SOLUTIONS INFINITY

STACK OVERFLOW CLONE

A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE AWARD OF THE DEGREE

MASTER OF COMPUTER APPLICATIONS(MCA)

OF

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

By

SANOOP PHILIP
REG No:22PMC148

Marian College Kuttikanam (Autonomous)
Peermade, Kerala – 685 531

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Under the guidance of
Mr. Satheesh Kumar S
Assistant Professor
PG Department of Computer Applications
Marian College Kuttikanam (Autonomous)

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PG DEPARTMENT OF COMPUTER APPLICATIONS
Marian College Kuttikkanam Autonomous

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

KUTTIKKANAM – 685 531, KERALA.

CERTIFICATE

This is to certify that the project work entitled

SOLUTIONS INFINITY

is a bonafide record of work done by

SANOOP PHILIP
REG No:22PMC148

In partial fulfilment of the requirements for the award of Degree of

MASTER OF COMPUTER APPLICATIONS [MCA]

During the academic year 2022-2023

MR. SATHEESH KUMAR S

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External Examiner

External Examine

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SANOOP PHILIP

ABSTRACT

A Stack Overflow clone is a web application that aims to replicate the core functionality and features of the popular question-and-answer platform, Stack Overflow. The features including signup, login, ask question, post answer, use tags, users list, users profile, delete questions, delete answers etc. Users can post their queries and also answer others queries. It also includes powerful search capabilities to enable users to quickly find relevant questions and answers, thereby facilitating efficient knowledge discovery. The Existing System were Developers relied on mailing lists, forums, and online communities specific to programming languages or technologies to ask questions and get assistance.

This Stack Overflow clone offers an accessible and approachable platform for individuals, students, and professionals seeking knowledge exchange and technical assistance. It provides a valuable resource for both beginners and experienced practitioners to grow their skills, find solutions to complex problems.

To develop the Stack Overflow clone, a combination of front-end and back-end technologies were utilized, including HTML, CSS, JavaScript, Python, Django framework, and a relational database management system.

TABLE OF CONTENTS

TABLE INDEX

INTRODUCTION

1. INTRODUCTION

1.1 PROBLEM STATEMENT

The process of seeking programming assistance and exchanging knowledge within the developer community can be cumbersome and time-consuming. Current methods, such as searching through online forums or consulting colleagues, lack efficiency and flexibility, resulting in delays in finding accurate solutions to coding challenges. Additionally, there is a lack of centralized platforms that effectively manage and organize programming-related information, leading to scattered and fragmented resources. These challenges hinder developers' productivity, limit knowledge sharing, and create barriers to efficient problem-solving in the programming community. Therefore, there is a need for a comprehensive and user-friendly platform, similar to Stack Overflow, that facilitates streamlined knowledge exchange, offers reliable solutions to programming queries, and promotes collaboration among developers.

1.2 PROPOSED SYSTEM

The proposed project aims to develop a Stack Overflow clone, a web-based platform designed to facilitate efficient knowledge exchange and support within the developer community. The platform will provide a user-friendly interface for developers and programmers to ask questions, provide answers, and engage in discussions on various programming topics.

Questions are categorized according to tags ,so it get easy for the seekers to get relevant information user also gets reputation for every question they asked solutions they given and for every upvote they get. By creating a centralized hub for programming-related queries and solutions, the project aims to enhance productivity, faster collaboration, and streamline problem-solving processes.

FUNCTIONAL REQUIREMENTS

2. FUNCTIONAL REQUIREMENTS

- **User Registration and Authentication:** Users can create accounts, login, and authenticate themselves to access the features of the platform. This includes managing user profiles and personal information.
- **Question and Answer System:** Users can ask questions on various topics and provide detailed descriptions. Other users can browse and search for questions, post answers, and engage in discussions. The system can support features such as upvoting and comment facility.
- **Voting :** Users can vote on the quality and useful answers.
- **Tagging and Categorization:** Questions and answers can be organized using tags and categories to improve searchability and discoverability of content. Users can assign relevant tags to their questions and explore questions based on specific tags or categories.
- **Reputation System:** The system can incorporate a reputation system where users earn points based on their contributions, such as asking questions, providing answers, and reciving upvotes.
- **Notifications :** Users can receive notifications about updates, responses to their questions.
- **Search Functionality:** The platform should have a robust search feature that allows users to easily find relevant questions and answers based on keywords.
- **User Profile:** User have profiles showcasing their activity, questions, answers, and reputation. They should be able to customize their profile and add or remove their watched tags.

NON-FUNCTIONAL REQUIREMENTS

3. NON-FUNCTIONAL REQUIREMENTS

RELIABILITY

The reliability of the overall project depends on the reliability of the separate components. The main pillar of reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes, also the system will be functioning inside a container. Thus, the overall stability of the system depends on the stability of container and its underlying operating system.

AVAILABLITY

The system should be always available, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. A customer friendly system which is access of people around the world should work 24 hours. In case of a hardware failure or database corruption, a replacement page will be shown. Also, in case of a hardware failure or database corruption, backup of the database should be retrieved from the server and saved by the Organizer. Then the services will be restarted. It means 24 X 7 availability.

MAINTAINABLITY

A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the project will be done. Also, the software design is being done with modularity in mind so that maintainability can be done efficiently.

SUPPORTABLITY

The code and supporting modules of the system will be well documented and easy to understand.

