

YAMERO

A Project Report Submitted to

Rajiv Gandhi Proudhyogiki Vishwavidyalaya

In partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

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Vith sem B.Tech
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Certificate

This is to certify that, the Project entitled “**Yamero**” is the bonafide work done by Sarthak Verma (0701CS181049), Chandrakant Khannade (0701CS181017), and Abhay Sharma (0701CS181002) in the Department of Computer Science and Engineering, Ujjain Engineering College, Ujjain and is submitted to RGPV for partial fulfillment of the requirements of the award of B.Tech degree in Computer Science and Engineering during the academic year 2018-2022.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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INTRODUCTION

1.1 Rationale

Social media represents a virtual simulation of everyday life and this means that you can gather useful information about human behavior by observing interactions as they occur on these channels. A social media questionnaire or survey is a full-proof method that can help you gather and interpret online behaviors and help them likewise.

1.2 Problem definition and proposed solution

On a questionnaire social website, we observe that a lot of people react to the questions, statements, comments, etc. The gist of using a social networking-based website is being helpful to other people and being relevant to the context in which conversation is going on or the question is asked.

Though some users don't follow this minor gesture and react offensively or try to be irrelevant.

We propose a solution to this by **“Yamero”**. We tend to design and develop a questionnaire website where everyone can put questions and everyone can answer the questions asked. Now since we expect that every answer is not helpful and it works. So we give the “Seeker” (a term given to the person asking the question) an option to try, read or implement those answers and then share those answers so that relevance of the whole topic stays intact.

Literature Survey

This project was inspired by the problems faced by our peers in one of our developer communities. Where students as we as professionals were struggling with problems that they were not comfortable sharing anywhere. While using applications based on the question and answer paradigm. Users never had the choice about what kind of answers to his/her questions should be public. Whether it should have an image or not.

Process Model Adopted

3.1 Analysis

We have adopted the following flow of information for this project:

1. A Three-layer architecture would be there to have proper authentication and work.
2. For each and every operation, carried out on the front-end, a request will be dispatched to the server.
3. The server will process the request and interact with the database accordingly.
4. Required validations will be performed on the server.
5. Information will either be fetched or updated in the database, based on the operation.
6. The generated result will be sent as a response from the server.

The response, after processing, will be reflected on the front-end.

3.1.1 Requirement Analysis

A social networking website is a tool to connect people moreover it connects whole world to share every bit of information to help each other. Every person in this world has questioned whether they are personal or professional. For some contacting directly to a person is a tough task while some may not have people to converse with and get a friendly solution.

A questionnaire website serves the purpose of humanity and connecting people when they are in need of knowledge and getting comfortable with circumstances around them.

3.1.2 Architecture Specification

Hardware Analysis

- Yamero being a web application, doesn't need much computational power. Users can have any ES6 compatible web browser, eg. Google Chrome, Brave, and Mozilla Firefox.
- Still, there are some minimum hardware requirements needed to run the application flawlessly. The minimum requirements are as follows:
 1. RAM: At least 2GB DDR3
 2. Processor: 2.3 GHz Intel i3 or above
 3. Hard Disk Space: None, It's a web-based application
 4. Network card required for data transfer

Software Analysis

The system has minimal software requirements in comparison to the task it accomplishes.

The necessary software required to run this project are:

1. **React.js environment**

ReactJS is a declarative, efficient, and flexible JavaScript library for building reusable UI components. It is an open-source, component-based front-end library responsible only for the view layer of the application.

It was created by Jordan Walke, who was a software engineer at Facebook. It was initially developed and maintained by Facebook and was later used in its products like WhatsApp & Instagram. Facebook developed ReactJS in 2011 in its news feed section, but it was released to the public in the month of May 2013.

The main objective of ReactJS is to develop User Interfaces (UI) that improves the speed of the apps. It uses virtual DOM (JavaScript object), which improves the performance of the app. The JavaScript virtual DOM is faster than the regular DOM. We can use ReactJS on the client and server-side as well as with other frameworks. It uses components and data patterns that improve readability and helps to maintain larger apps.

