved during implementation.

9. Operation and Maintenance:

This phase confirms the software operation in terms of more efficiency and less errors. If required, the users are trained on, or aided with the documentation on how to operate the software and how to keep the software operational. The software is maintained timely by updating the code according to the changes taking place in user end environment or technology. This phase may face challenges from hidden bugs and real-world unidentified problems.

10. Deployment:

As time elapses, the software may decline on the performance front. It may go completely obsolete or may need intense upgradation. Hence a pressing need to eliminate a major portion of the system arises. This phase includes archiving data and required software components, closing down the system, planning disposition activity and terminating system at appropriate end-of-system time.

1.2 Risk Management:



Fig 4.2:- Risk Management Diagram

1. Identify Risk:

Risk identification requires knowledge of the organization, the market in which it operates, the legal, social, economic, political, and climatic environment in which it does its business, its financial strengths and weaknesses, its vulnerability to unplanned losses, the manufacturing processes, and the management systems and business mechanism by which it operates. Any failure at this stage to identify risk may cause a major loss for the organization. Risk identification provides the foundation of risk management.

2. Access Risk:

Once risks have been identified, they must then be assessed as to their potential severity of loss and to the probability of occurrence. These quantities can be either simple to measure, in the case of the value of a lost building, or impossible to know for sure in the case of the probability of an unlikely event occurring. Therefore; In the assessment process, it is critical to making the best-educated guesses possible in order to properly prioritize the implementation of the risk management plan. The fundamental difficulty in risk assessment is determining the rate of occurrence since

statistical information is not available on all kinds of past incidents. Furthermore; Evaluating the severity of the consequences (impact) is often quite difficult for immaterial assets. Asset valuation is another question that needs to be addressed.

3. Control Risk:

Risk can be controlled either by avoidance or by controlling losses. Avoidance implies that either a certain loss exposure is not acquired or an existing one is abandoned. Loss control can be exercised in two ways. Control risk is very important in auditing as it can prevent the misstatement of financial information. However, when the control mechanism fails to detect fraud and error, the financial information is misstated, and investors get the wrong picture about a firm's financial condition.

4. Review Control:

Initial risk management plans will never be perfect. Practice, experience and actual loss results will necessitate changes in the plan and contribute information to allow possible different decisions to be made in dealing with the risks being faced.

Risk analysis results and management plans should be updated periodically. There are two primary reasons for this;

1. To evaluate whether the previously selected security controls are still applicable and effective, and,
2. To evaluate the possible risk level changes in the business environment. For example, information risks are a good example of the rapidly changing business environment.

CHAPTER 5:
DETAILS OF
DESIGN WORKING
AND PROCESSES

CHAPTER 5

DETAILS OF DESIGNS WORKING

AND PROCESSES

5.1 Wireframing of the Legal Talks:

What is Wireframing?

Wireframing is an important communication tool in any web or app project. It gives the client, developer, and designer an opportunity to walk through the structure of the website without getting side tracked by design elements such as colours and images. For me, I believe that building a simple wireframe will save time in the long run and ease the development process for the designer, developer, and client. The following is a list of some of the great benefits of wireframes:

1. Wireframes bring clarity to your projects, allowing you to work through all the interactions and layout needs.
2. Wireframes gets your client thinking about what their needs really are and helps them define their project goals and what their primary focus should be.
3. Having your wireframes handy can make it easier for you to communicate your ideas to your team and how your design would work with responsiveness in mind.
4. Wireframes can also help deliver the core message of your website more effectively and gather feedback at an early stage.
5. Wireframes gives the developer a clear picture of the elements that they will need to code. How should the layout adjust for smaller-sized devices? What is the hierarchy of the content? How does the navigation respond to smaller screens?
6. Wireframes help designer's layout many sections of the website, resulting in a more fluid creative process.