FEATURES AND HIGHLIGHTS

4.1 FEATURES

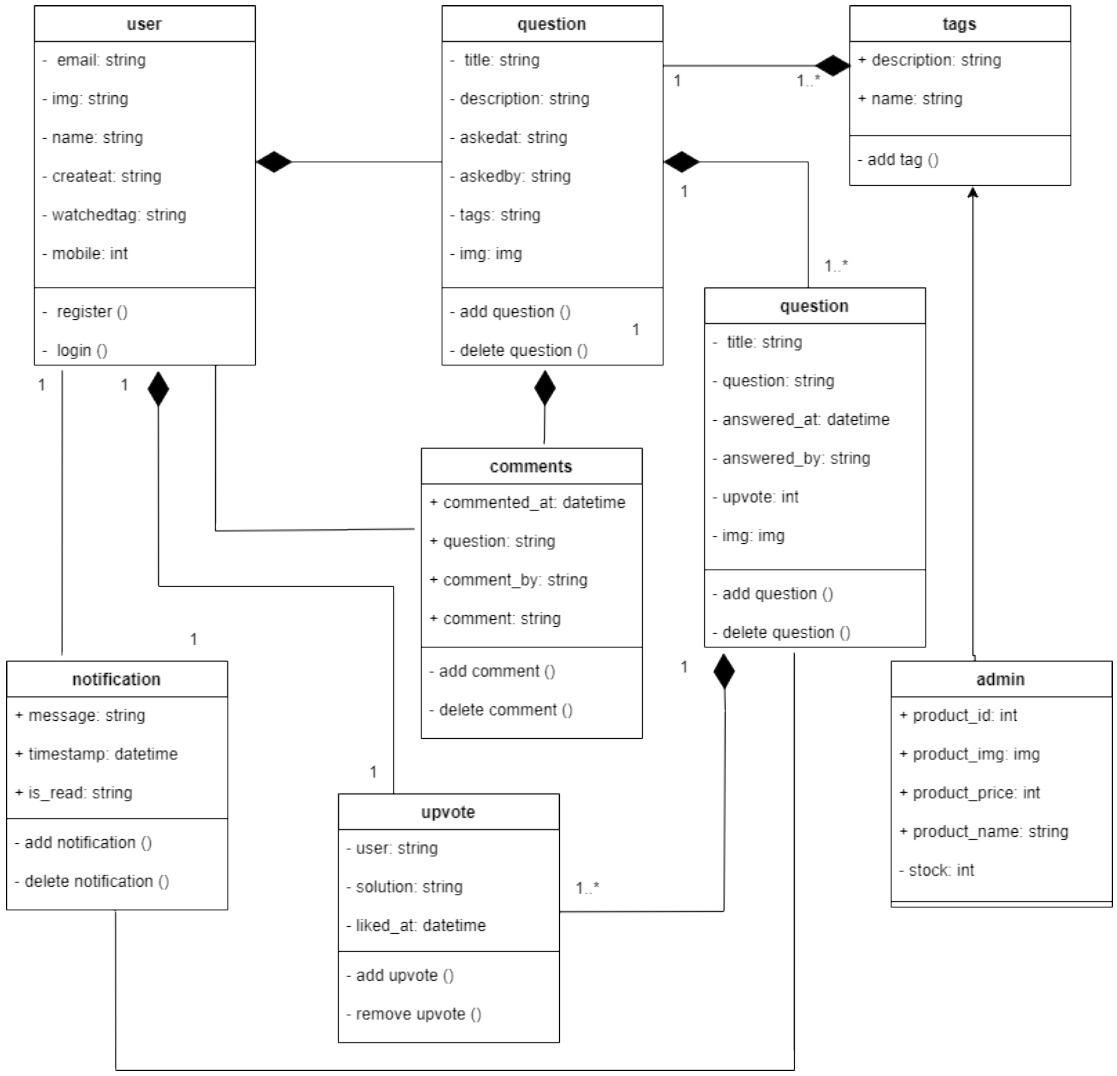
- Register as a user with tags selected.
- User get question related to those tags, but user can filter questions according to tags they have selected.
- User can search or a question.
- User can ask new questions.
- User can view all solutions related to question.
- User can add comment on questions if they have any doubt.
- User can add solution.
- User can see all tags in system and see questions related to it.
- User can edit profile.
- Admin can view bar chart visualization of all users.
- Admin can view line graph of questions asked and solution given.

4.2 Highlights

- User get notified if they get solution for their question.
- User can use solutions gpt, if user don’t get solution from system.
- User can watch tags or un watch according to their comfort.
- User get reputation on basis of upvote, question and solution added.

CLASS DIAGRAMS

5.1 CLASS DIAGRAM



FUTURE ENHANCEMENT

6. FUTURE ENHANCEMENT

- **Chat option between users:** It can be a valuable addition to enhance the collaboration and communication experience within the platform. It allows users to have real-time conversations, seek clarifications, and exchange information more effectively.
- **Edit question option:** This option allows users to modify the content and details of their posted questions. It provides an opportunity to make updates, corrections etc.
- **Edit answer option:** It allows users to modify the content of an existing answer to a question. This feature provides a way for users to improve and update their answers based on new information, corrections etc.
- **Badging system:** Provide Badges to user according to there reputation.

CONCLUSION

7.1 CONCLUSION

Solutions infinity has the potential to foster a vibrant and collaborative community of developers, where knowledge is shared, problems are solved, and valuable connections are created. Constructing a Stack Overflow clone can be a great way to build a healthy community of knowledge-sharing and problem-solving. You can create a platform where users can ask questions, receive answers, and engage in discussions about programming, software development, and other technical issues by reproducing the basic operations and features of Stack Overflow.

