



Intelligent Recruiter System



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Abstract

Since there is no platform that includes all different fields, or a website for students, or fresh graduates that truly shows their abilities and their real progress throughout their college years. As students we have felt this struggle when trying to apply for jobs/internships, or when we needed questions answered regarding specific topics.

Our main goal is to make a platform where students from different fields can find the best questions and answers, interact with them, and participate in weekly competitions. The student's profile will be dynamically updated according to his behavior and interactions with other students.

Moreover, badges will be given based on the student's behavior throughout the activity of the account regarding the questions or the weekly competitions, these badges will be one of the main considerations when it comes to recruiters and their interviews.

Furthermore, due to the importance of internships/jobs to students, which provides them with experience by dealing with real-life projects, we have made it fundamental in our website to make it easier for students to be qualified when it comes to recruitment. Our students will be able to search for jobs and receive recommendations regarding the real-time market needs based on their dynamic profiles

Therefore, it is not only a Q&A software or a recruitment platform, but both of them combined.

Introduction

Our website facilitates the process for searching for jobs and receiving recommendations regarding the real-time market needs based on their dynamic profiles.

A platform that contributes in making learning easier, preparing students and fresh graduates for the work environment .

Reduces the gap between the students and the real market needs. And to Make recruitment process more efficient.

Our project's main technologies are text analysis, a recommendation engine, a broker engine, and a search engine.

Methods

The development methodology followed in this project is the agile methodology principles, as we manage our project by breaking it up into several phases and continuous improvement at every stage, and the client-server architecture.

Languages Used:

Client-side: HTML, CSS, JavaScript, ReactJs.

Server-side: NodeJS, Python to build the model and the main engines.

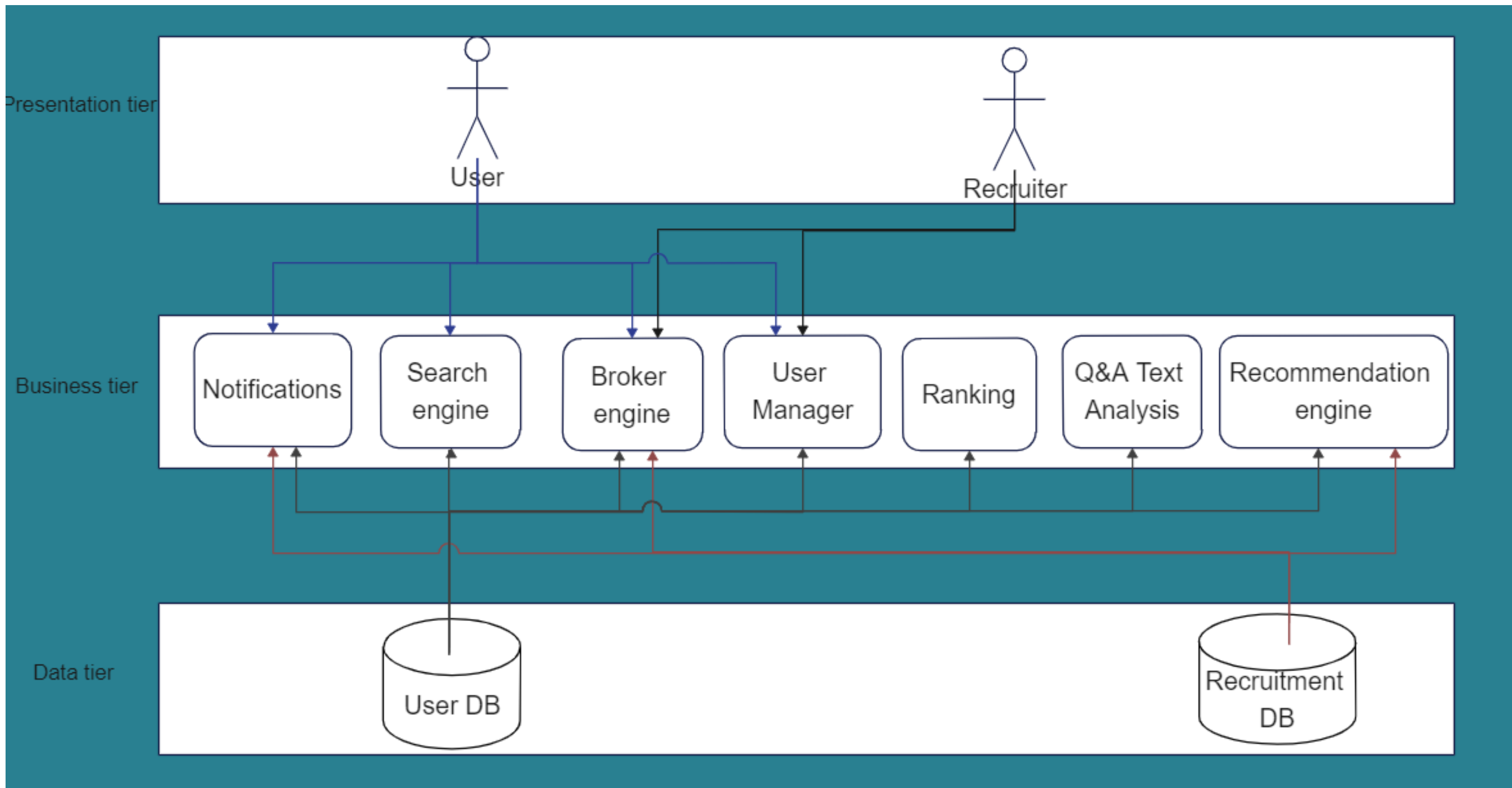
Database: MongoDB.

Software Used:

- Visual Studio Code used for python code.
- Postman to test the API's.
- Google Chrome-browser.
- Microsoft excel.

Libraries:

- TensorFlow used in developing and training our model.
- Keras.
- Sklearn: for machine learning in Python.
- Nltk library for preprocessing .
- Numpy.
- Pandas for the Python programming language.
- React is a JavaScript library for front-end in implementation.
- Express is Nodejs library for server-side API implementation.
- Flask API is used for exposing our functionality as web services



Primarily Design

The website uses text analysis to analyze questions and extract the keywords used which will contribute in the classification of it into a specific topic, while the recommendation engine is used to send recommendation notifications to students with ideas about what courses to take according to the real-time market. It will include skills recommendations and jobs recommendations which will include job opportunities that are available to students that are a fit-match for it. Moreover, the broker engine is used for the matchmaking between the recruiter's specifications and the students' skills and qualifications. Lastly, the search engine is used by students to search for a specific topic-related question or by students to search for jobs with specific skills, or title taken as input. The list of jobs outputted will be ranked from highest match to lowest match.

Conclusion

To conclude, The goal of our system is to spread and expand knowledge. Although not all knowledge can be recorded in writing, a significant portion of it can be. In order to better understand one another, we want to bring together those who have information and those who need it. We also want to provide everyone with the ability to share their knowledge with the rest of the world without restrictions and support an efficient recruitment process.

We look forward to the improvement of students and raising their capabilities in all fields, in addition to making their inclusion in the labor market easier.

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