Alumni Networking and Online Career Guidance

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Abstract - In any circumstance, communication between graduates and the institution can be quite advantageous. Nowadays, there is no proper communication bridge between the alumni and students of the institution. Generally, when it comes down to getting a job or cracking a master's degree, students are biased towards the former due to lack of communication and exposure. As a result, students show less awareness towards the technical world and fail to keep up with the expectations of employers. So, they need a common platform to communicate.

Keywords: Natural Language Processing (NLP), Virtual Private Network (VPN), Customer Relationship Management (CRM), Cascading Style Sheet (CSS)

I. INTRODUCTION

This paper presents a platform between students and alumni of the institution which is helpful for the student for their career and their higher studies. Alumni bring experience, contacts, and ideas to the classroom that faculty may not be able to impart. Colleges rely on alumni to provide mentorship to students, which not only allows students to connect with alumni of the college but also learn about job prospects such as current industry trends, industrial events, internships, scholarships, and so on. Student can also come to know about what some MNC is expecting from them. However, given the flexible structure of such situated learning environments, the actual competencies that develop within students may extend those that are intended outcomes of the learning context [5].

II. OBJECTIVE

This paper provides a handy product with application that helps students to connect the network between alumni and student of the institution. The key objective is to enable students understand company hiring process by viewing the review given by alumni. The University's career information is worldwide, less relevant, ineffective, and inefficient, and the opportunities are limited, which can be attributed to the lack of a specific career system for each program's students [9]. For students who are doing their masters, they can know about test strategies, by reading the review. Open job opportunities and free courses are shared by staff [9]. Easy communication with alumni is enabled for further reference. The particular context of this investigation is a nationally recognized, engineering-focused, vertically-integrated, multidisciplinary service-learning program known as Engineering Projects in Community Service (EPICS) [6].

Higher education, and especially engineering education, has to be developed to consider highly-demanded skills such as critical thinking, team-working, and interpersonal skills in addition to the traditional background knowledge [1][2].

III. EXISTING SYSTEM

The existing system provides a solution by offering assistance and assisting students in choosing an engineering subject and career path, as well as providing an optimal solution for gathering and managing alumni data. The existing system has some drawbacks that has to be concentrated and could be used for reference of a new system.

- There is no involvement of human help for mentoring the students.

- Less efficiency as modern and updated technology is not used.

- No direct communication between students and Alumni.

- They are only mentoring the students and no extra pointers are provided.

IV. PROPOSED SYSTEM

Proposed system is to design a platform that connects alumni and students. It is a website-based application, initially, all the students and alumni have to give their information during the registration process. Students and alumni information is kept in a separate profile. And then, alumni have to share their placement experience. Alumni applying for higher studies, share their examination (GRE, TOFEL, IELTS) experience. Feedback given by each alumnus will be displayed in the portal. Students can view feedback and be ready for the placement or higher study preparation. Faculty can also create an account and the purpose of the faculty is to share information about free courses, job opportunities and other placement related activity. The advantages of the proposed system are:

- Students can know the cracking strategies for the company interview or exam by viewing the feedback given by alumni.

- Students can easily communicate with the alumni of the college.

- Faculty can also share the information regarding free courses and placement.

- If any alumnus launches their start-up, they can easily hire a student from the college.

- Alumni information is stored in the cloud. So, we can retrieve their information at any time we want.

VI. SYSTEM DESIGN

- Initially, alumni, staff, and students have to create an account for them by giving their personal information.

- The data is stored in MongoDB atlas (database).

- Alumni share their feedback about the company in case and work experience.

- The staff shares any open job opportunity and free available courses on any platform.

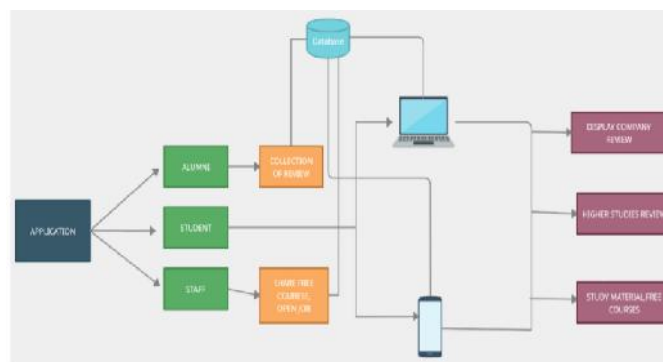- Finally, the information shared by Alumni and staff are displayed for students.