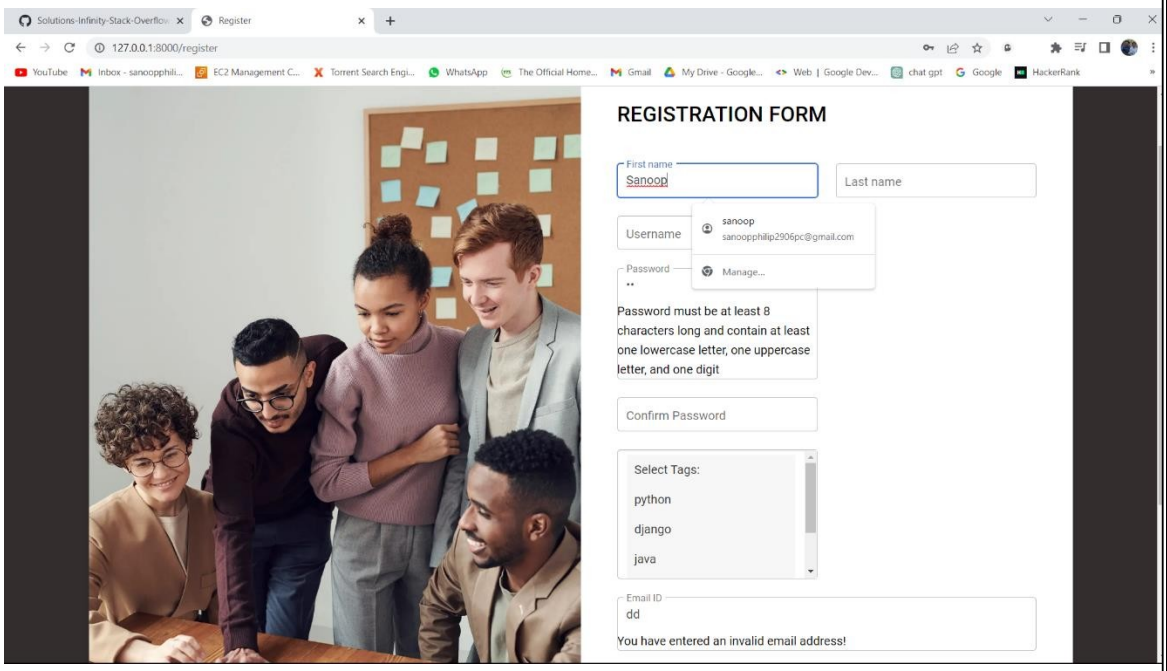
REFERENCE

8. REFERENCE

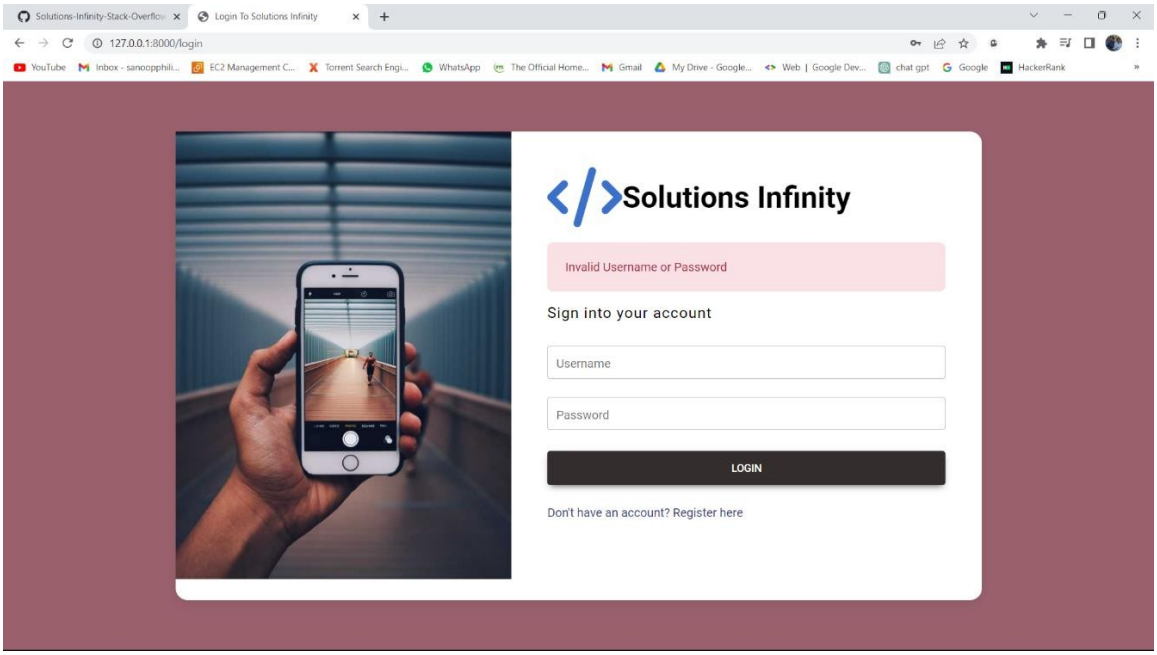
https://stackoverflow.com/

ANNEXURE

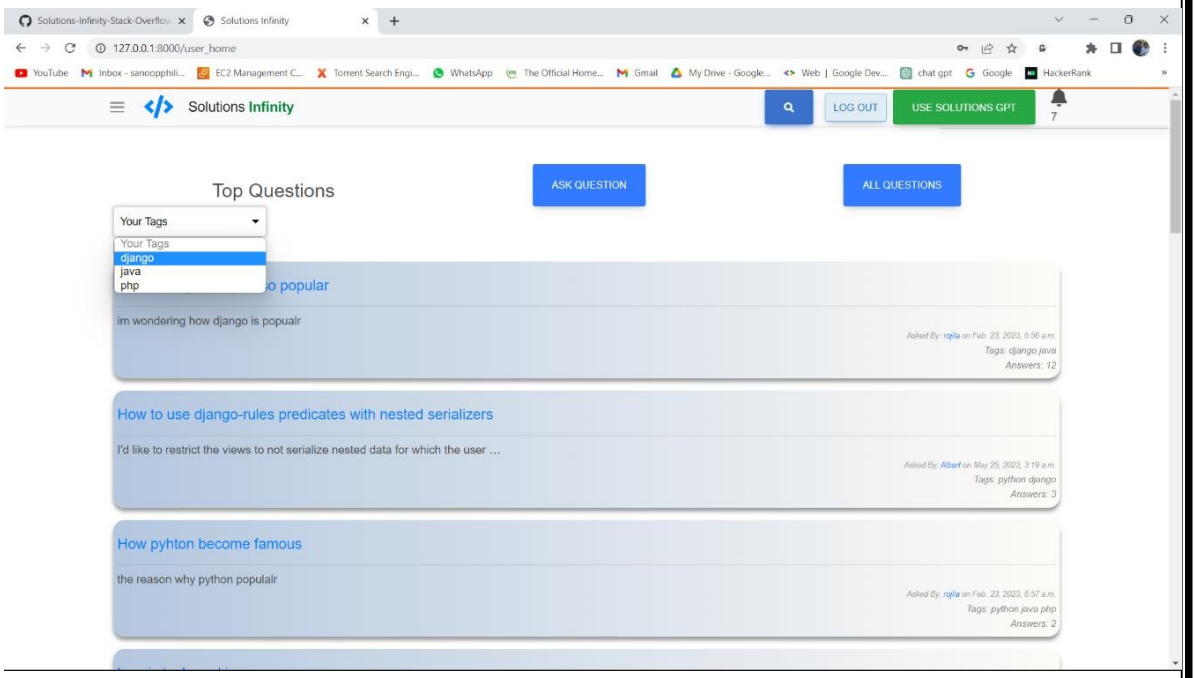