1) Homepage

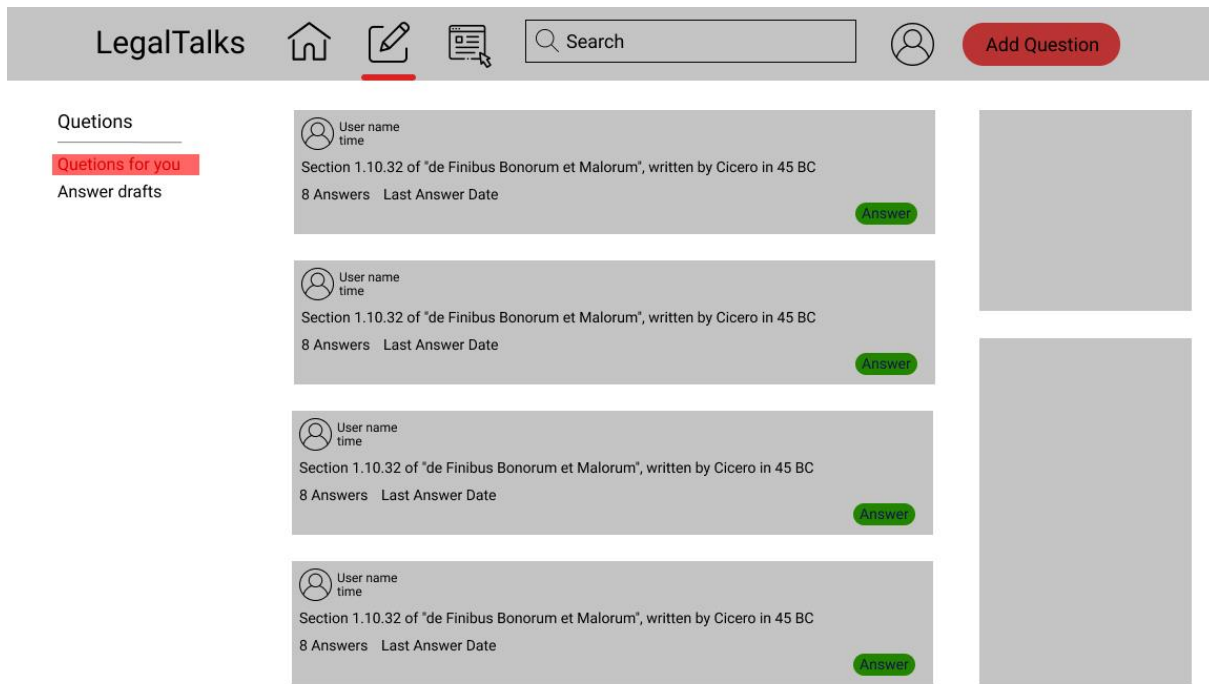


Fig 5.1:- Homepage Wireframe

2) Your Content Page

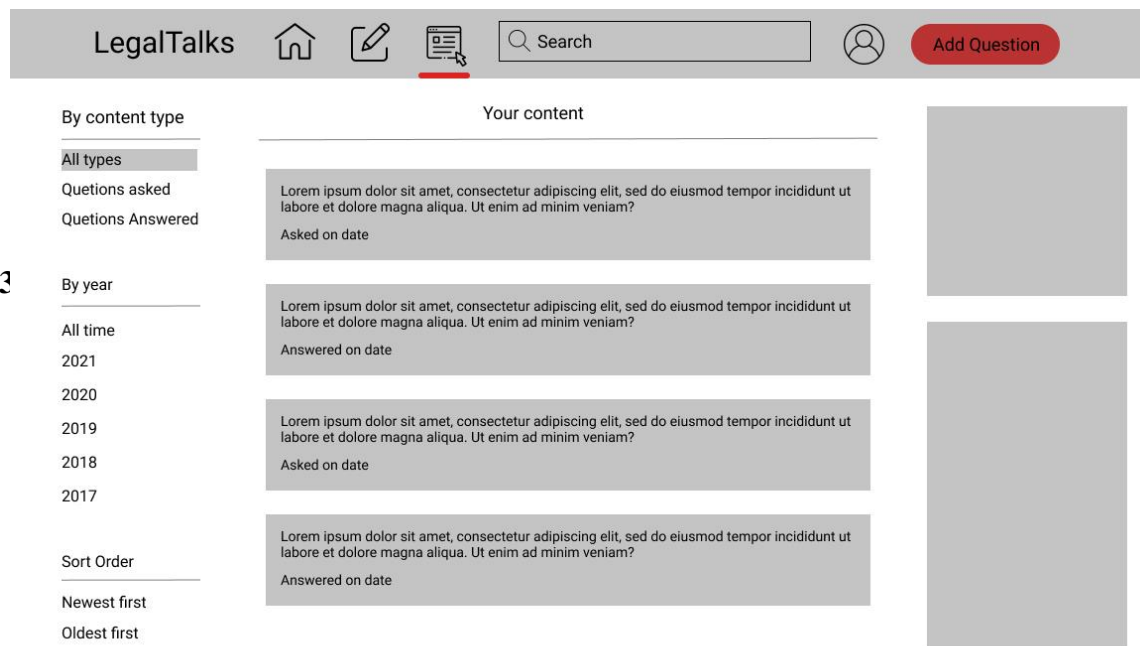


Fig 5.2:- Your Content page wireframe

3) Detailed Question View Page

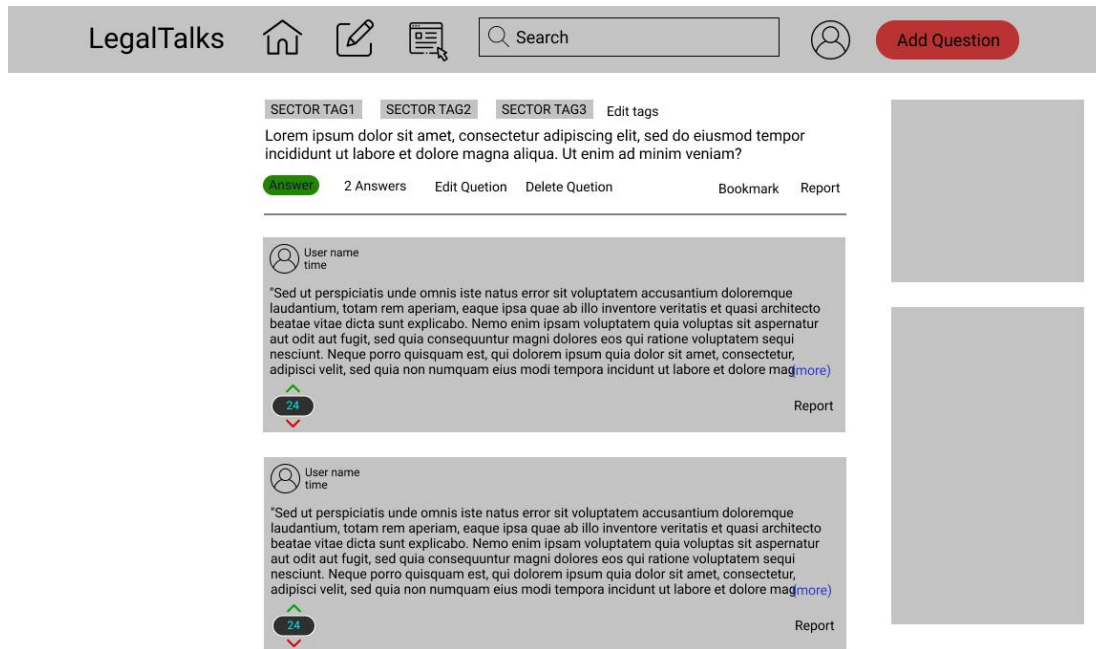


Fig 5.3:- Question Detailed View Page Wireframe

5) Add Question Page

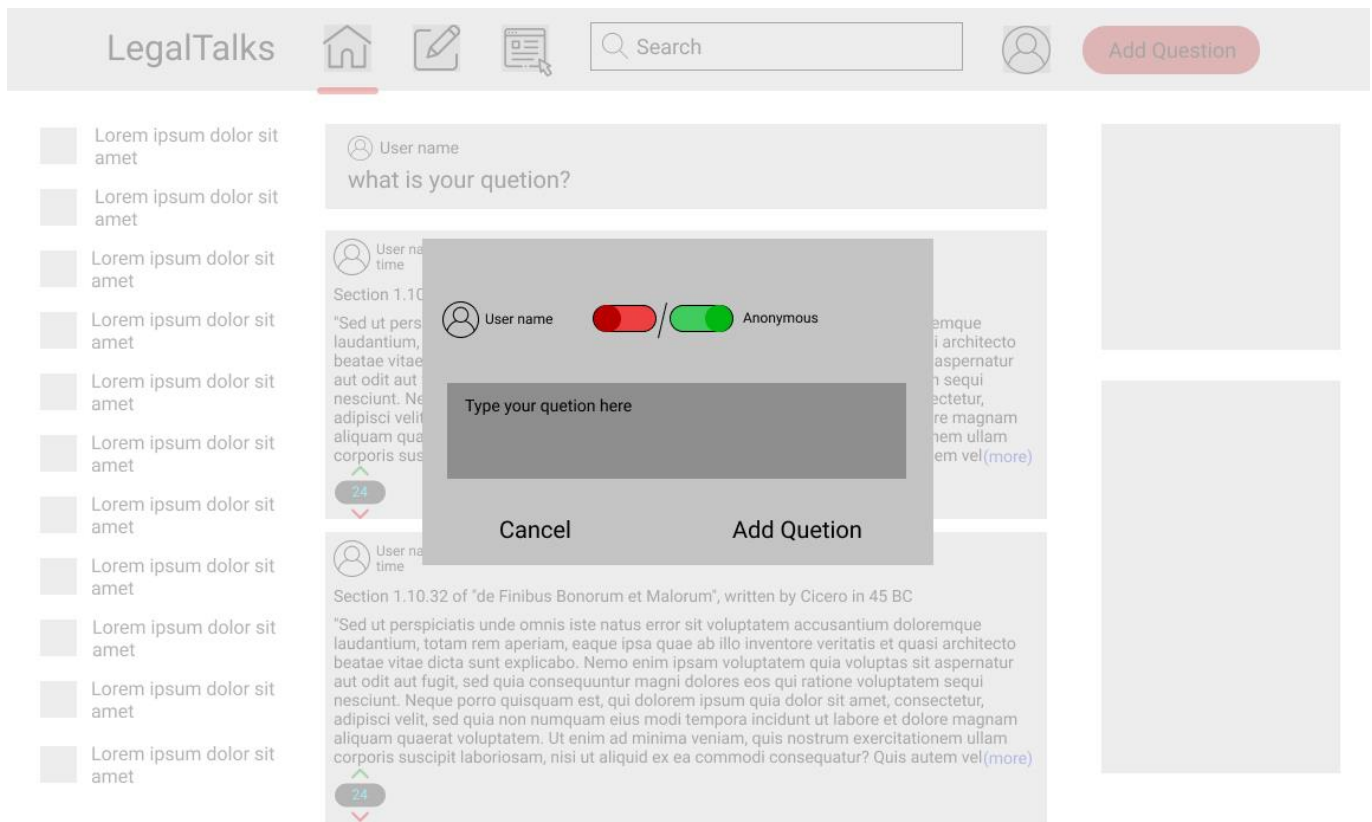


Fig 5.4:- Add Question Page Wireframe

6) Navigation Bar

User can use the Search bar present on the navigation bar searching for previously asked queries

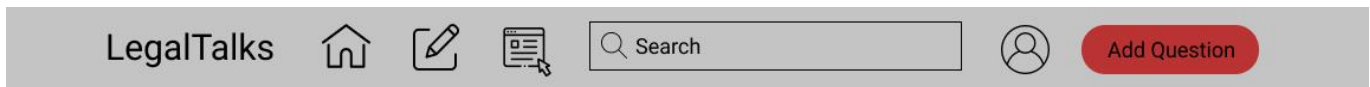


Fig 5.5:- Navbar Wireframe

7) Upvote/Downvote the Questions and Answers

There is a Counter at every question and answer which indicates the upvotes and downvotes. That counter has up arrow and a down arrow if user wants to upvote the answer user can press up arrow or if user wants to downvote the answer user can click on down arrow as per his choice. If the answer has more upvotes as compared to downvotes then counter will display positive number or else counter will display zero or negative which indicates the downvotes



Fig 5.6:- Upvote and Downvote Button wireframe

5.2 Programming/Scripting Languages and Frameworks Used:

1) HTML (Hyper Text Markup Language)



Fig 5.7:- HTML

The HyperText Markup Language, or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images

and other objects such as interactive forms may be embedded into the rendered page.

HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `` 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 do not display the HTML tags, but use them to interpret the content of the page.

2) CSS (Cascading Style Sheet)



Fig 5.8:- CSS

We have used CSS to design elements in our website which integrates with HTML file

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .CSS file which reduces complexity and repetition in the structural content as well as enabling the CSS file to be cached to improve the page load speed between the pages that share the file and its formatting.

3) Javascript



Fig 5.9:- Javascript

JavaScript often abbreviated as JS, is a programming language that conforms to the ECMAScript specification JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web Over 97% of websites use it client-side for web page behavior, often incorporating third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on the user's device.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM).

The ECMAScript standard does not include any input/output (I/O), such as networking, storage, or graphics facilities. In practice, the web browser or other runtime system provides JavaScript APIs for I/O.

4) Bootstrap



Fig 5.10:- Bootstrap

Bootstrap is a powerful front-end framework for faster and easier web development. It includes HTML and CSS based design templates for creating common user interface components like forms, buttons, navigations, dropdowns, alerts, modals, tabs, accordions, carousels, tooltips, and so on.

Bootstrap gives you the ability to create flexible and responsive web layouts with much less efforts.

Bootstrap was originally created by a designer and a developer at Twitter in mid-2010. Before being an open-sourced framework, Bootstrap was known as Twitter Blueprint.

There are lot more things you can do with Bootstrap.

- You can easily create responsive websites.
- You can quickly create multi-column layout with pre-defined classes.
- You can quickly create different types of form layouts.
- You can quickly create different variation of navigation bar.
- You can easily create components like accordions, modals, etc. without writing any JS code.
- You can easily create dynamic tabs to manage large amount of content.
- You can easily create tooltips and popovers to show hint text.
- You can easily create carousel or image slider to showcase your content.
- You can quickly create different types of alert boxes.

5) Django (Python Web Framework)



Fig 5.11:- Django Python Web Framework

Django is a high-level Python web framework that enables rapid development of secure and maintainable websites. Built by experienced developers, Django takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It is free and open source, has a thriving and active community, great documentation, and many options for free and paid-for support. Django helps you write software that is:

Complete

Django follows the "Batteries included" philosophy and provides almost everything developers might want to do "out of the box". Because everything you need is part of the one "product", it all works seamlessly together, follows consistent design principles, and has extensive and up-to-date documentation.

Versatile

Django can be (and has been) used to build almost any type of website — from content management systems and wikis, through to social networks and news sites. It can work with any client-side framework, and can deliver content in almost any format (including HTML, RSS feeds, JSON, XML, etc). The site you are currently reading is built with Django!

Secure

Django helps developers avoid many common security mistakes by providing a framework that has been engineered to "do the right things" to protect the website automatically. For example, Django provides a secure way to manage user accounts and passwords, avoiding common mistakes like putting session information in cookies where it is vulnerable (instead cookies just contain a key, and the actual data is stored in the database) or directly storing passwords rather than a password hash.

Scalable

Django uses a component-based “shared-nothing” architecture (each part of the architecture is independent of the others, and can hence be replaced or changed if needed). Having a clear

separation between the different parts means that it can scale for increased traffic by adding

hardware at any level: caching servers, database servers, or application servers. Some of the busiest sites have successfully scaled Django to meet their demands (e.g. Instagram and Disqus, to name just two).

Maintainable

Django code is written using design principles and patterns that encourage the creation of maintainable and reusable code. In particular, it makes use of the Don't Repeat Yourself (DRY) principle so there is no unnecessary duplication, reducing the amount of code. Django also promotes the grouping of related functionality into reusable "applications" and, at a lower level, groups related code into modules (along the lines of the Model View Controller (MVC) pattern).

6) jQuery Framework

iii.



Fig 5.11:- jQuery Framework

jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. It is free, open-source software using the permissive MIT License. As of May 2019, jQuery is used by 73% of the 10 million most popular websites. Web analysis indicates that it is the most widely deployed JavaScript library by a large margin, having at least 3 to 4 times more usage than any other JavaScript library.

jQuery's syntax is designed to make it easier to navigate a document, select DOM elements, create animations, handle events, and develop Ajax applications. jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library. This enables developers to create abstractions for low-level interaction and animation, advanced effects and high-level, themeable widgets. The modular approach to the jQuery library allows the creation of powerful dynamic web pages and Web applications.

5.3 Design and Functions of Legal Talks

Now Moving towards the Final Design of the Completed website.

1. Navbar

A navigation bar is a user interface element within a webpage that contains links to other sections of the website. In most cases, the navigation bar is part of the main website template, which means it is displayed on most, if not all, pages within the website. This means that no matter what page you are viewing, you can use the navigation bar to visit other sections of the website.

The navigation bar is an important element of a website's design since it allows users to quickly visit any section within the site. If you've ever visited a website without a navigation bar, you may have found it is difficult to locate the page you need. You may have also had to click "Back" several times in order to find a link to the next section you wanted to visit. Thankfully, web design has become more standardized in recent years and nearly every website now includes a navigation bar.

Navigation bar Contains Following Elements starting from left:

- Logo of Legal Talks
- Home Page nav
- Your Content nav
- Profile nav
- Add Question Button
- Search Bar
- Login and Signup options
- About Nav

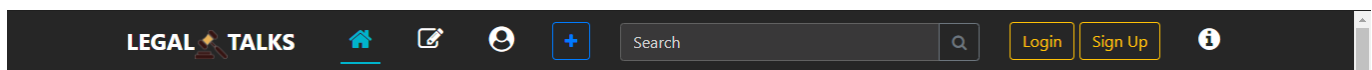


Fig 5.12:- Navbar

2. Question Card

Every Question has a separate card which will contain following

- Querier Info Profile Picture and Username
- Question asked date for example 18 May, 2021
- Category of the Question for example Business Law, Civil Law, Consumer Law etc.
- Question Title
- Question Detail
- Report Button which can be used report the question if user feels it is inappropriate in anyway.
- Upvote-Downvote button which can be a great indicator that this question helped people.
- Answer Button which can be used to answer the question
- Count of the answers the question has received.

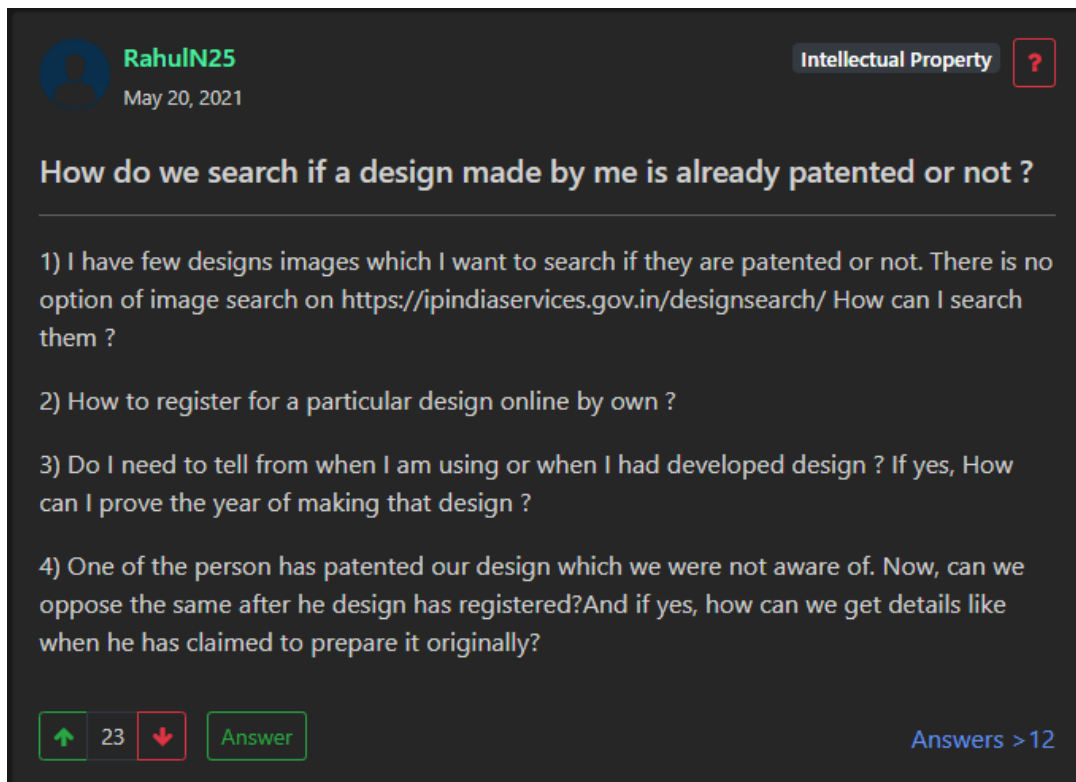


Fig 5.13:- Question Card

3. Homepage

A home page is a webpage that serves as the starting point of website. It is the default webpage that loads when you visit a web address that only contains a domain name. The home page is located in the root directory of a website. Most web server allow the home page to have one of several different filenames.

