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Dynamic Online Job Portal using MERN Technology

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ABSTRACT:-In today's generation, most of the people uses technology for leading their lives and managing their daily needs. In this era, most of people are using websites or web-application for searching jobs[1]. We have developed aplatform by using MERN stack technology . The components of mern stack are MongoDB, Express.JS framework, React.JS library, Node.JS platform. This application is fully functional with different aspects for candidates and recruiters. By using this platform ,we can find all kind of part-time jobs and we can choose any kind of job based on our interests. In this paper, we can post various jobs or delete them. We have developed administrative functions for this application like the dashboard, and manage roles for recruiter and candidate with resume builder. For users, they can quickly apply for the job, as per qualification recruiter can hire them.

KEYWORDS: *JavaScript, Framework, Library, React.js, Mongo DB, Node.js, Express.js,etc.*

I. INTRODUCTION

We all know that technology has become an indispensable part of our daily life. If we see most of the people are showing interest in finding jobs online. Many people don't know where are the requirements and for which job roles. In our country, people are not aware of part-time jobs as compared to other countries so this application will help to know about part-time jobs. For instance, there are job vacancies for some part-time job roles but people could not reach on time, so he lost that chance will be a bad experience for him/her. By encountering all the problems of offline part-time job searching creating a platform is necessary for searching for a part-time job. We all know that there are many online applications and websites to find a job for graduates but there are few applications that help to find part-time jobs for college students, senior citizens, housewives women, students, working professionals, teachers, freshers, beginners, retired persons, teenagers, and so on. This application will help people to find all kinds of online and offline part-time jobs without investment. The fundamental concepts of the MERN stack are thoroughly described along with the innovatory features as well as their usage in the application as to how we can develop a highly optimized website that can load quickly and ensure complete security from cyber threats like SQL injection. The MERN stack is regarded as one of the most dominant technology stack that is used to shape a full-stack application. MERN stack is an abbreviation for a complete collection of certain frameworks utilized to develop an entire dynamic web project. It expands as follows: - MongoDB: - For Database: A document-based database.

Express.js: - For back-end: A server-side JavaScript-based web application framework

React.js: -For front-end: A client-side JavaScript-based web application framework

Node.js: -For server-side runtime environment: It is a JavaScript-based server-side runtime environment.

II.RELATED WORK

MarjanManosourvar and Norizan Binti MohdYasimhave focused on improving the education environment by developing knowledge sharing system that acts as a job portal[1]

Pooja T.killewale and A.r.Munehave developed a web application with maximum security. They have used OTP for each admin login. They have used asp.net with SQLserver [2]

Aman shakya have proposed an application system that will automate the job recruitment process to find a better job. Their application has the functionality of viewing the job and saving it to apply later and an update is given through email which is based on student search history.

III.LITERATURE SURVEY

Sr. No	Title	Author Name	Year	Publication
1	Effectiveness of online job recruitment system	Mary Grace,G. Ventura and Rex P. Bringula	2013	International journal of computer science
2.	Entity Name Recognition in job Posting and Resumes	Sedu Kul,Ahmet Sayar	2021	International congress on human-compurt interaction and robotic application
3.	A web application for geographically distributed multiple clients	Vivek Kumar ,SehgalAkshayJagtiani,Meha Shah, Anupriya Sharma, Arpit Jaiswal and Dhanjay Mehta	2013	First International Conference on Artificial Intelligence, Modelling and Simulation.
4.	Improving the accuracy of job search with semantic techniques	Malgorzata mochol ,holgerwache and lyndonnixon	April 2017	Conference paper

5.	International Web Application for skill development amd job application	G.AdilineMacriga;J.ArunaJasmine;V Vijay Babu;N Mohamed Sayhanuddin	2021	4th International Conference on Computing and Communications Technologies (ICCCT)

IV. STUDY OF THE EXISTING MODELS/WORK

In the present day and age, innovation is developing at a fast speed. With the new innovations of equipment gadgets and frameworks, it is normal for programming improvement innovations to progress too, effectively supplanting the old innovations. Because of the expanding number of electronic gadgets that utilization the Internet and their constant nature of things, execution is critical. Generally, web improvement has been finished utilizing advances.