9.1 REGISTRATION



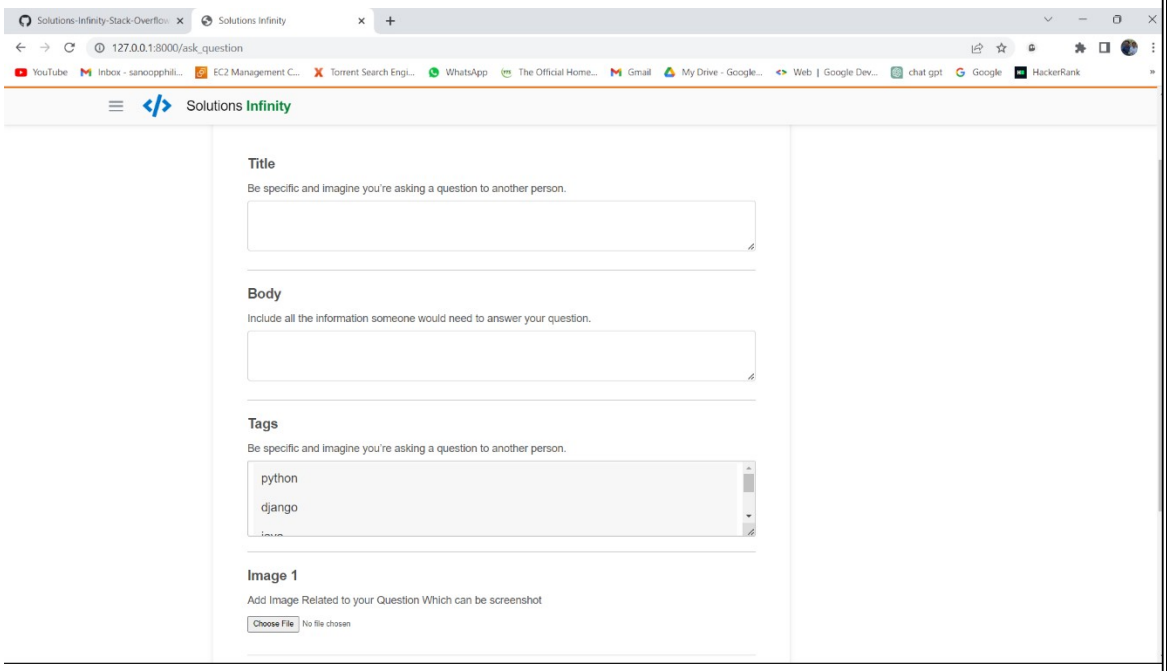
9.2 LOGIN



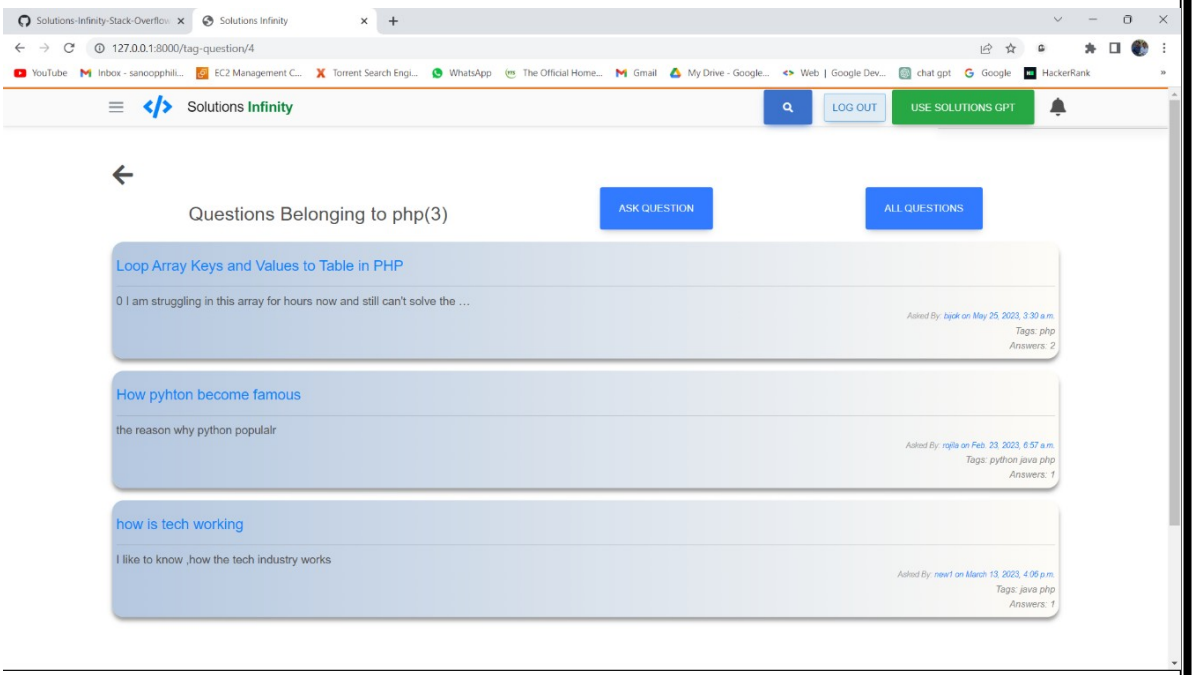
9.3 USER HOME PAGE



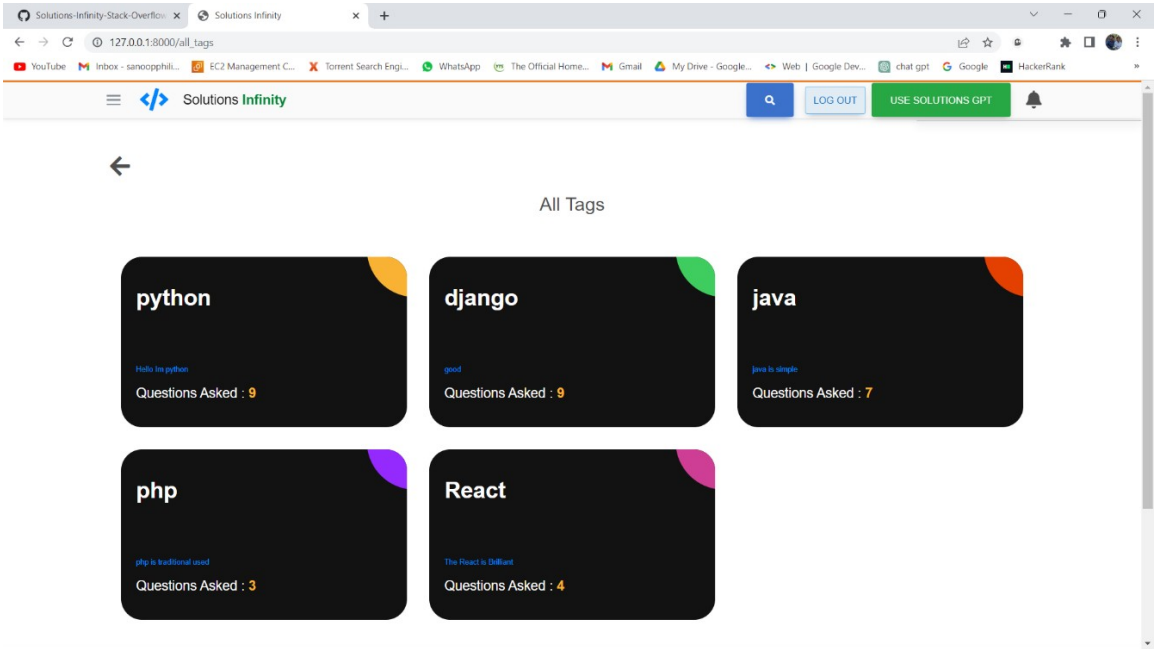