Homepage is the first page that user sees so it is the main page so it should look clean and user friendly.

Legal Talks Homepage contains:

- Navbar for easy navigation to all the pages of website
- What is your question card
- Question Card
- Filter Categories Section

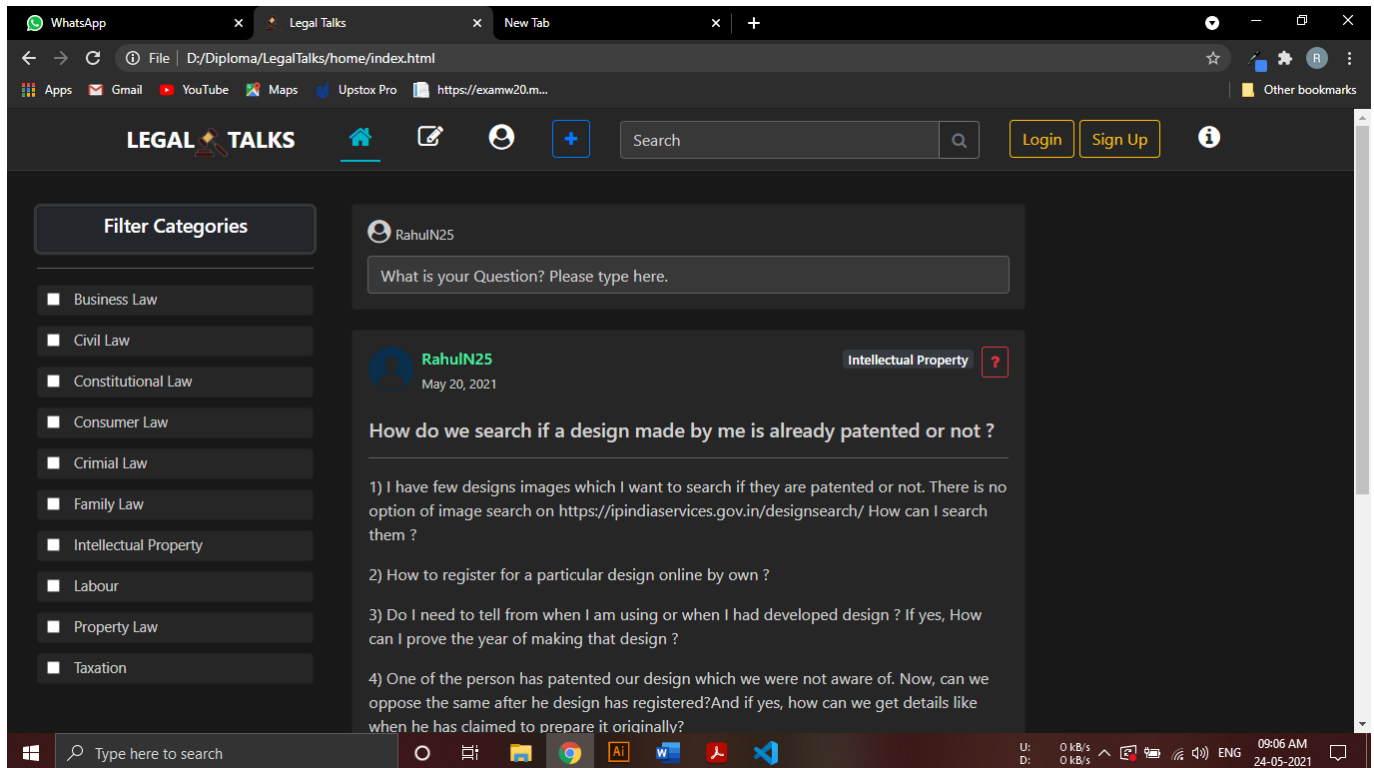


Fig 5.14:- Homepage

4. Filter Categories

Each Question has one category such as Business Law, Civil Law, Consumer Law, Criminal Law which can be used to filter the questions as the user wish

Filter Categories can be used to the select multiple categories at time for filtering the questions it is very useful for users who wants see the question related the only specific Law. By default it is collapsed so for viewing the categories user have press on the Filter Categories button.

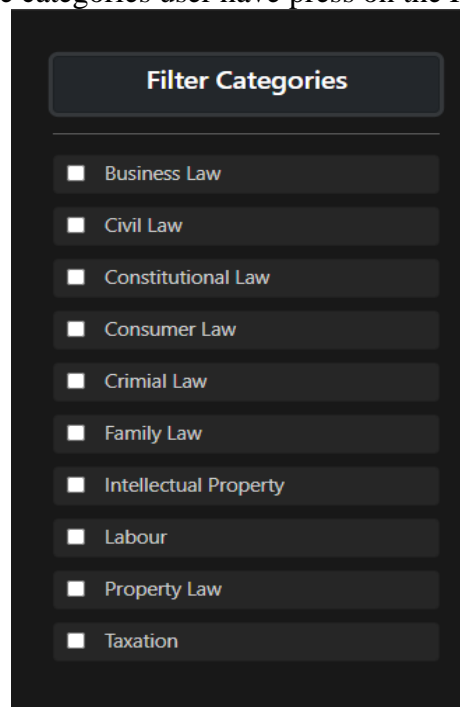


Fig 5.15:- Filter Categories

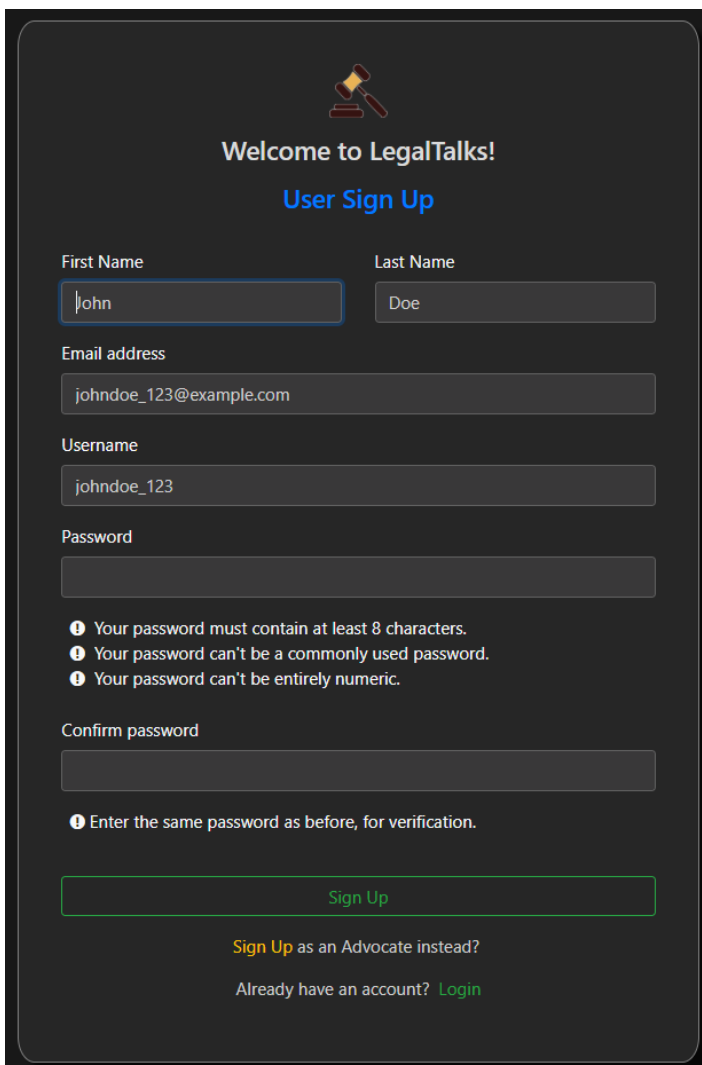
5. User Sign Up

A signup page (also known as a registration page) enables users and organizations to independently register and gain access to your system. It is common to have multiple signup pages depending on the types of people and organizations you want to register.

User Sign Up consists of two pages:

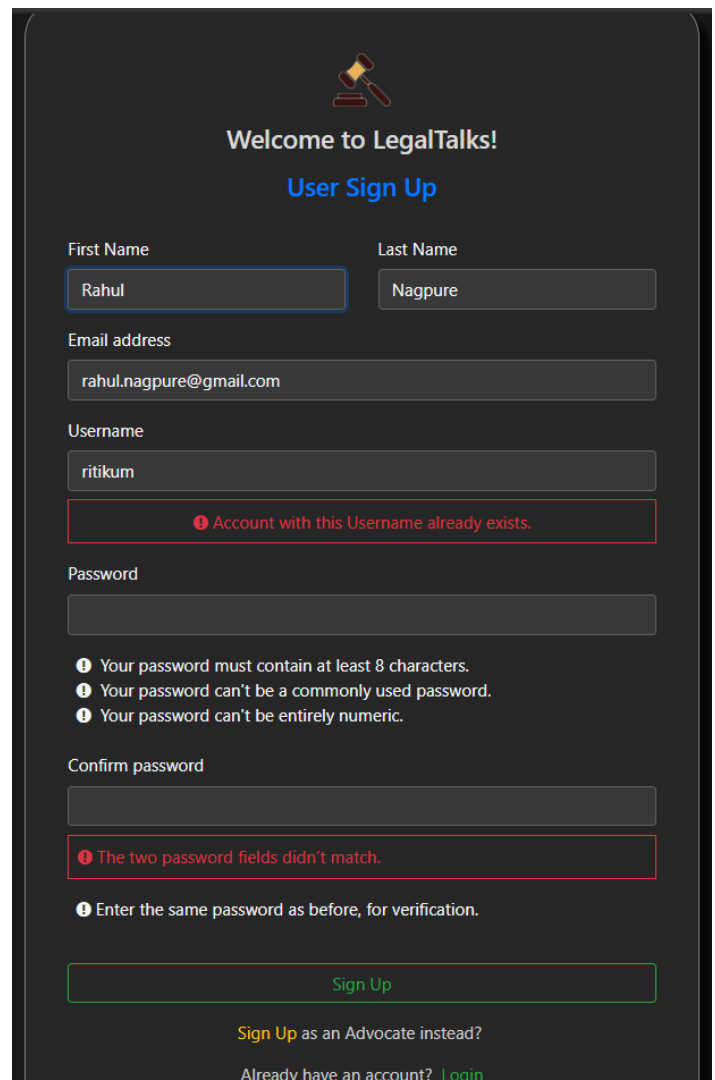
a) User Sign Up page

It Contains Fields such as First Name, Last Name, Email, Username, Password and Confirm password.



The image shows a dark-themed user sign-up form. At the top, there is a gavel icon and the text "Welcome to LegalTalks!" followed by "User Sign Up" in blue. The form contains several input fields: "First Name" (with "John" entered), "Last Name" (with "Doe" entered), "Email address" (with "johndoe_123@example.com" entered), "Username" (with "johndoe_123" entered), "Password", and "Confirm password". Below the password field, there are three error messages: "Your password must contain at least 8 characters.", "Your password can't be a commonly used password.", and "Your password can't be entirely numeric." Below the confirm password field, there is a message: "Enter the same password as before, for verification." At the bottom, there is a green "Sign Up" button, a link "Sign Up as an Advocate instead?", and a link "Already have an account? Login".

Fig 5.16:- User Sign Up page



The image shows the same dark-themed user sign-up form as Fig 5.16, but with validation errors. The "First Name" field contains "Rahul" and the "Last Name" field contains "Nagpure". The "Email address" field contains "rahul.nagpure@gmail.com". The "Username" field contains "ritikum" and has a red error message: "Account with this Username already exists." The "Password" field is empty. The "Confirm password" field is empty and has a red error message: "The two password fields didn't match." Below the confirm password field, there is a message: "Enter the same password as before, for verification." At the bottom, there is a green "Sign Up" button, a link "Sign Up as an Advocate instead?", and a link "Already have an account? Login".

Fig 5.17:- User Sign Up page with validation errors

The Validation can't be by passed by doing changes in html and css using the browser dev-tools. The Validation is at the server side of the website so It cant be bypassed so it secure.