A famous improvement style that utilizes the V8 motor in a successful way is the MERN stack. The MERN stack enjoys the benefit of Node's bundle environment, npm(node bundle supervisor) which the biggest biological system of open source libraries. Hub uses JavaScript as its programming language for both server and customer sides.

MongoDB is the data set used to store the information that the application needs to run, React is the front-end application running on the customer side, and Express is a lightweight HTTP(hypertext move convention) server system used to help the React application and the assets it needs to run the application, and Node.js is the climate used to run.

V. ARCHITECTURE FOR THE PROPOSED SYSTEM

The MERN.js is designed or developed to make a vigorous framework that allows developers to use efficient practices while they are working with the popular JavaScript components, which in turn helps in supporting usual development needs, and solving common issues by connecting to MongoDB, Express.js, Node.js, AngularJS frameworks. The whole application is going to be built on a NodeJS platform which is the runtime environment of JavaScript.

- ReactJS is a client-side application that is in HTML. So, at first, the client's request is processed.
- After that, the client request then enters the server (Node.js). Node.js acts as a server-side language written in JavaScript.
- ExpressJS then makes the request to the database.
- After receiving a request, MongoDB then retrieves the data and returns the response back to the ExpressJS.
- The response from Express.js is sent back to the Node.js, after which it is forwarded to the ReactJS by Node.js for displaying the final result
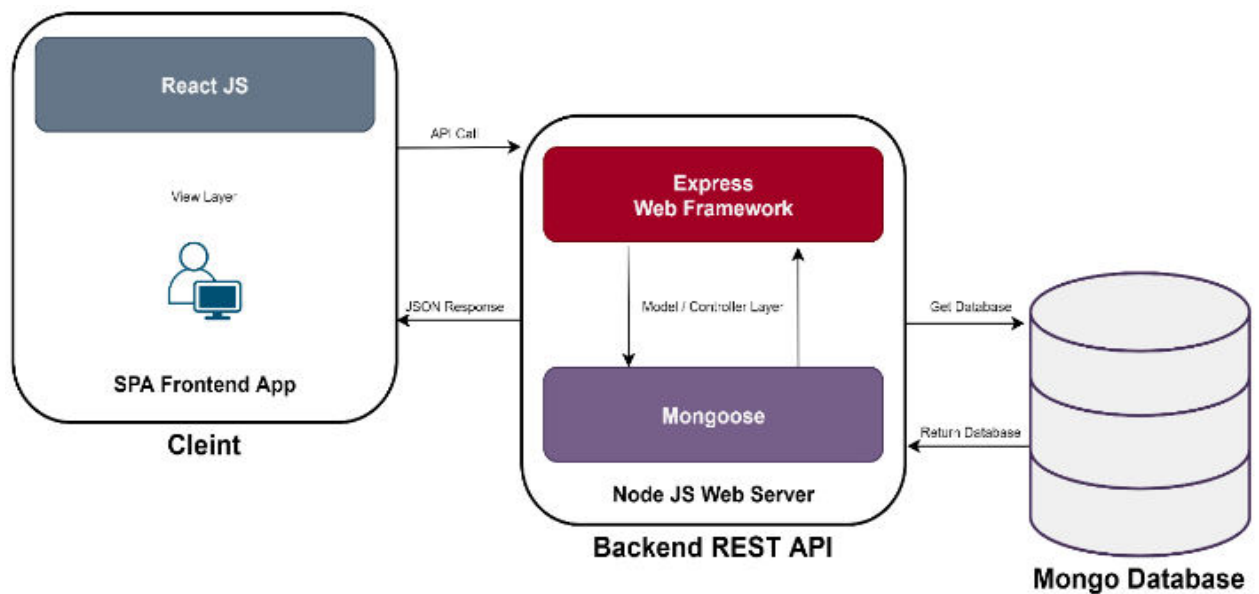
Fig. Architecture of proposed system