2. **Node.js**

Node.js is a cross-platform runtime environment and library for running JavaScript applications outside the browser. It is used for creating server-side and networking web applications. It is open-source and free to use.

Many of the basic modules of Node.js are written in JavaScript. Node.js is mostly used to run real-time server applications.

Node.js runs the V8 JavaScript engine, the core of Google Chrome, outside of the browser. This allows Node.js to be very performant.

A Node.js app runs in a single process, without creating a new thread for every request. Node.js provides a set of asynchronous I/O primitives in its standard library that prevent JavaScript code from blocking and generally, libraries in Node.js are written using non-blocking paradigms, making blocking behavior the exception rather than the norm.

When Node.js performs an I/O operation, like reading from the network, accessing a database or the filesystem, instead of blocking the thread and wasting CPU cycles waiting, Node.js will resume the operations when the response comes back.

This allows Node.js to handle thousands of concurrent connections with a single server without introducing the burden of managing thread concurrency, which could be a significant source of bugs.

Node.js has a unique advantage because millions of frontend developers that write JavaScript for the browser are now able to write the server-side code in addition to the client-side code without the need to learn a completely different language.

3. Express.js:

Express.js is a Node.js web application server framework, which is specifically designed for building single-page, multi-page, and hybrid web applications.

It has become the standard server framework for node.js. While *Express* itself is fairly minimalist, developers have created compatible middleware packages to address almost any web development problem. There are libraries to work with cookies, sessions, user logins, URL parameters, POST data, security headers, and *many* more. You can find a list of middleware packages maintained by the Express team at Express Middleware (along with a list of some popular 3rd party packages).

4. Database: MongoDB (NoSQL)

MongoDB is an open-source document database and leading NoSQL database. It is a cross-platform, document-oriented database that provides high performance, high availability, and easy scalability. MongoDB works

on the concept of collection and document.

Collection is a group of MongoDB documents. It is the equivalent of an RDBMS table. A collection exists within a single database. Collections do not enforce a schema. Documents within a collection can have different fields. Typically, all documents in a collection are of similar or related purpose.

A document is a set of key-value pairs. Documents have dynamic schema. Dynamic schema means that documents in the same collection do not need to have the same set of fields or structure, and common fields in a collection's documents may hold different types of data.

5. Operating System

Linux: Linux is an open-source operating system (OS). An operating system is software that directly manages a system's hardware and resources, like CPU, memory, and storage. The OS sits between applications and hardware and makes the connections between all of your software and the physical resources that do the work.

Linux was designed to be similar to UNIX but has evolved to run on a wide variety of hardware from phones to supercomputers. Every Linux-based OS involves the Linux kernel—which manages hardware resources—and a set of software packages that make up the rest of the operating system.

Linux has evolved into one of the most reliable computer ecosystems on the planet. Combine that reliability with zero cost of entry and you have the perfect solution for a desktop platform.