After Filling up all the correct credentials here and click on Sign Up Button then user will be redirected to the Profile Detail page.

b) Details Page

This page will contain the extra details of user such as Gender, Date of Birth and Profile. But the Profile picture Field is optional.

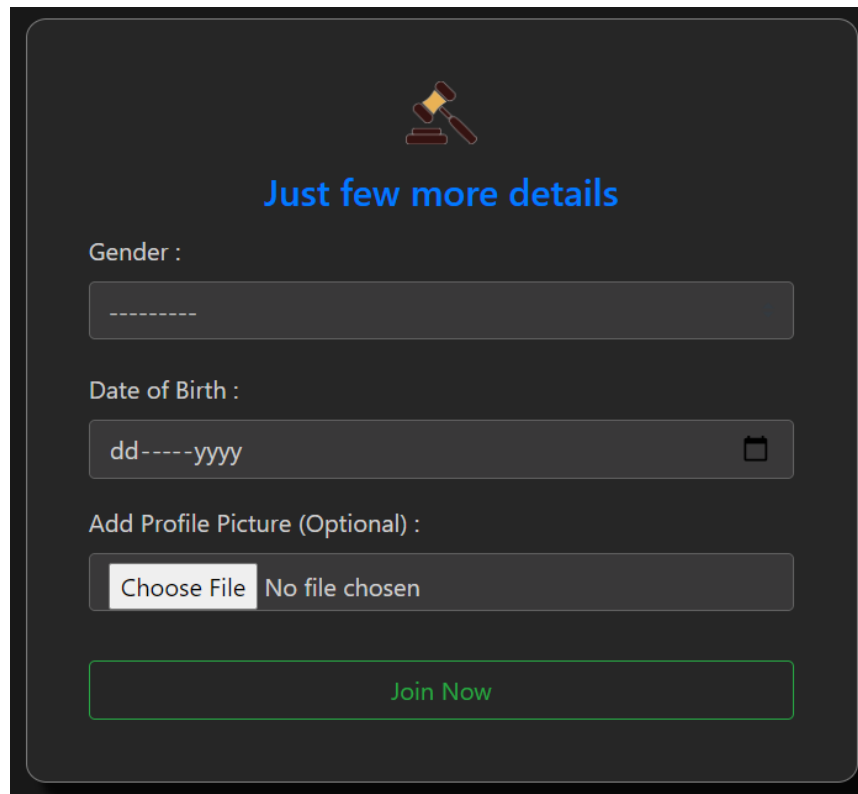
The image shows a dark-themed user profile details page. At the top, there is a gavel icon and the text "Just few more details" in blue. Below this, there are three input fields: "Gender :" with a text input field containing "-----"; "Date of Birth :" with a date picker input field showing "dd-----yyyy" and a calendar icon; and "Add Profile Picture (Optional) :" with a file upload button labeled "Choose File" and "No file chosen". At the bottom, there is a green "Join Now" button.

Fig 5.18:- User Profile details page

7) Lawyer Sign Up

Lawyer must have cleared the Bar Examination for Signing Up on the Platform. We have read only access to the Bar Enrolment number and their connected email from the Bar Council of India.

The Lawyer just have to enter their Bar Enrolment Number and the email verification code will be sent to their linked email ID so that we can verify that lawyer is not using anyone else's Bar number and trying to Sign Up into the platform.

Lawyer Sign Up consists 4 pages:

a) Bar Enrolment Number page

On this page the lawyer has to enter their valid Bar Enrolment Number. After Entering a valid a Bar Enrolment Number. The Lawyer will redirected to the Email verification page

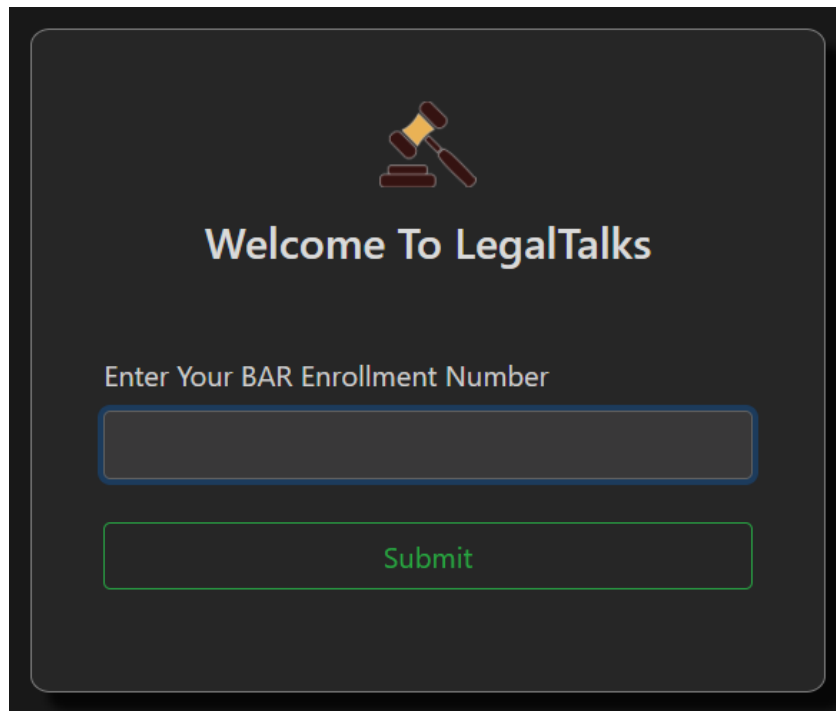
A dark-themed mobile app interface for LegalTalks. At the top center is a golden gavel icon. Below it, the text "Welcome To LegalTalks" is displayed in a white, sans-serif font. Underneath the welcome message is the instruction "Enter Your BAR Enrollment Number" in a smaller white font. This is followed by a wide, dark rectangular input field with a thin blue border. Below the input field is a green rectangular button with the word "Submit" in white text.

Fig 5.19 Bar Enrolment Number page

b) Verification Code sent to Email

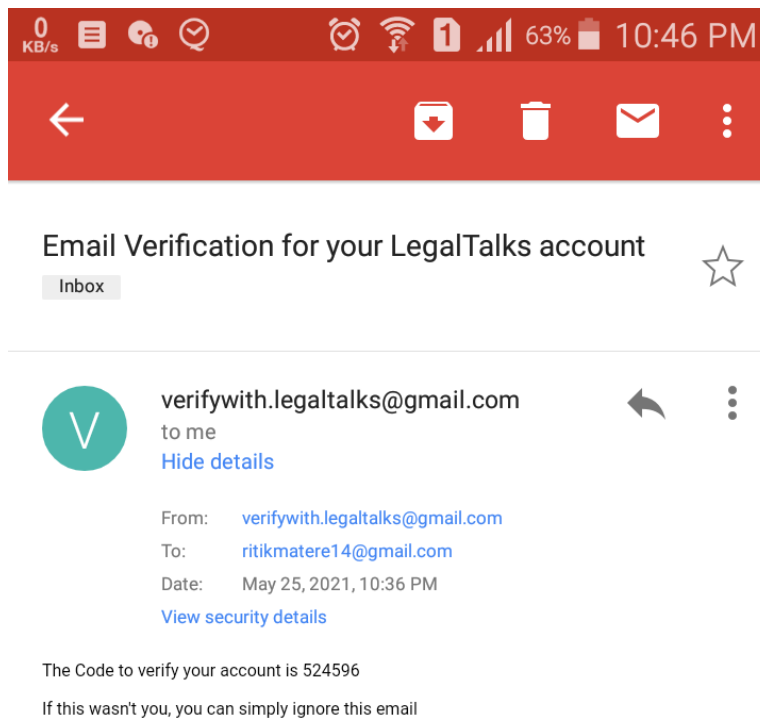


Fig 5.20:- Code sent the Email

c) Email Verification Page

After Entering the Valid Bar Enrolment Number the user will receive a 6 digit numeric code on the email which is linked to the Bar Enrolment Number. User have to Enter that code to get verified.

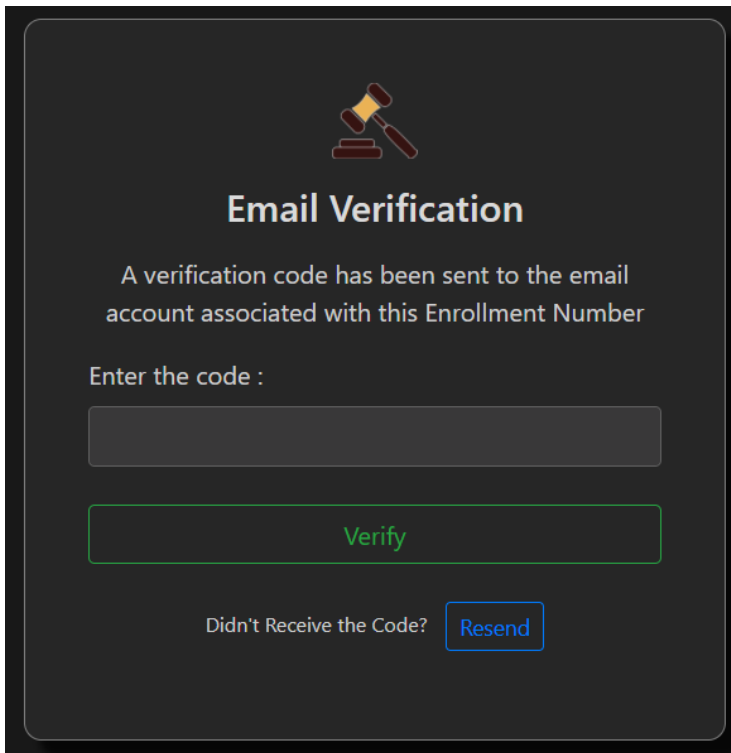
A screenshot of the 'Email Verification' page. At the top, there is a gavel icon. Below it, the title 'Email Verification' is centered. The text 'A verification code has been sent to the email account associated with this Enrollment Number' is displayed. Below this, the prompt 'Enter the code :' is followed by a text input field. Under the input field is a green 'Verify' button. At the bottom, there is a link 'Didn't Receive the Code?' next to a blue 'Resend' button.

Fig 5.21:- Email Verification page

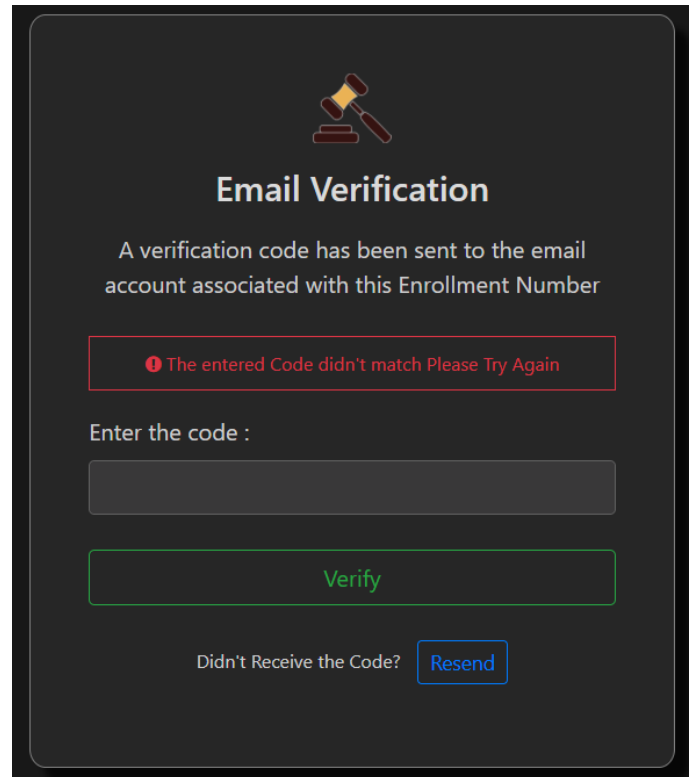
A screenshot of the 'Email Verification' page showing an error. At the top, there is a gavel icon. Below it, the title 'Email Verification' is centered. The text 'A verification code has been sent to the email account associated with this Enrollment Number' is displayed. Below this, a red error message box contains the text '❗ The entered Code didn't match Please Try Again'. Below the error box, the prompt 'Enter the code :' is followed by a text input field. Under the input field is a green 'Verify' button. At the bottom, there is a link 'Didn't Receive the Code?' next to a blue 'Resend' button.

