

# A Project Report On University Placement Assistance

Sushanth Puram

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# Abstract

The “Building an IT Platform for University Management” is designed to provide a comprehensive platform for students preparing for placements. The website includes features such as blogs, job postings, and question banks from various companies like Google, Amazon, TCS, and more. The platform aims to assist students in their preparation by providing relevant and updated content. The website is built using a tech stack that includes HTML, CSS, javascript, ReactJS for the frontend, Amazon RDS for the database, and Flask for the backend.

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# Chapter 1

## Introduction

The Placement Assistance Website aims to address the challenges faced by students in preparing for job placements. The platform provides a variety of resources including blogs on interview experiences, company-specific question banks, and the latest announcements related to placements.

# Chapter 2

## Problem Definition

The primary questions addressed by this project are:

- How can students access comprehensive preparation materials for placements?
- How can a centralized platform enhance the efficiency of placement preparation?
- What are the key resources students need for effective placement preparation?

# Chapter 3

## Implementation

The website is implemented using the following tech stack:

- Frontend: JavaScript, HTML, CSS, ReactJS
- Backend: Flask (Python)
- Database: Amazon RDS(SQL), MongoDB

Key functionalities include user authentication, content management, and dynamic updates for blogs and job postings.

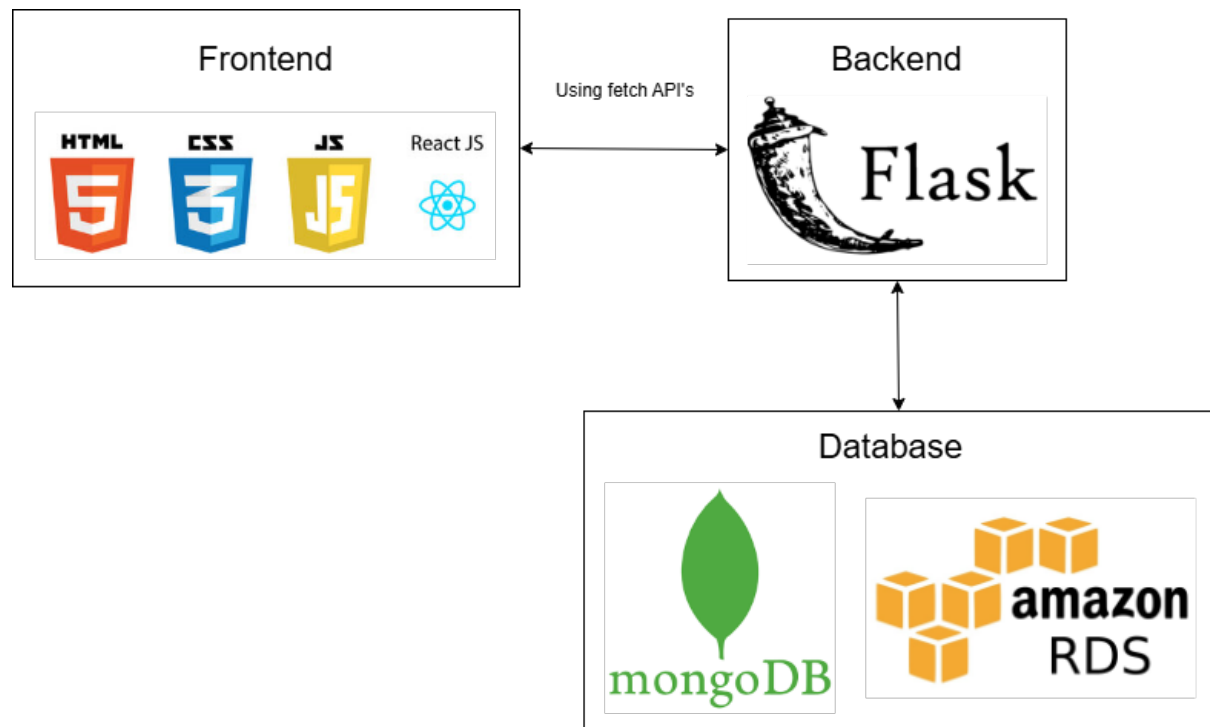


Figure 3.1: Stack

# Chapter 4

## Placement Portal Features

### 4.1 Question Bank

The Placement Portal offers a comprehensive question bank that allows students to filter and solve questions from various companies.

#### Key Functions:

- **Filtering and Searching:** Students can tailor their search to meet their specific needs, helping them prepare for interviews and assessments.
- **Content Variety:** The question bank includes a wide range of questions across various subjects and difficulty levels, enabling comprehensive preparation.