Fig 1: System Architecture

VII. SYSTEM IMPLEMENTATION

- Frontend development

- Creating backend API

- Extracting data and integrate with front end

A. Front end development:

The entire project highly depends upon the software. The software set consists of HTML, CSS, REACTJS, BOOTSTRAP. Our basic idea of development is to build a platform where alumni and students of a particular institution or college can easily communicate. Through this student can easily choose their career option or higher studies by getting guidance from the alumni. Staff can also present on this platform. Initially, we have developed the login page, where the user has to give their personal information like username, name, password, department, year of study. If he\she is an alumnus then they have to give additional information like company name, LinkedIn ID, years of experience. This is called a landing page and is created using HTML, CSS, BOOTSTRAP. After giving the information a unique account is created for each user. By using their username and password they can log in to their account. If a student has logged in then they are redirected to the placement and higher studies query page. In addition to that, there is a separate link for meetups. After clicking the placement query page, a list of the companies is displayed, for example, TCS, CTS, Accenture, etc. If they are clicking the higher studies page then a list of exams for MTech, MS, MBA is displayed, for example, GRE, TOEFL, etc.

B. Creating backend API:

The backend Application Programming Interfaces (APIs) are created using the following stack:
- Node Js, which is a Runtime environment for executing Js code, outside of browser.

- Express, which is a minimal and flexible Node.js web application framework that simplifies building common web server tasks.

- Mongoose, which provides a straightforward, schema-based solution to model the application data will connect our backend to a MongoDB database.

The CRUD operations such as create, read, update and delete functionality are implemented using REST APIs - Representational State Transfer. The data entered and retrieved by the users like Alumni, Students and Staff are handled by multiple types of calls, and return different data formats with the help of REST APIs. All these APIs are tested and developed with the help of an API client called Postman. The Signup and Login feature of the web page is created using Passport which is an authentication middleware of Node Js.

C. Extracting data and integration with front end:

The data stored at the backend will be retrieved in JSON format. JSON stands for JavaScript Object Notation. It is a lightweight format for storing and transporting data and often used when data is sent from a server to a web page. It is an open standard file format and data interchange format that uses human readable text to store and transmit data objects consisting of attribute-value pairs and arrays. JSON is a very common data format, with a diverse range of applications, one example being web applications that communicate with a server. The data such as placement reviews, feedback entered by the alumni and details entered by the staff will be retrieved from the database by the concept of Fetch API which provides an interface for fetching resources. The fetch() method takes one mandatory argument, the path to the resource you want to fetch. The fetched data will be displayed by JavaScript logics performed with the help of templating engine called ejs which renders the webpage content at the front end.

Fig 2: Placement Review

Fig 3: Higher Studies Query
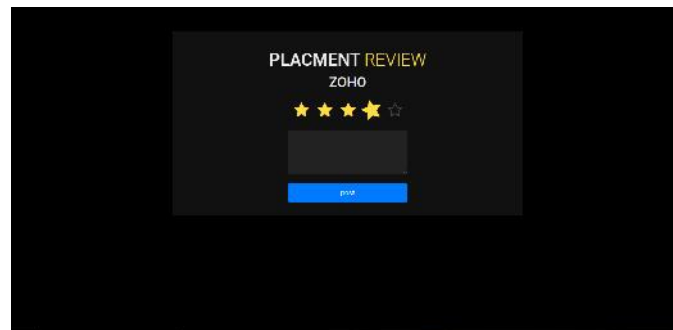
Fig 4: Company Rating

VIII. CONCLUSION

The system is developed for mainly sharpening the communication between students and alumni by providing career guidance in this digital era. We see many institutions encouraging students to actively engage in alumni meetings and meetups but we felt that a good platform with all the facilities to communicate with alumni and listen to their feedback to follow their success steps could ease their activities in upskilling their career. Hope that we fulfilled the mentioned parameters. We will actively listen to the feedback and future enhancement will also be made based on the user's suggestions.

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