Fig 5.22:- Email Verification Validation Error


This verification is to check that you are using your own Bar Enrolment Number for Signing Up to the platform. Otherwise user or other lawyer can somehow obtain the Bar number of verified lawyer then use it sign up to the platform. That will be the misuse of Identity. So to avoid it we have Email Verification process.

c) Advocate Sign Up Page

After Email Verification the lawyer will get Advocate Sign Up Page where he/she have Enter Details:

First Name, Last Name, Username, Password, Confirm Password the Email will be automatically fetched from the server side so the user don't have to re-enter the email id but he don't want to use that email id for Signing up he/she can change it.

After Entering valid credentials and clicking on Sign Up Button the Lawyer will be redirected to the Profile Details Page.



Welcome to LegalTalks!

Advocate Sign Up

First Name

Last Name

Email address

Username

Password

- ❗ Your password must contain at least 8 characters.
- ❗ Your password can't be a commonly used password.
- ❗ Your password can't be entirely numeric.


Confirm password

❗ Enter the same password as before, for verification.

[Sign Up](#)

Already have an account? [Login](#)

Fig 5.23:- Lawyer Sign Up page



Welcome to LegalTalks!

Advocate Sign Up

First Name

Last Name

Email address

Username

Password

- ❗ Your password must contain at least 8 characters.
- ❗ Your password can't be a commonly used password.
- ❗ Your password can't be entirely numeric.

Confirm password

❗ The two password fields didn't match.

❗ Enter the same password as before, for verification.

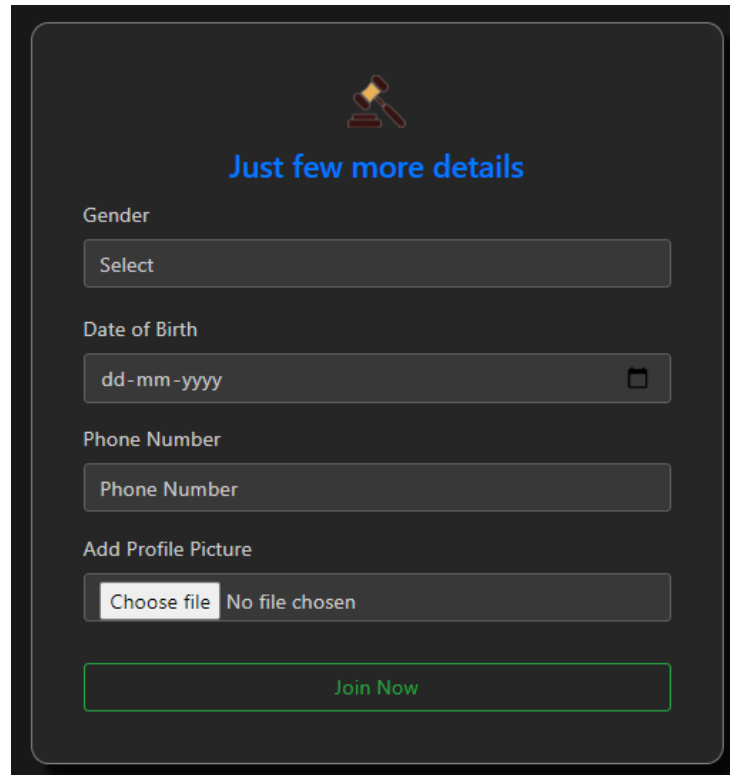
[Sign Up](#)

Already have an account? [Login](#)

Fig 5.24:- Lawyer Sign Up Validation Errors

d) Lawyer Profile Details page

This is the last page of Lawyer Sign Up here you just have to enter profile details:
Gender, Date of Birth, Phone Number and Profile Picture
The Profile Picture is Optional.

The image shows a dark-themed user interface for a lawyer's profile details. At the top, there is a small icon of a gavel and the text "Just few more details" in blue. Below this, there are four input fields: "Gender" with a "Select" dropdown, "Date of Birth" with a "dd-mm-yyyy" placeholder and a calendar icon, "Phone Number" with a "Phone Number" placeholder, and "Add Profile Picture" with a "Choose file" button and "No file chosen" text. At the bottom, there is a green "Join Now" button.

Just few more details

Gender

Select

Date of Birth

dd-mm-yyyy

Phone Number

Phone Number

Add Profile Picture

Choose file No file chosen

Join Now

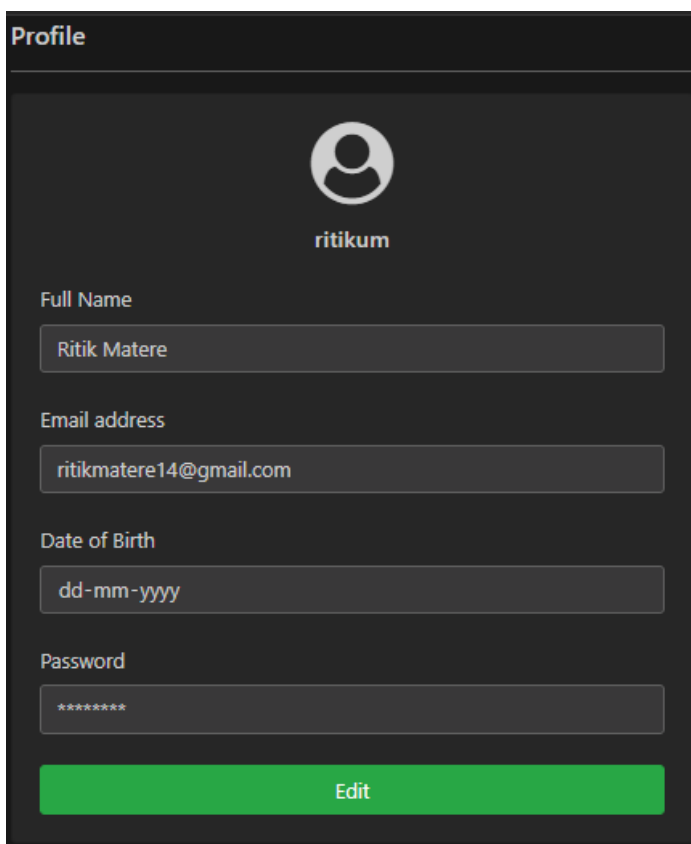
Fig 5.25:- Lawyer Profile Details page

8) User Profile

User Profile has two page one is View Page and Other is Edit Page

On The View Page User can just view their details and cannot edit it Editing/Updating the details can be done by going to the Edit page by clicking the Edit Button it will redirect the user to the edit page. User can edit various details such as username, email, phone number, password, and profile picture

In Edit profile page the details of the user will be fetched in input boxes. And then user can only update the detail by editing the fields. After Editing the details user have to click on the Update Button to save the details.

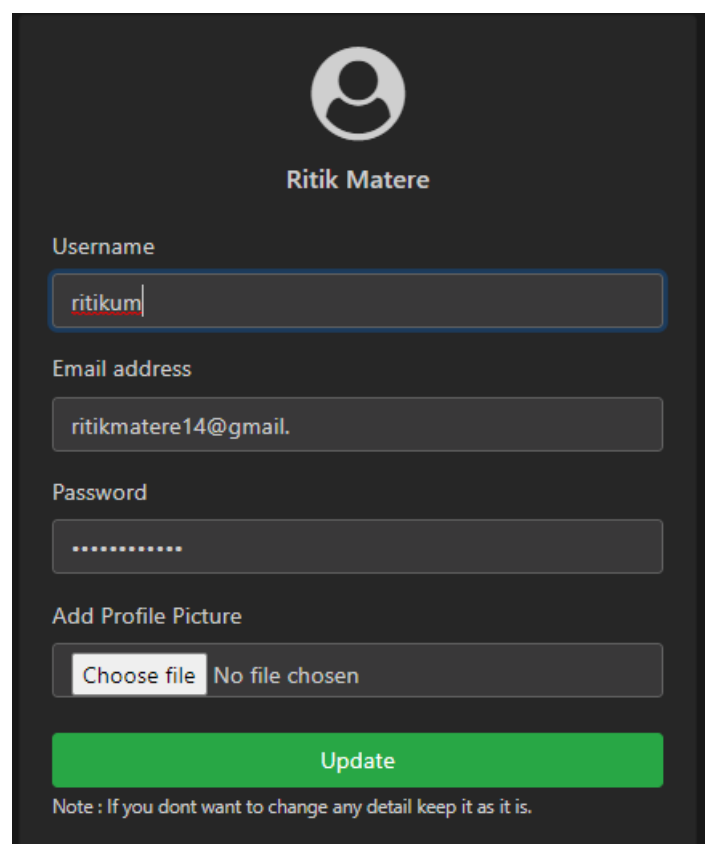


The 'Profile' page displays a user's information in a read-only format. At the top, there is a profile picture placeholder and the username 'ritikum'. Below this, the following details are listed with corresponding input fields:

- Full Name:** Ritik Matere
- Email address:** ritikmatere14@gmail.com
- Date of Birth:** dd-mm-yyyy
- Password:** *****

A green 'Edit' button is located at the bottom of the form.

Fig 5.26:- User Readonly Profile page



The 'Update Profile' page allows a user to modify their details. It features a profile picture placeholder and the username 'Ritik Matere'. The form includes the following fields:

- Username:** ritikum
- Email address:** ritikmatere14@gmail.
- Password:**

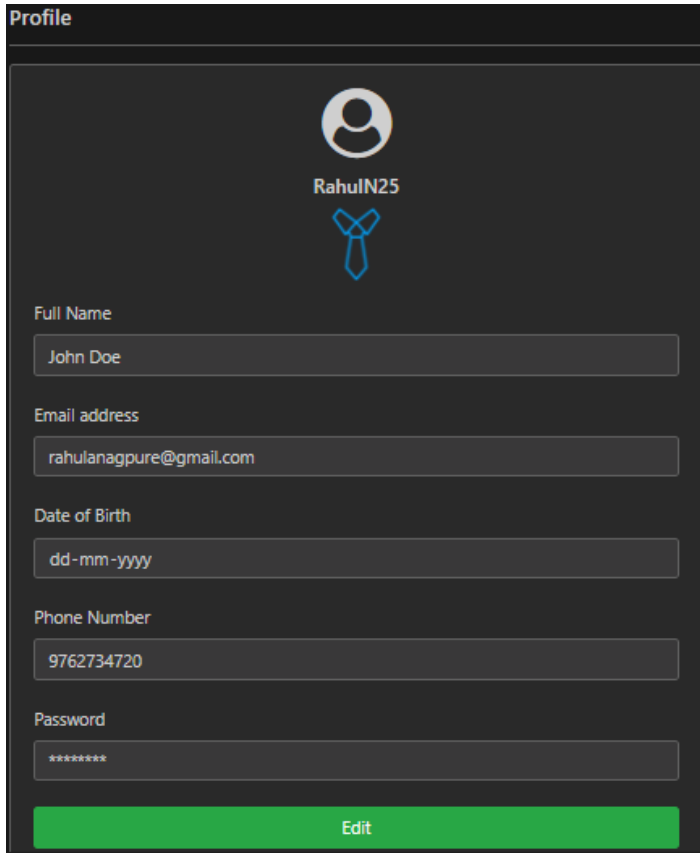
Below the password field is a section for 'Add Profile Picture' with a 'Choose file' button and the text 'No file chosen'. A green 'Update' button is at the bottom. A note at the very bottom states: 'Note : If you dont want to change any detail keep it as it is.'

Fig 5.27:- User Update Profile page

9) Lawyer Profile

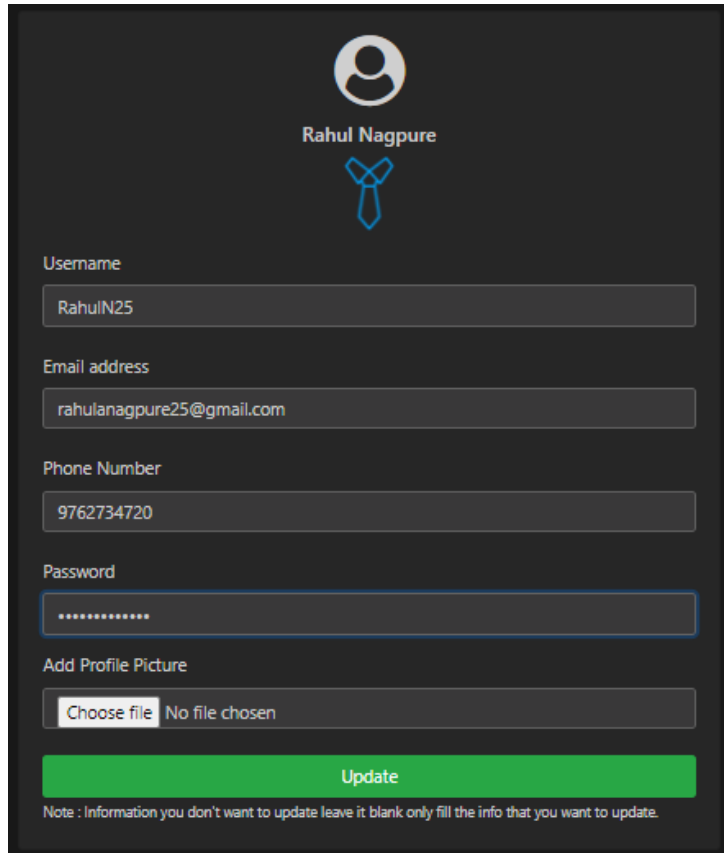
Lawyer can view their profile by clicking on the profile nav from the navbar. Lawyer Profile also has two pages one is readonly and other is for updating the details Lawyer profile has a icon that indicates that they are a verified lawyer.