9.4 ASK QUESTION PAGE



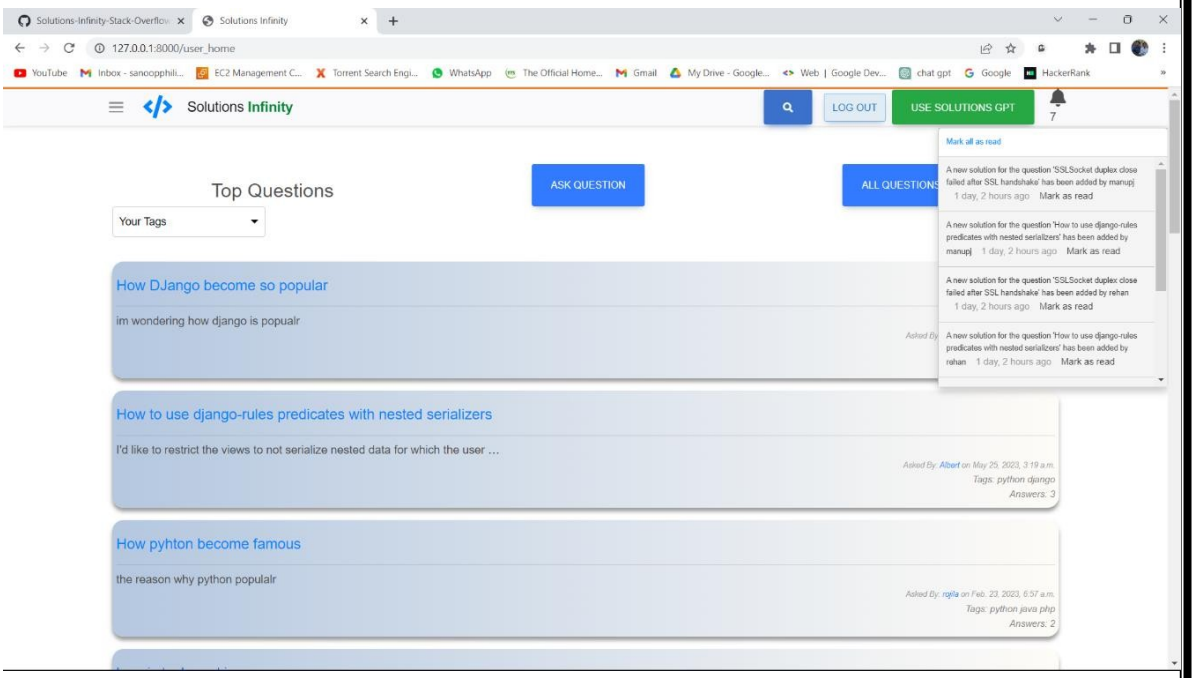
9.5 TAG- QUESTION PAGE



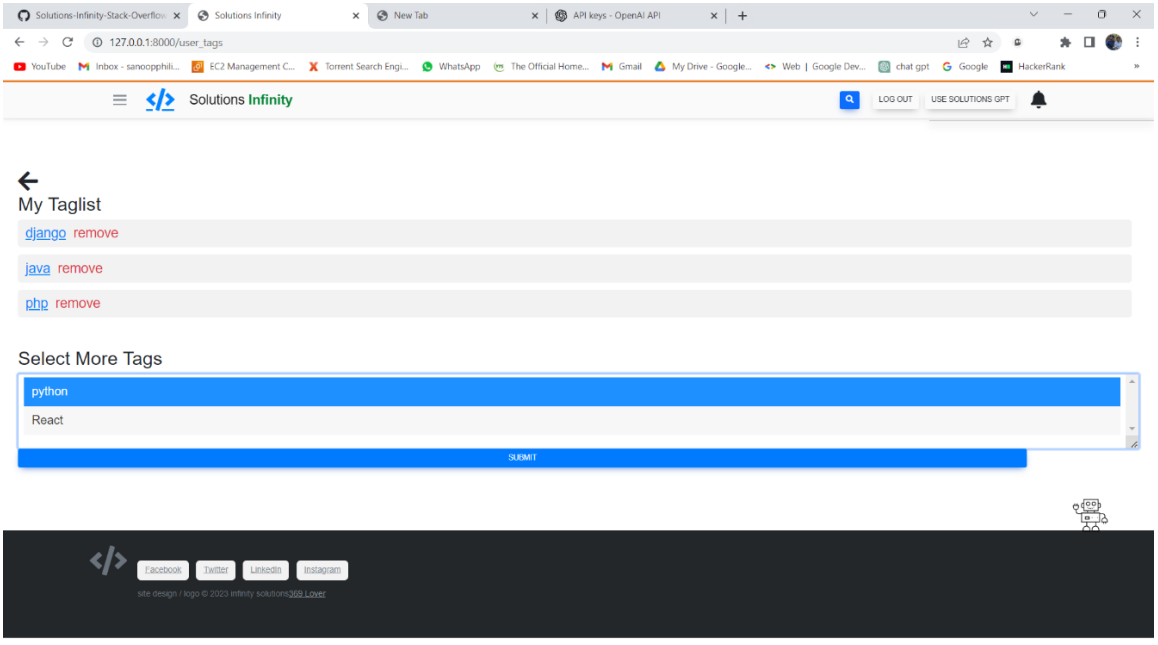
9.6 ALL TAG PAGE