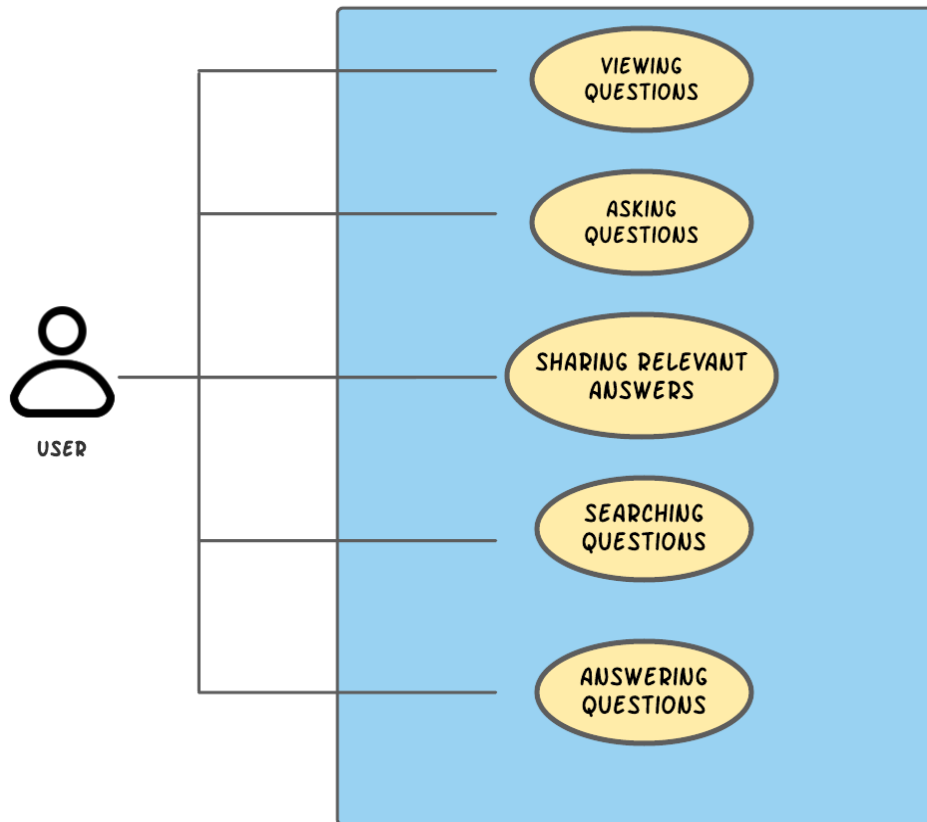
3. 2 Design

Software design is a process to transform user requirements into some suitable form, which helps the programmer in software coding and implementation.

For assessing user requirements, an SRS (Software Requirement Specification) document is created whereas for coding and implementation, there is a need of more specific and detailed requirements in software terms. The output of this process can directly be used into implementation in programming languages.

Software design is the first step in SDLC (Software Design Life Cycle), which moves the concentration from problem domain to solution domain. It tries to specify how to fulfill the requirements mentioned in SRS.