Lawyer can edit details such as username, email address, phone number, password and profile image.



The screenshot shows a dark-themed profile page titled "Profile". At the top, there is a profile picture placeholder and the username "RahulN25" with a blue verified lawyer icon (a tie). Below this, there are several form fields for profile details: "Full Name" (John Doe), "Email address" (rahulanagpure@gmail.com), "Date of Birth" (dd-mm-yyyy), "Phone Number" (9762734720), and "Password" (*****). At the bottom, there is a green "Edit" button.

Fig 5.28:- Lawyer Readonly Profile page



The screenshot shows a dark-themed profile page for updating details. At the top, there is a profile picture placeholder and the name "Rahul Nagpure" with a blue verified lawyer icon (a tie). Below this, there are several form fields for profile details: "Username" (RahulN25), "Email address" (rahulanagpure25@gmail.com), "Phone Number" (9762734720), "Password" (*****), and "Add Profile Picture" (Choose file | No file chosen). At the bottom, there is a green "Update" button and a note: "Note : Information you don't want to update leave it blank only fill the info that you want to update."

Fig 5.29:- Lawyer Update Profile page

10) Your Content Page

Your content page contains all the questions and answers asked and answered by the user in one place. User can use the By Content Type Filter to sort the content according to their need they can sort the questions and answers such as All Types, Questions asked, Answers. User can also filter question as Newest First and Oldest First.

From Your Content page user can Edit and Delete their questions and answers by simply clicking on the Edit and Delete Button.

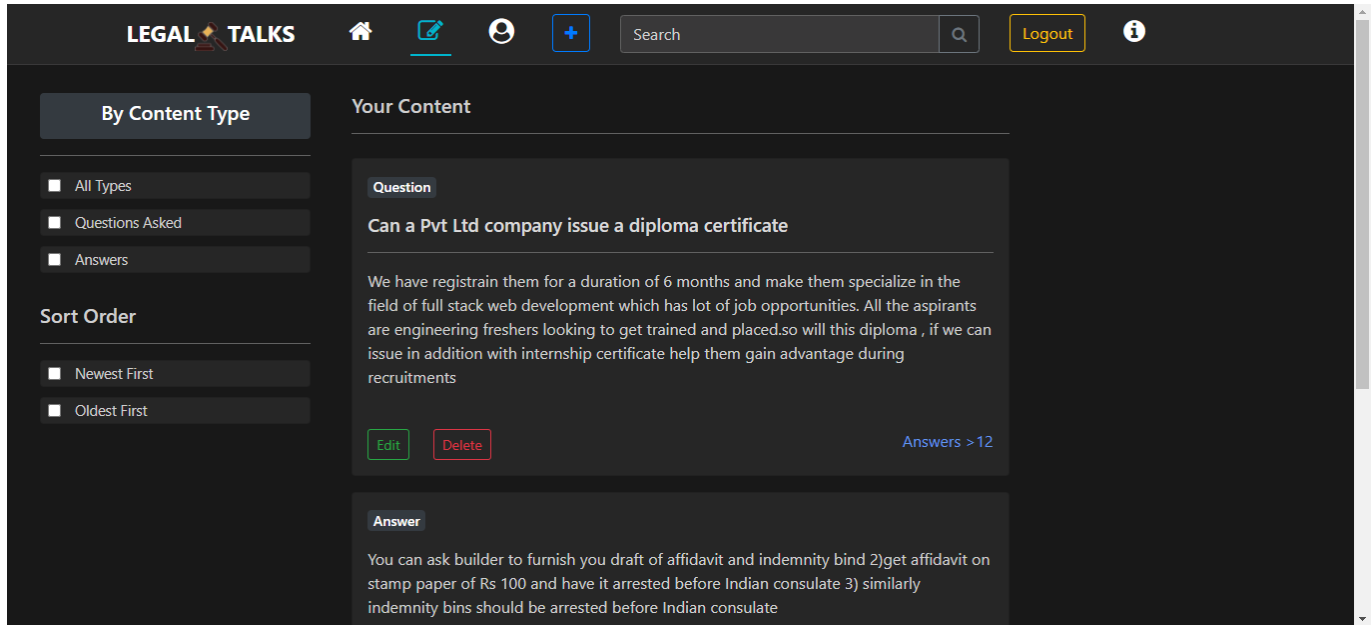


Fig 5.30:- Your Content Page

11) Question Detail View Page

By clicking on any question from homepage or your content page you will go to the detail view of that question. In which at the top there will be question card of that question and after there will be answers given by various lawyers.

On the question card there will be upvote and downvote buttons, Answer Button and report Button. If the question is he asked by you then you will also get Edit and Delete buttons there.

On the Answer card you will also have upvote and downvote buttons, and if the answer is given by you then you will also get Edit and Delete Button.

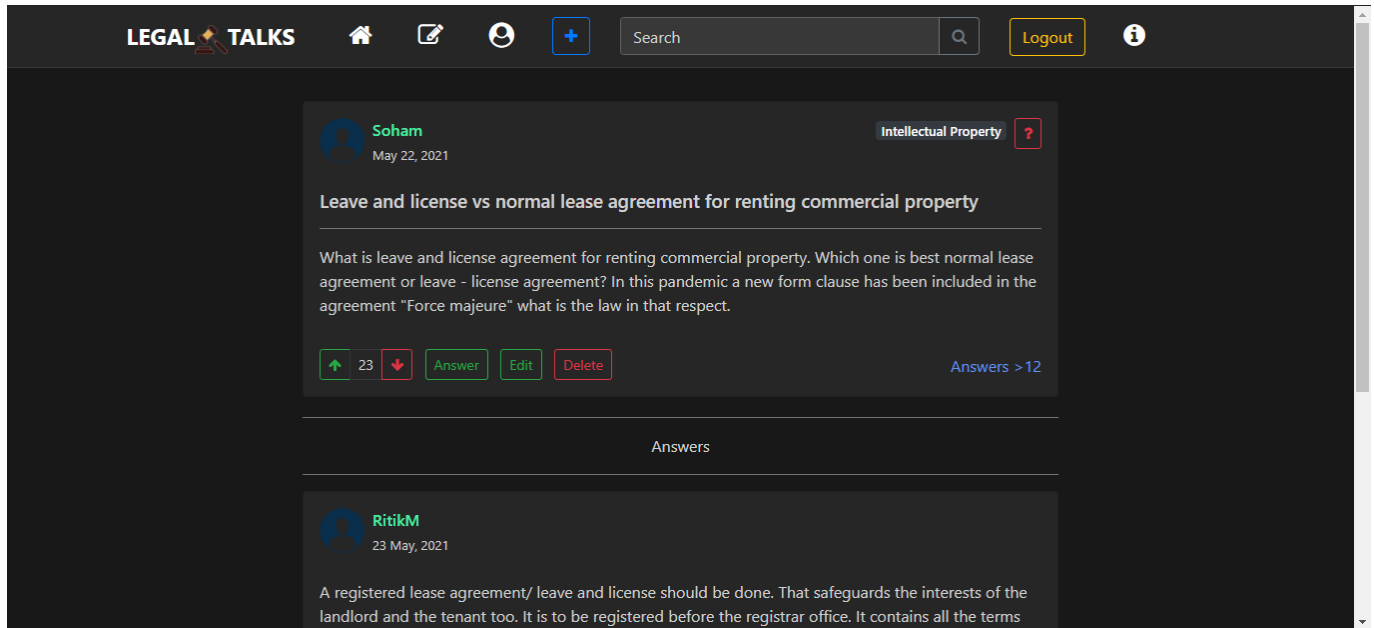


Fig 5.31:- Question Detail View Page

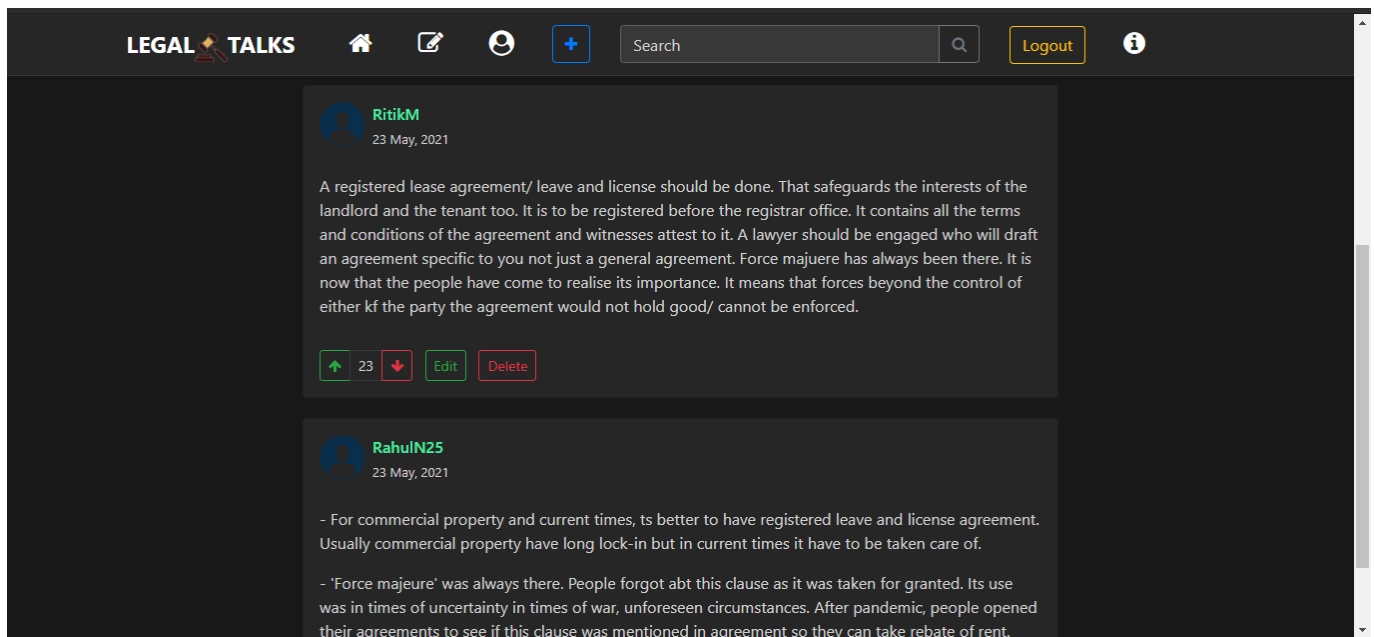


Fig 5.32:- Answer Cards View

12) Question Search

Search on the navigation bar can be used to search for the previously asked questions. You have to Enter the keywords and click on search icon then matching question will be displayed and when you will click on the card you will be redirected to the detail view of that question.