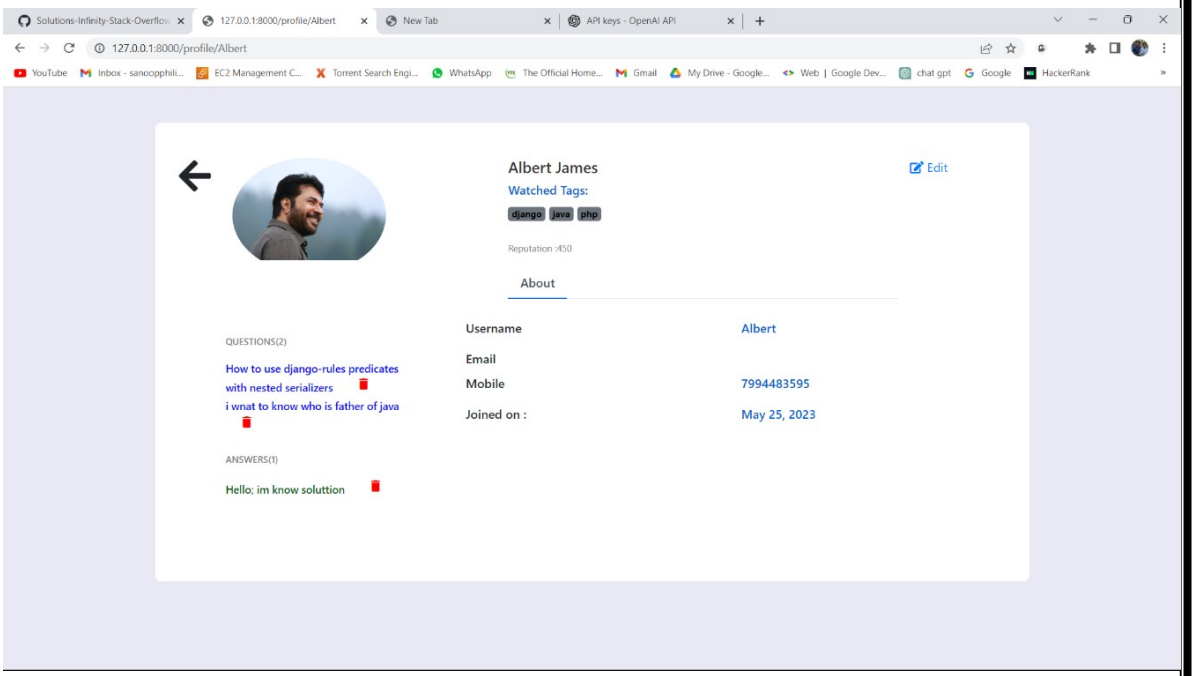
9.7 NOTIFICATION



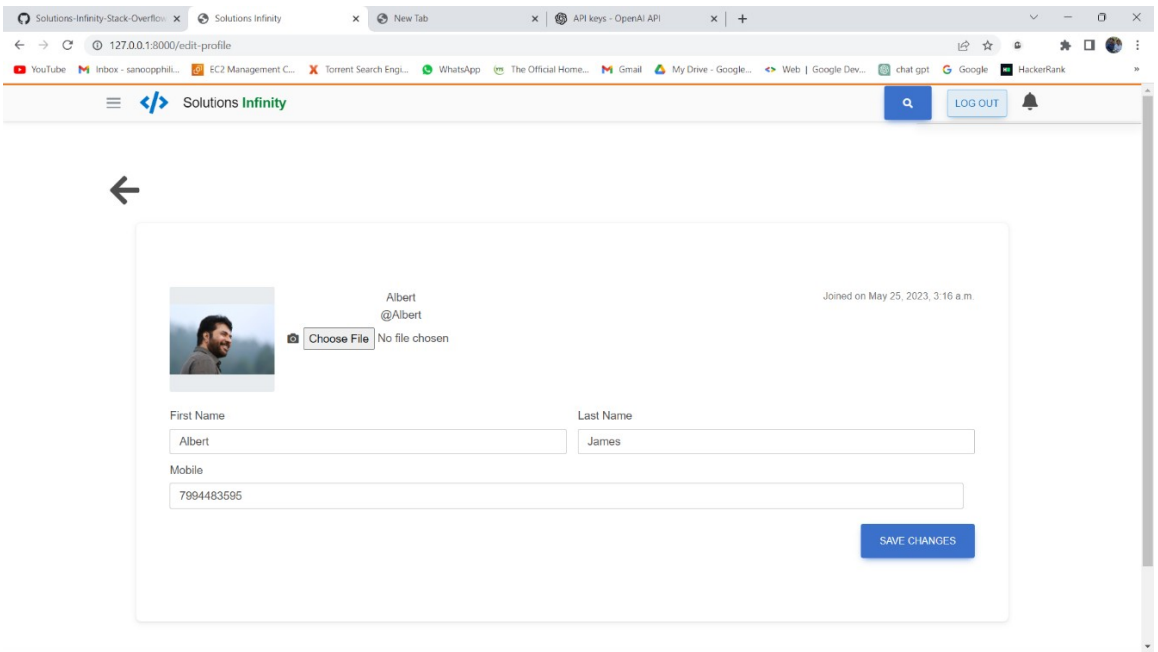
9.8 ADD/REMOVE TAG PAGE



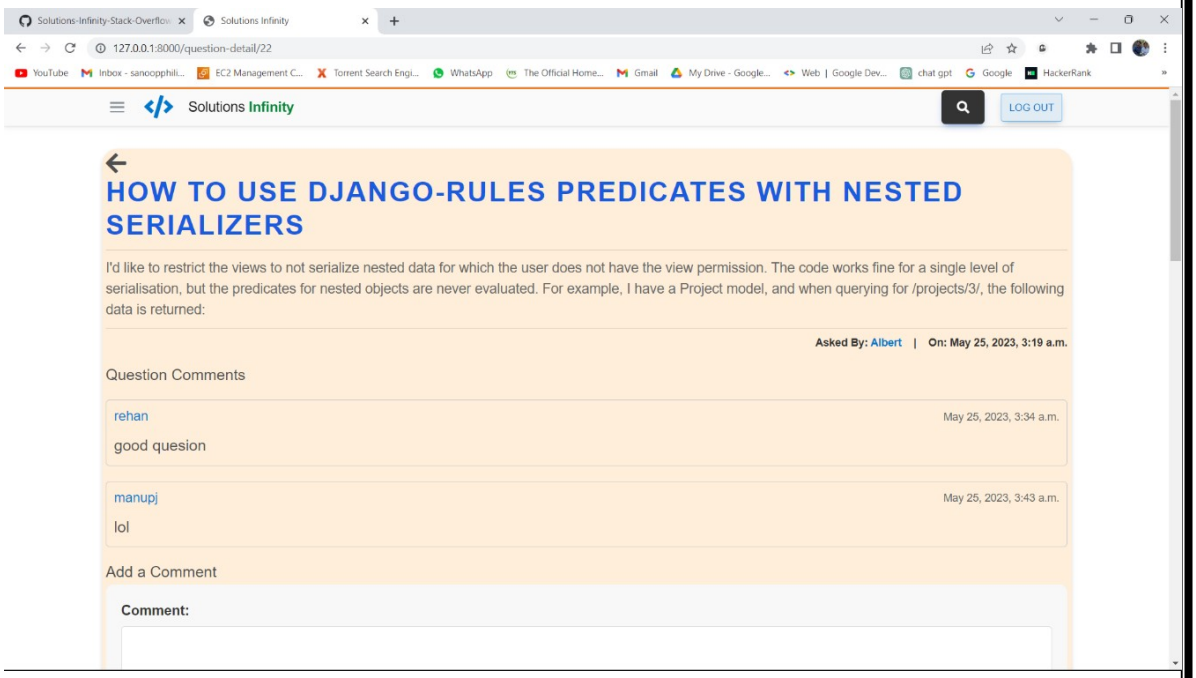
9.9 PROFILE VIEW PAGE