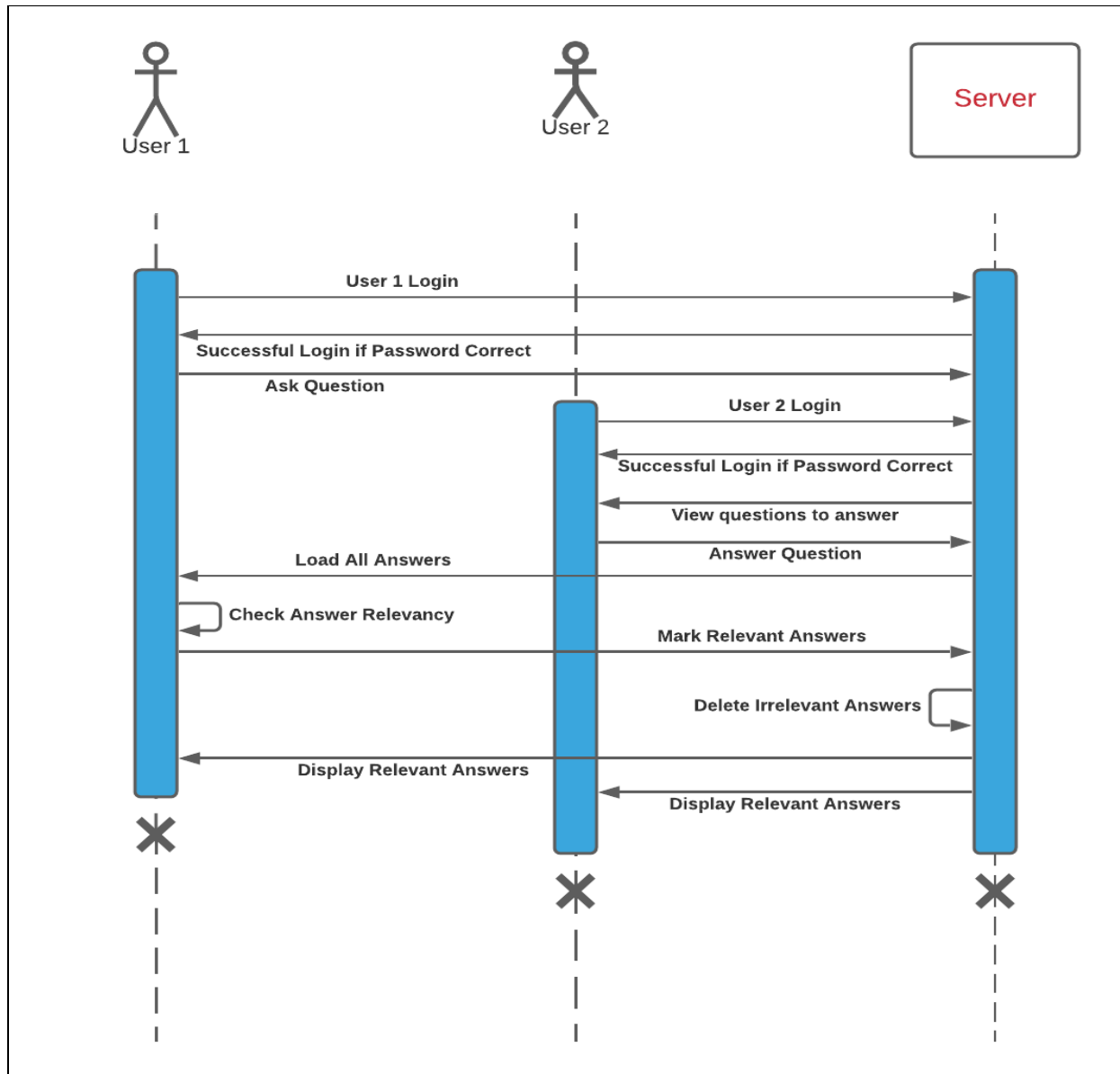
3.2.1 Use Case Diagram



3.2.2 Use Case Specification:

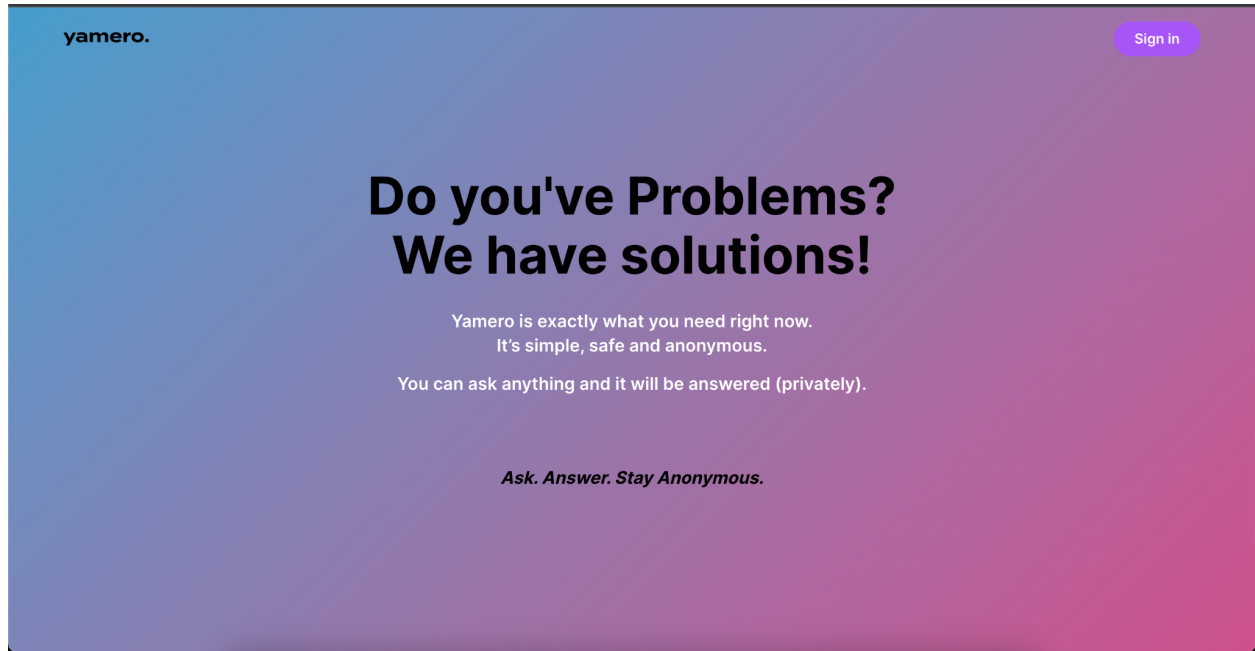
- **Viewing Questions:** The main functionality of any application is to see and look at the content. Hence as soon as the user logs in to the web application, the first screen will be the Feed page. The Feed page contains all the questions asked by other users.
- **Asking Questions:** If a user wants to interact in this social network then it is through asking questions. Since it's a questionnaire website any user would be allowed to ask questions, no word limits are there.
- **Sharing relevant answers:** By default, the answers will be private, ie. Only the Seeker who asked the question would be able to see them. But he will have the option to share all the relevant answers as according to Seeker.
- **Searching Questions:** Users will be able to search for questions based on keywords.
- **Answering Questions:** The Helpers (Users will the role of 'helper') can answer any question.