Fig 5.33:- Search Bar

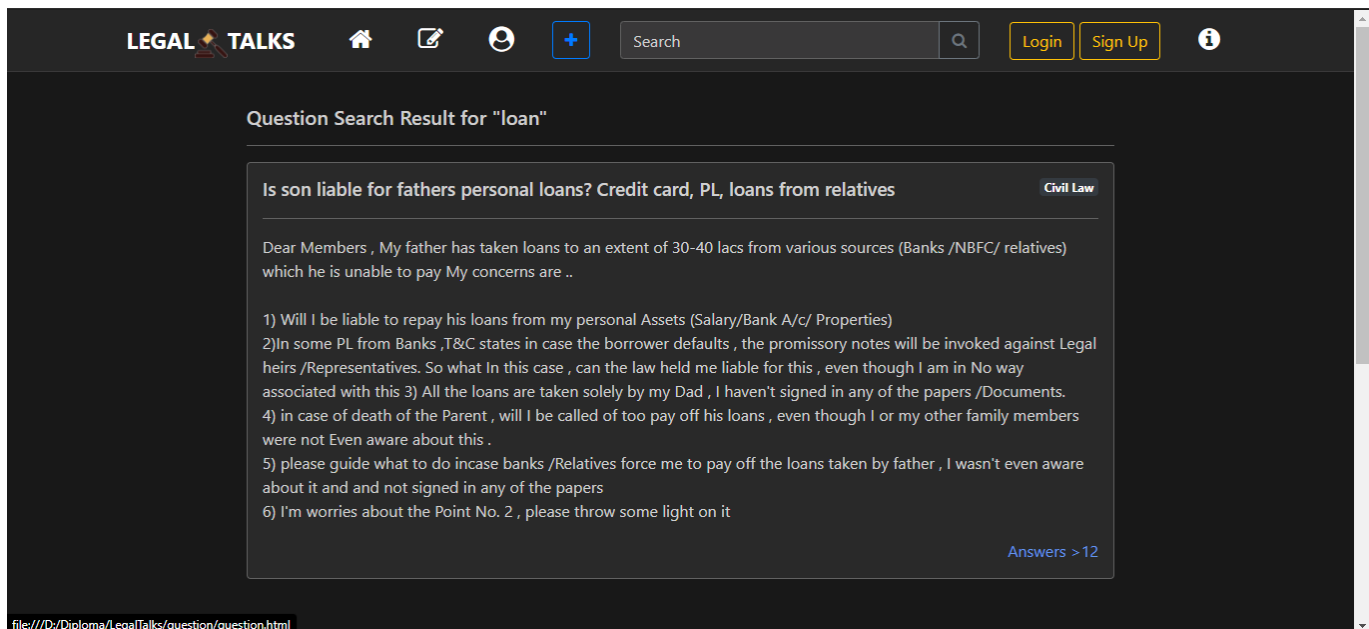


Fig 5.34:- Search Result

13) Question Modals

There are two question modals:

a) Add Question Modal

User can Activate the Modal by clicking on Plus Button present on the navigation bar or user can simply click on the what is your question input field present on the homepage. Both the methods will make the Question Modal Popup.

The question modal has Anonymous Function, Choose Category, Question Title and Question Detail Fields. User can use the Anonymous Function to hide their Identity. User can choose any one category which fits their question from the given 10 Categories. In Question Title user can add their Question and then they can use the Question Detail Field to explain it further.

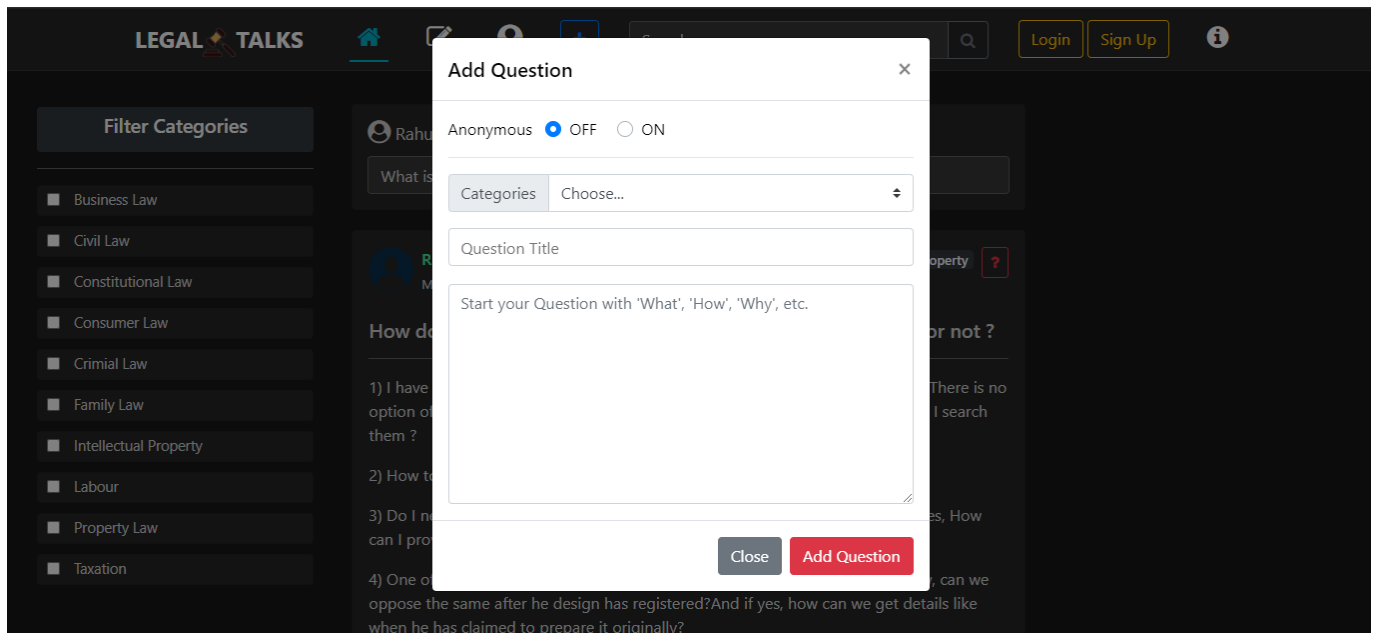


Fig 5.35:- Add Question Modal

b) Edit Question Modal

Using Edit Question function user can Edit their previously asked questions. By Clicking on the Edit Button present on the Question Card it make Edit Question Modal Pop-Up.

In Edit Question Modal User can Edit the Title of Question and Detail Of Question.

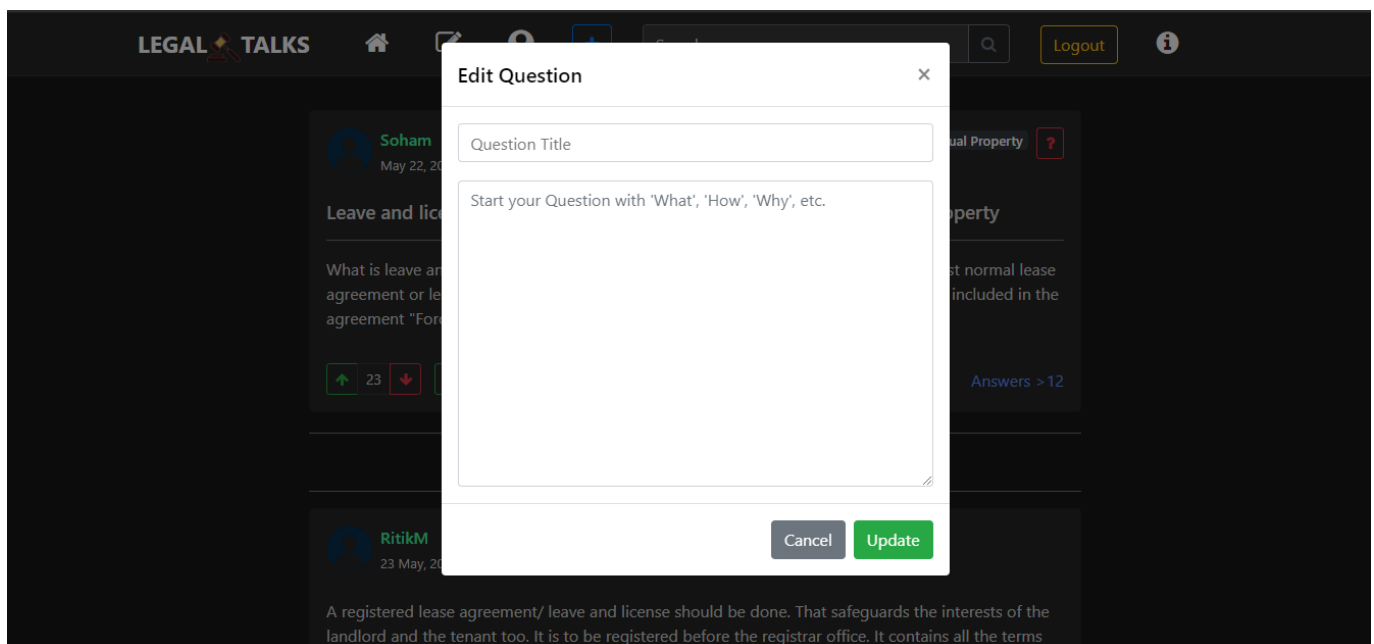


Fig 5.36:- Edit Question Modal

14) Answer Modals

Answer Modal can be used to Answer the question.

User can Activate the modal by clicking on the Answer Button present on any question card. Answer card only contained one Answer text area field which can be used to write your answer.

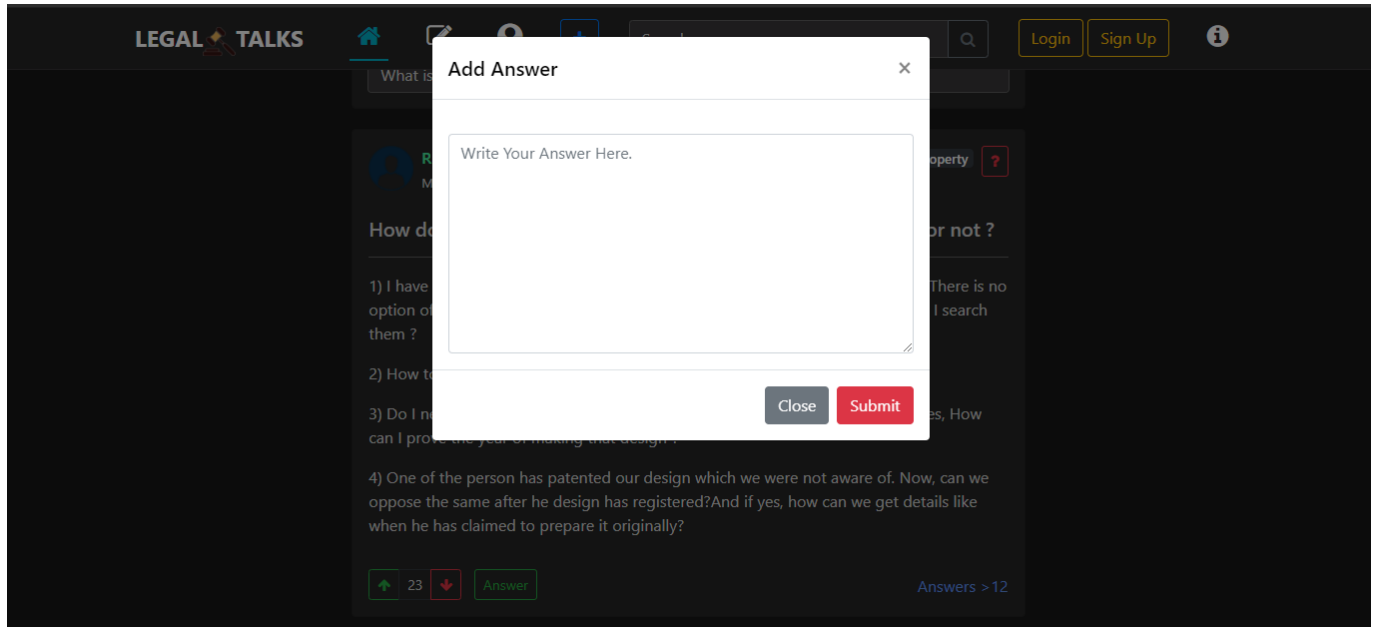


Fig 5.37:- Add Answer Modal

15) Delete Modal

You can Activate the Delete Modal by clicking the Delete Button Present on the Question/Answer Card from either Your Content Page or Question Detail View Page.

Delete Modal can be used to Delete the Question asked by user/lawyer and answer given by a lawyer.

Delete has two modal Delete Question Modal and Delete Answer Modal.