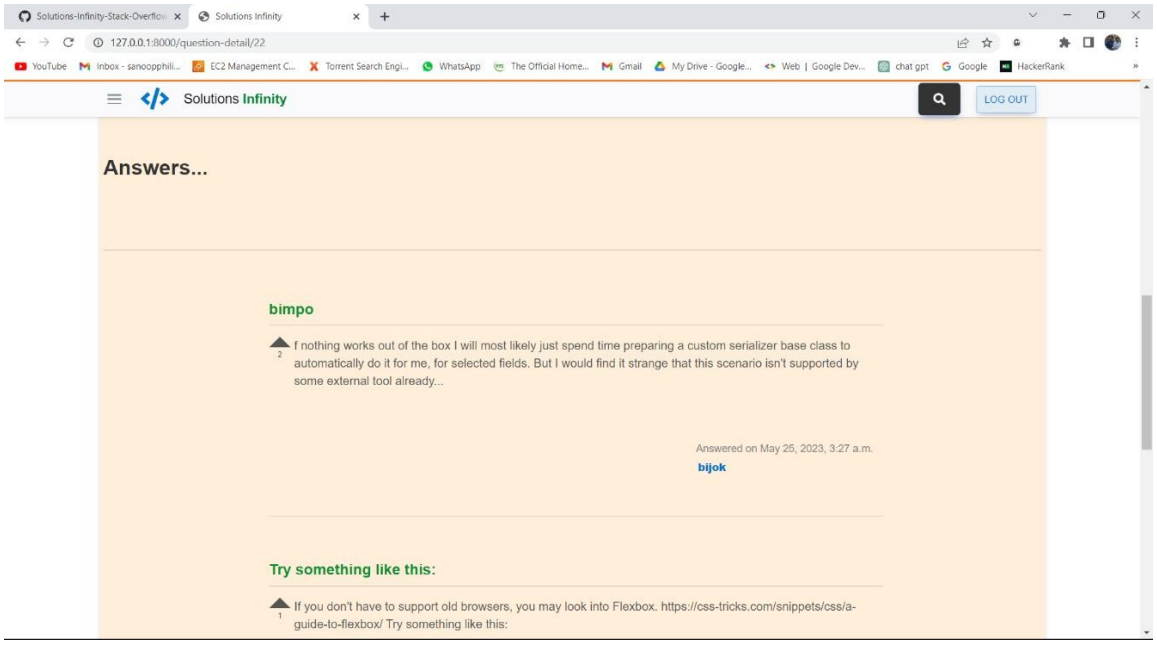


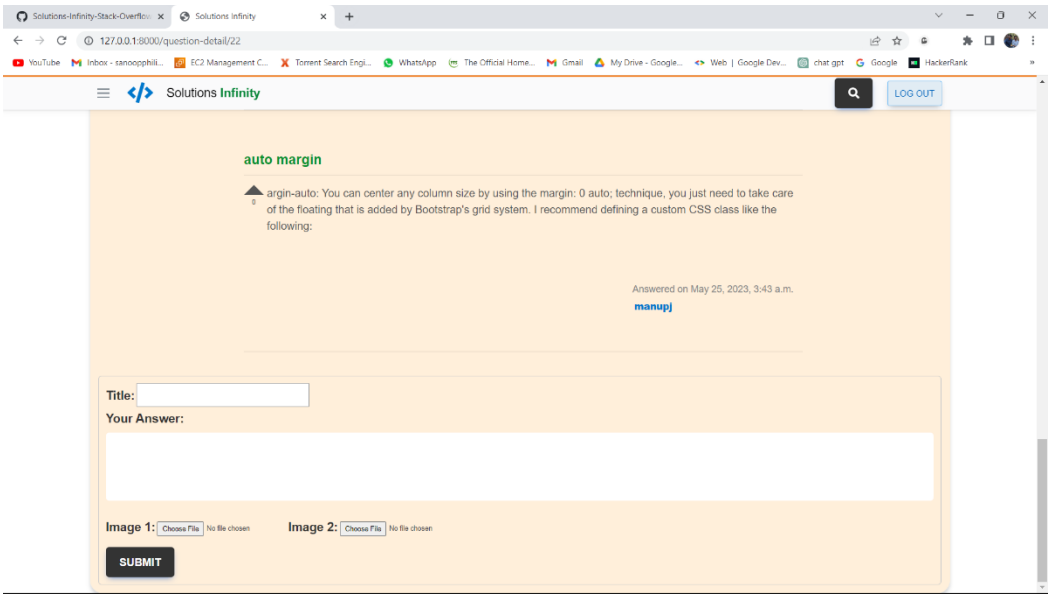
9.10 PROFILE EDIT PAGE



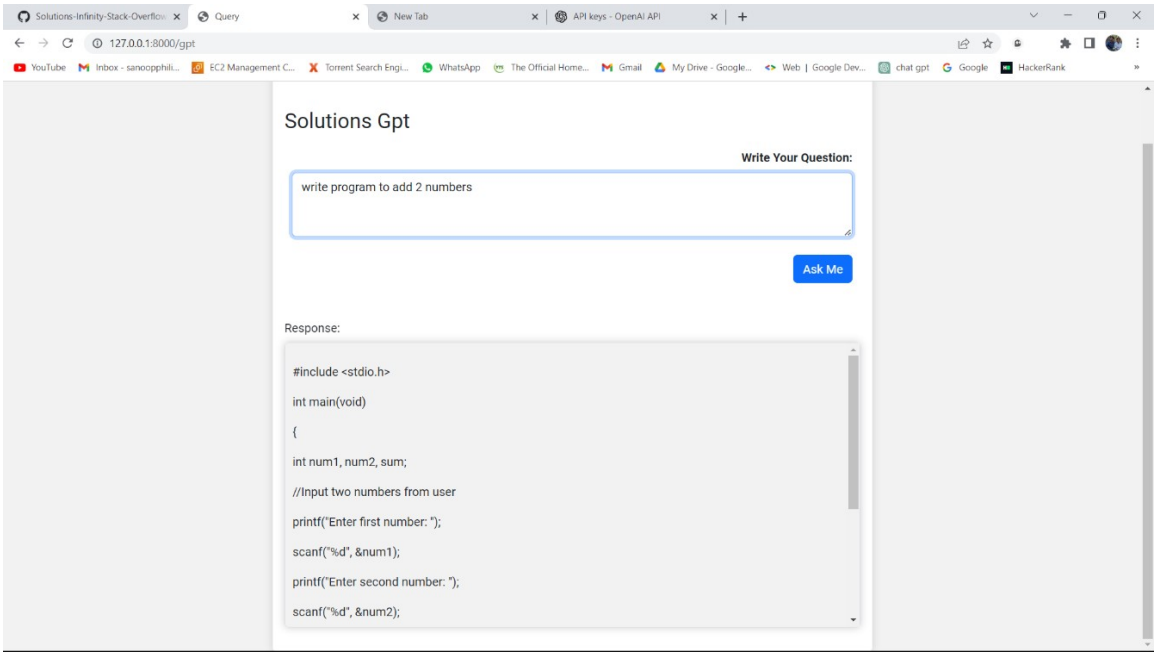
9.11 QUESTION DETAIL PAGE