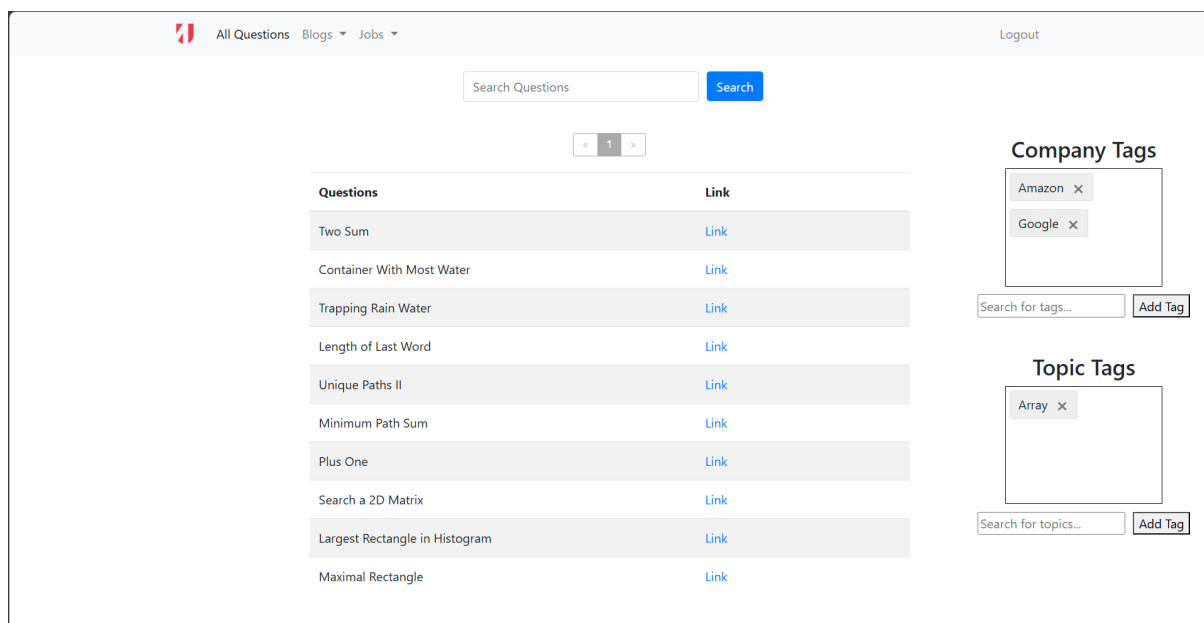


Figure 4.1: Questions page with filters for company and topic tags on the right side

## 4.2 Blogging Platform

This platform enables students to share their experiences, ask questions, and engage with the community.

### Key Functions:

- **User Interaction:** Students can post comments, reply to comments, and engage in discussions with other users.
- **Draft Saving:** Users can save their blog posts as drafts, allowing them to work on their content over time.
- **Publishing Options:** Students can choose to publish their blog posts to specific users or make them public for everyone to see.
- **Anonymous Commenting:** The site offers the ability for users to comment anonymously, ensuring a safe and open environment for discussions.
- **Blog Liking:** Users can like blog posts, providing positive feedback to the authors.

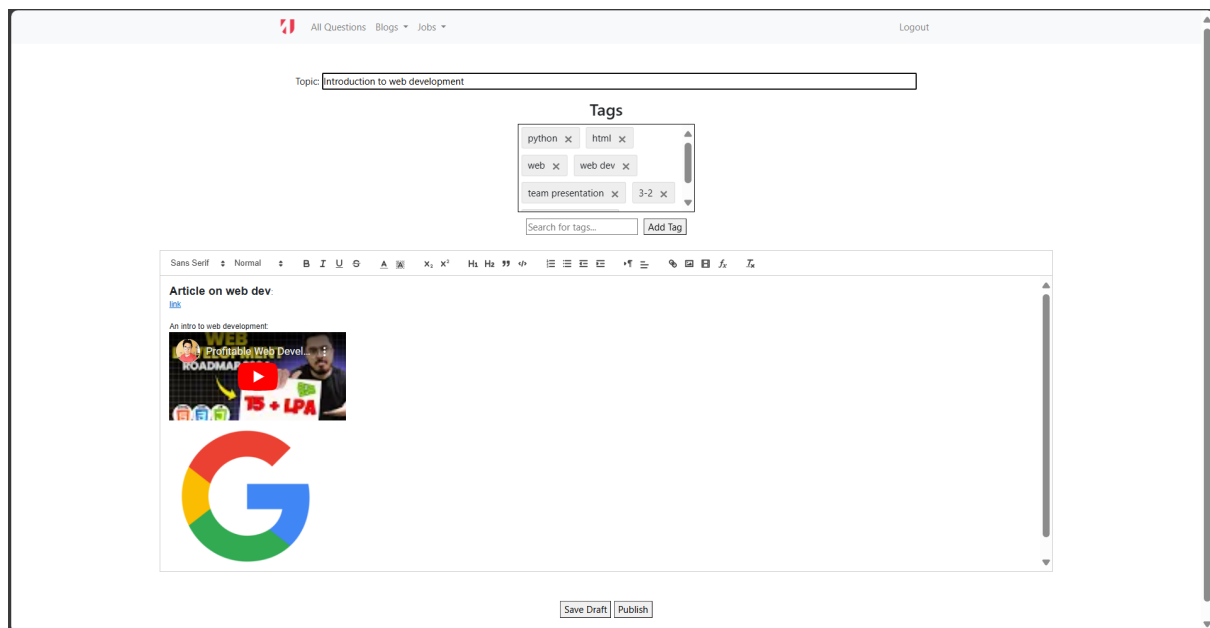


Figure 4.2: Page to create blog using topic, tags, and multi-type content(images, videos, links etc.)