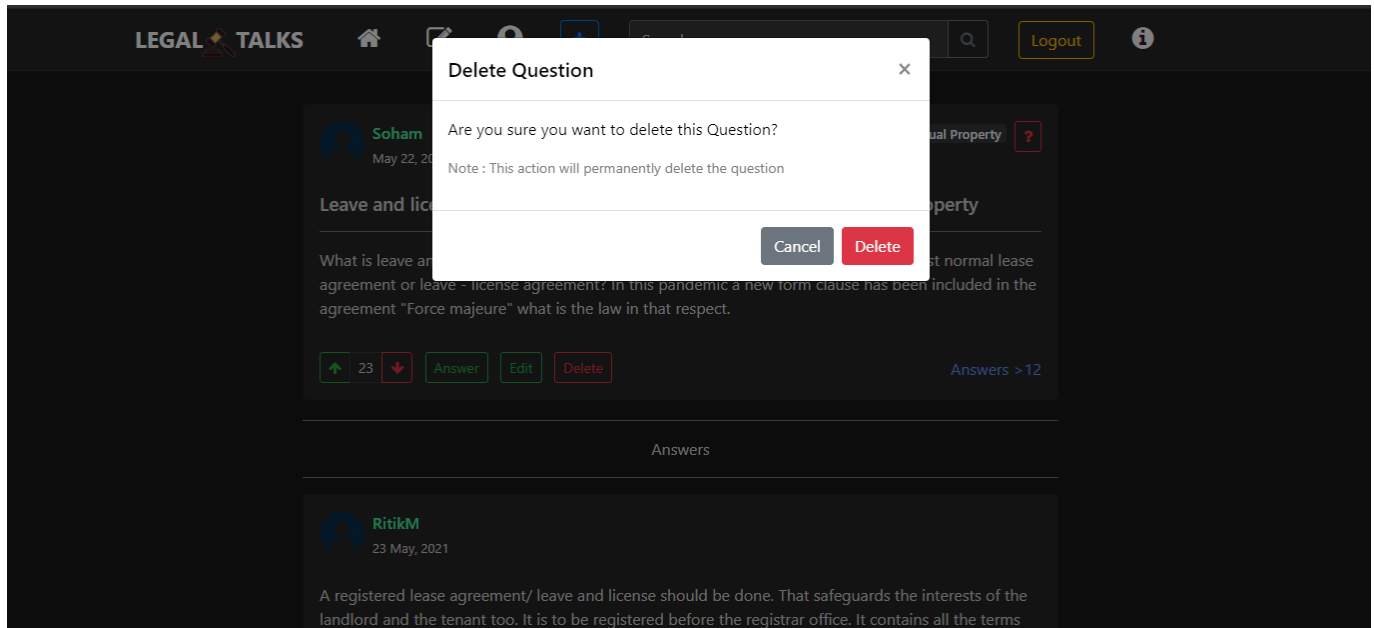


Fig 5.38:- Delete Question Modal

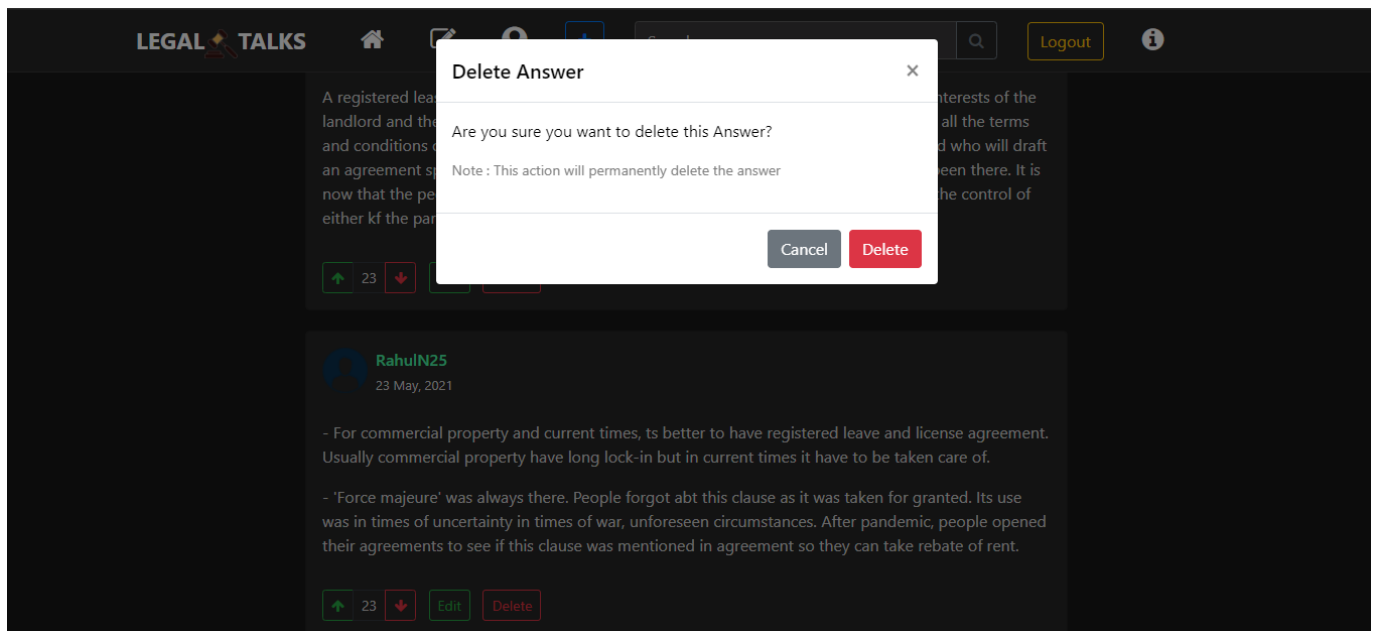


Fig 5.39:- Delete Answer Modal

16) Report Modal

Report modal can be used for reporting the inappropriate questions.

Report Modal can be activated by pressing the report Button present on the top-left side of the question card.

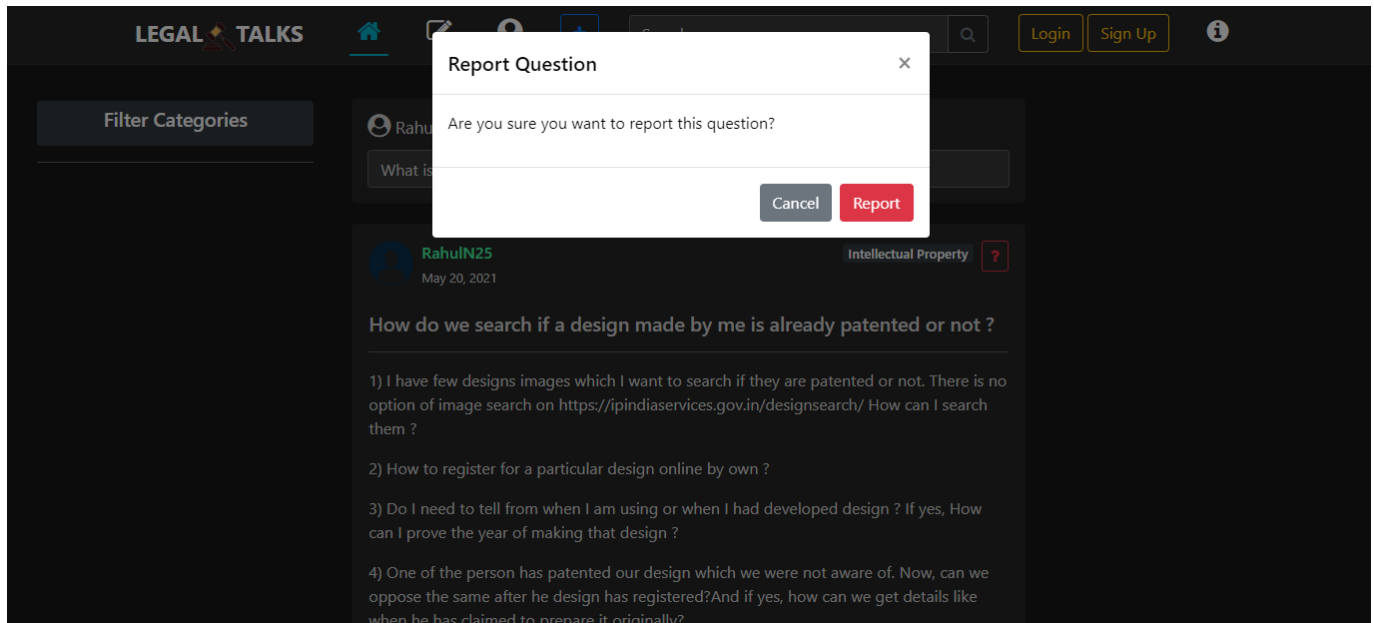


Fig 5.40:- Report Question Modal

17) Upvote and Downvote Button

The Upvote button is indicated by Up arrow and the Downvote button is indicated by Down arrow. The Upvote and Downvote buttons are present on every Question and Answer Cards.

if user wants to upvote the question/answer user can press up arrow button or if user wants to downvote the question/answer user can click on down arrow button as per his choice. If the answer has more upvotes as compared to downvotes then counter will display positive number or else counter will display zero or negative which indicates the downvotes

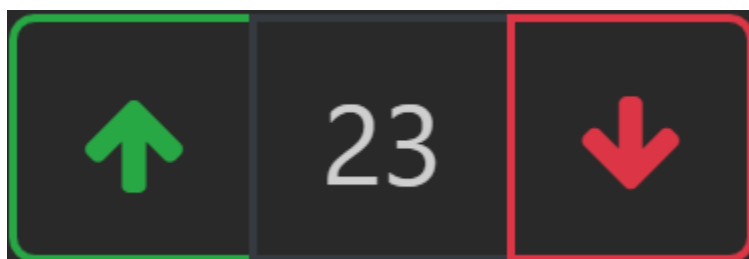


Fig 5.41:- Upvote and Downvote Button

CHAPTER 6:
RESULT AND
APPLICATION

CHAPTER 6

RESULT AND APPLICATION

6.1 Results:

We have successfully developed a Questions and Answers platform called Legal Talks specifically for Indian Law. Which will help people by solving their doubts/questions regarding Indian Law and make them aware. Only the certified lawyer will answer users' questions so that the answer user will be satisfied by answers.

Our platform is feature rich and has responsive and clean graphical user interface which helps user in navigating through the website. There are no charges for using Legal Talks platform it is free of cost.

6.2 Applications:

- Solving Questions Regarding the Indian Law.
- Can be Helpful for students which are opting for law related studies.
- Learning new information, about a specific topic or just in general knowledge related to law.
- Seeking to share your knowledge with others.
- Connecting with other users and discussing ideas and concepts.
- Making People aware about the Indian Law.

CHAPTER 7:
CONCLUSION AND
FUTURE SCOPE

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Conclusion:

We expect lots of people to use this platform for posting their questions and interacting with lawyers that will help them get their appropriate answer for their questions. As Q&A platforms are really popular on the Internet we expect that lots of people will use our Legal Talks platform for getting their answer regarding Indian Law. Our platform can be a great help to the students that are pursuing education in Indian Law

7.2 Future Scope:

In future we aim to improve our User Interface (UI) further more by adding animations that look appealing and attract more users to our platform. We can also add regional language support to make it more accessible and comfortable while using it.

We can also add more features to our website such as:

- Bookmark Various Questions and Answers for easily Accessing them.
- Support Content Moderator which will moderate the content
- Support For Indian Languages such as Hindi and Marathi.
- Follow users/lawyers.
- Personalized Feed.
- Notifications Support.
- Support for Images to share while asking questions and answering question

CHAPTER 8:
REFERENCES AND
BIBLIOGRAPHY

CHAPTER 8:

REFERENCES & BIPLIOGRAPHY

8.1 References:

- [1]Law StackExchange (<https://law.stackexchange.com/>)
- [2]Kanoon (<https://www.kaanoon.com/>)
- [3]LawGuru (<https://www.lawguru.com/>)
- [4]python (<https://docs.python.org/3/>)
- [5]Bootstrap (<https://getbootstrap.com/docs/4.1/getting-started/introduction/>)
- [6]postgresql (<https://www.postgresql.org/docs/>)
- [7]CSS (<https://www.w3schools.com/HTML/>)
- [8]CSS (<https://www.w3schools.com/css/>)
- [9]javascript (<https://developer.mozilla.org/en-US/docs/Web/JavaScript>)
- [10]Django (<https://docs.djangoproject.com/en/3.2/>)
- [11] Yuxuan Chen, “Designing a Q&A platform for college students”, published in UX Collective on Aug 11, 2020.
- [12] Ayelet Gal-Tzur, Shirley Bar-Lev, Yoram Shiftan, “Using Question & Answer Forums as a Platform for improving Transport-Related Information for Tourists”, Sage Journals, Vol 59, Issue 7, 2020.
- [13] Adabriand Furtado, Nigini Oliveira, Nazareno Andrade, “A case study of contributor behavior in Q&A site and tags: the importance of prominent profiles in community productivity”, *Journal of the Brazilian Computer Society* volume 20, Article number: 5 (2014).