3.2.3 Sequence Diagram

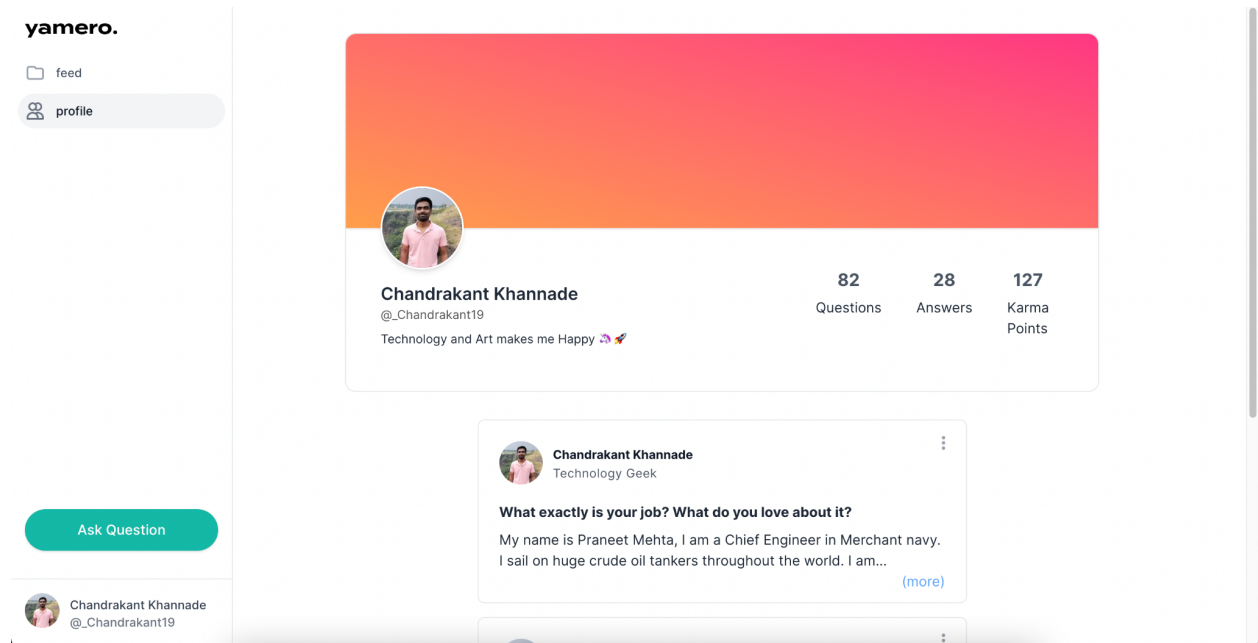


Expected Outcome

4.1 Landing Page



4.2 Profile Page




4.3 Feed Page

yamero.

feed

profile


Ask Question



Chandrakant Khannade
@_Chandrakant19

Hello, Chandrakant

Welcome to Yamero Den. You can start exploring your feed.