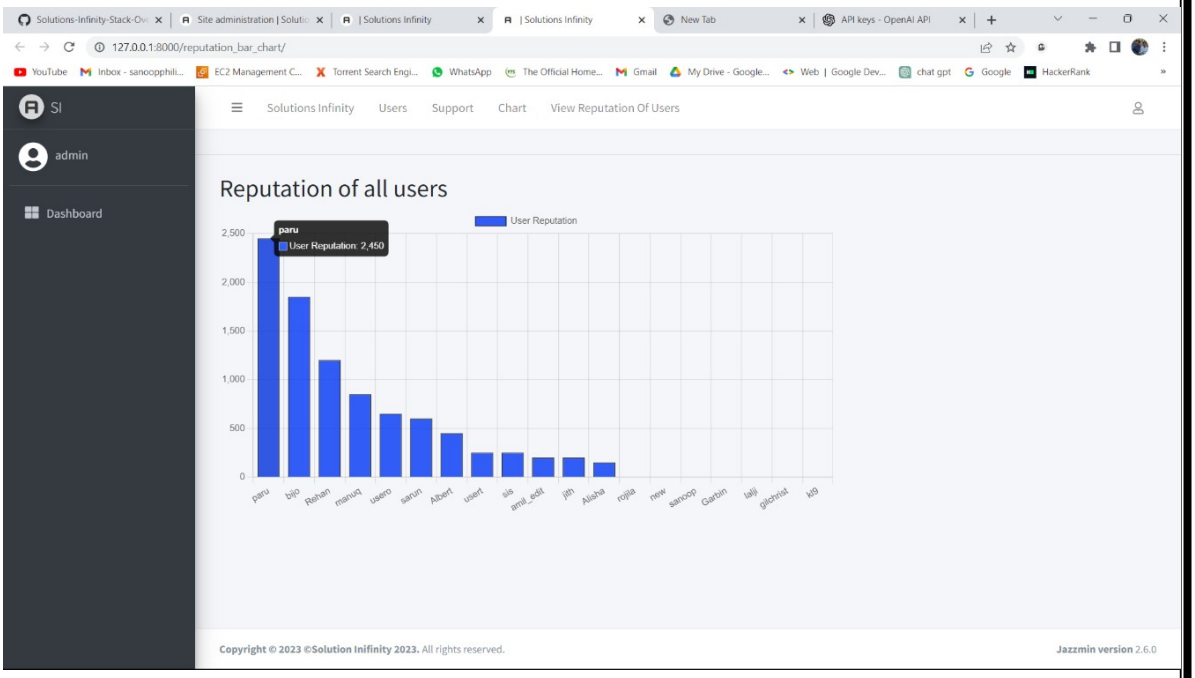




9.12 SOLUTIONS GPT PAGE



9.13 ADMIN VISULAIZATION ABOUT REPUTATION OF USERS



9.14 ADMIN VISUALIZATION ABOUT PROGRESSION OF SYSTEM