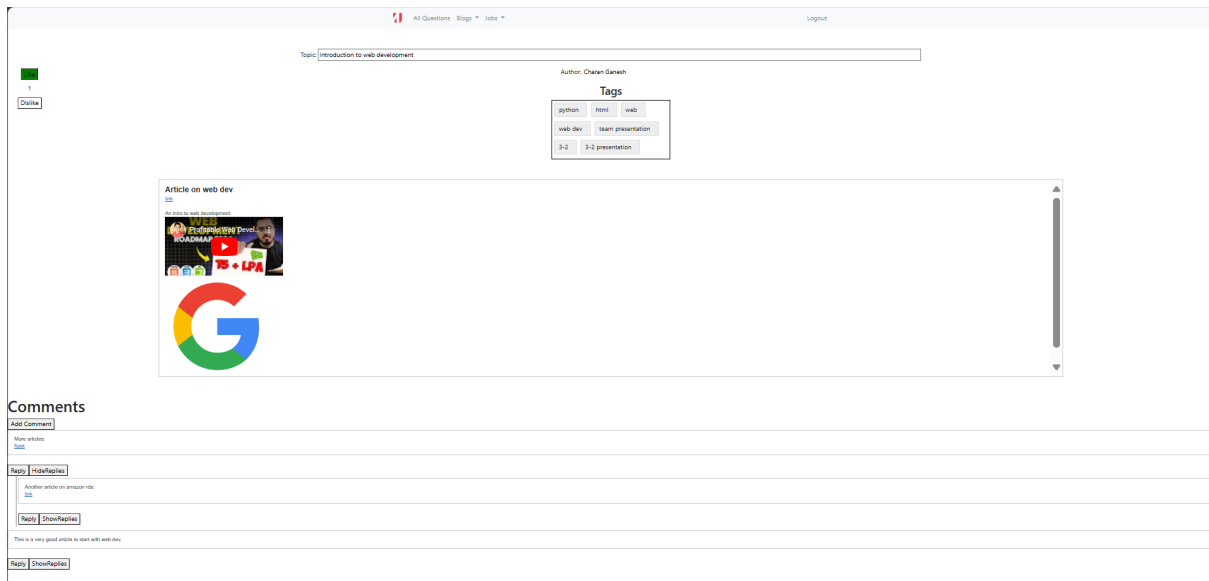


Figure 4.3: Page to display blog with options to like and commenting by the user.

## 4.3 Job Application Portal

The portal includes an efficient job application system that provides detailed job postings.

### Key Functions:

- **Job Postings:** Administrators can post job openings with specific details such as job title, company name, location, and qualifications.
- **Direct Application Links:** Students can easily apply for jobs by clicking on direct application links provided in the job postings.
- **Job Search:** Students can search for job opportunities based on various criteria such as job title, company name, or location.
- **Application Tracking:** Students can track the status of their job applications and receive notifications for any updates or changes.
- **Resume Upload:** Students can upload their resumes to the job portal, making it easier for employers to review their qualifications.

# Chapter 5

## Integration with Current Software

### 5.1 Customized API Calls

The Placement Portal boasts specific API calls designed for every task, ensuring seamless integration with existing software systems.

### 5.2 Efficient Data Retrieval and Display

These tailored API calls facilitate the swift retrieval of necessary data, which is then dynamically presented on the frontend, enhancing user experience.

### 5.3 Enhanced User Interaction

In addition to data retrieval, the API calls can also trigger the opening of a separate page, enhancing user engagement when selecting options on the main website.

# Chapter 6

## Planned Features

The following features are currently being planned for implementation:

### 6.1 Database Upgrade

Move to MongoDB for storing large amounts of text data alongside the existing AWS RDS (SQL-based) database.

**Benefits:**

- MongoDB's flexible schema and scalability make it suitable for handling large amounts of text data.

### 6.2 AI Suggestions in Blog Writing

Implement AI-powered suggestions to enhance the blog writing experience.

**Benefits:**

- AI algorithms can analyze the content and provide suggestions for improving the structure, grammar, and overall quality of the blog posts.

### 6.3 ML-based Comment and Blog Flagging

Utilize machine learning concepts to automatically flag and filter out bad comments and blogs.

**Benefits:**

- ML algorithms can analyze the content and identify inappropriate or spammy content, improving the overall quality and safety of the platform.

# Chapter 7

## Conclusion

The Placement Assistance Website successfully provides a centralized platform for students preparing for placements. Future work will focus on integrating more advanced features such as AI-based resume reviews and mock interview simulations.

# Chapter 8

## References

- Documentation for Amazon RDS, Javascript, Flask, ReactJS, MongoDB.
- Online resources and tutorials on web development best practices.