Chandrakant Khannade
Technology Geek

What exactly is your job? What do you love about it?

My name is Praneet Mehta, I am a Chief Engineer in Merchant navy.
I sail on huge crude oil tankers throughout the world. I am...

(more)




Chandrakant Khannade
Technology Geek

What're the most eye opening lines you have read in a novel?

In his award winning book, Guns, Germs and Steel, anthropologist
and biologist Jared Diamond points out simple fact: different...

(more)



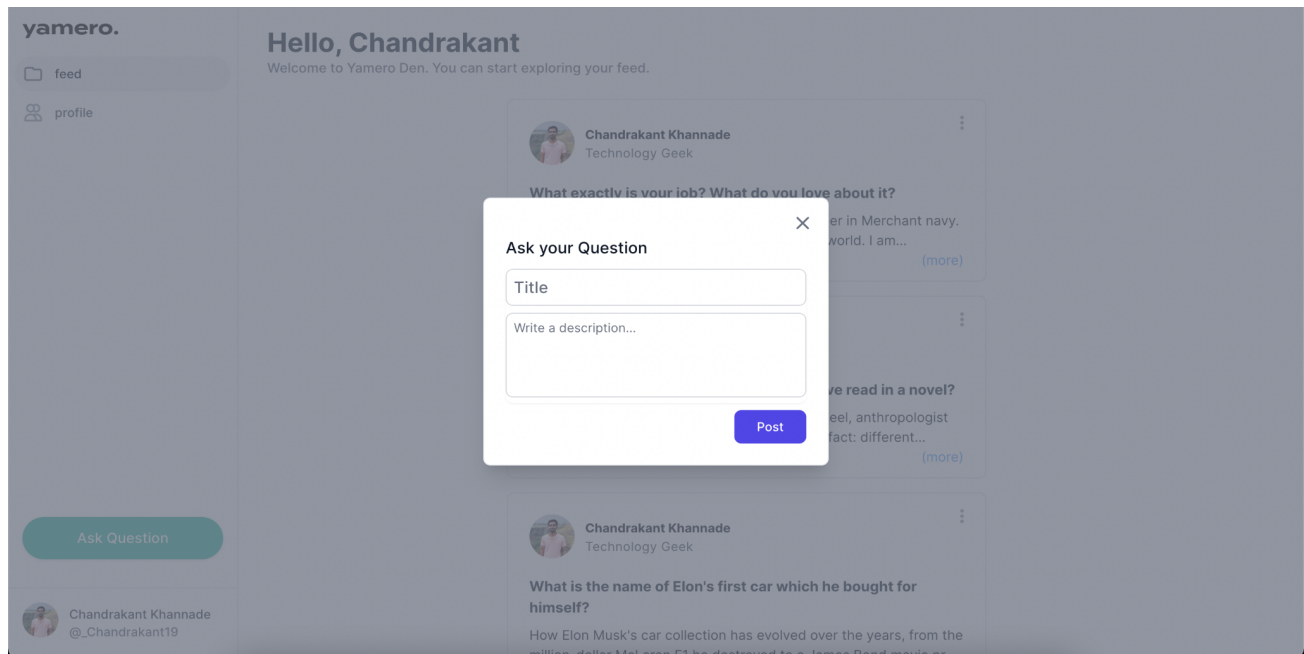
Chandrakant Khannade
Technology Geek

What is the name of Elon's first car which he bought for himself?

How Elon Musk's car collection has evolved over the years, from the
million-dollar McLaren F1 he destroyed to a James Bond movie car...

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4.4 Asking Question Modal



Concluding Remarks

Asking questions in the real world is basically hindered by feelings of self-doubt. We provide a platform for everyone to ask questions and get answers. The effects from social media are very complex and vary from person to person. Based on our data we found that many people either experience negative effects or notice them in other people. We aim to make a social community that helps each other get their queries solved without.

It was a great, enriching and fruitful journey to make this platform as a major project. At times it did test our patience since it was a comparatively complex project but it gave us that resilience towards problems that we focused on imminently.

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