VI. ARCHITECTURE OF Node.js

Node.js can handle multiple requests fast and easily. It needs less memory and resources to handle requests. nodejs handle all the requests one by one, so it doesn't need many threads.
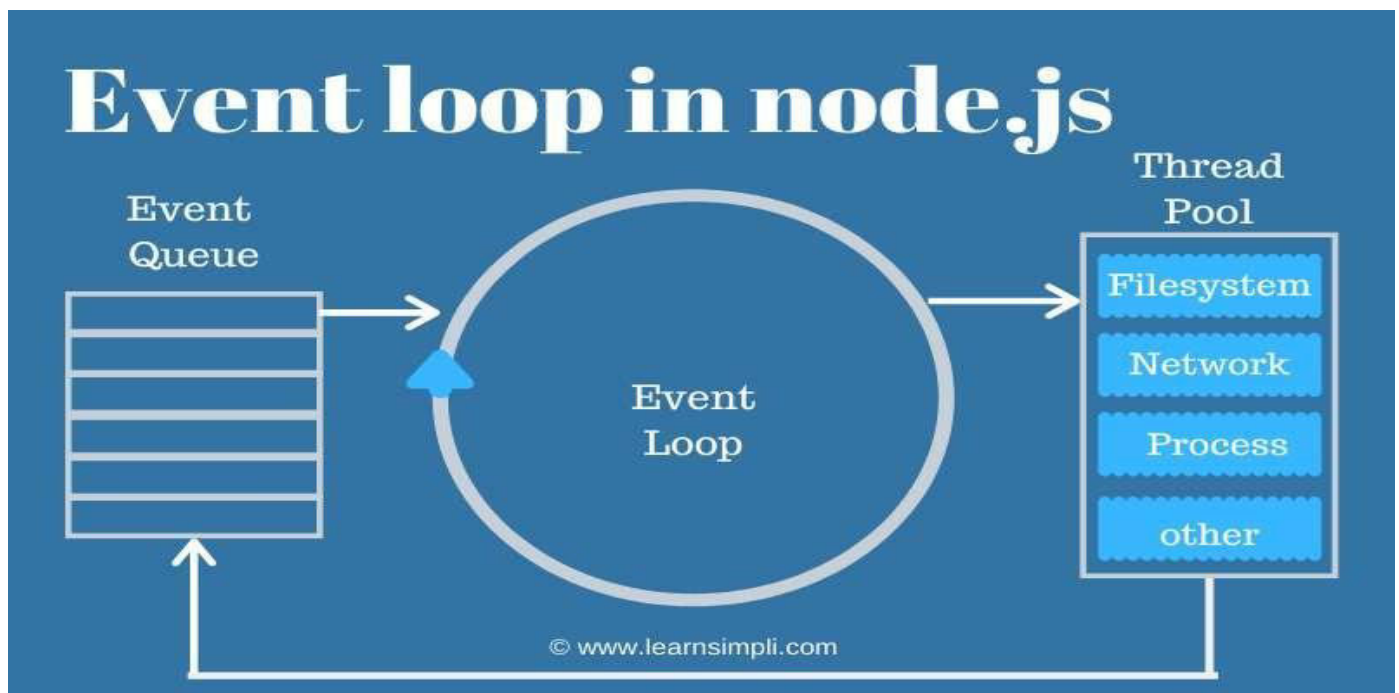

Fig. Architecture of Node.js

VII. ARCHITECTURE DESCRIPTION (MongoDB)

It stores data (user profile , uploads , events etc).

In MongoDB, data is represented as a collection of JSON documents. JSON documents created in Frontend React.js and ExpressJS server.

MongoDB's querying process is object-oriented, which basically means we can pass MongoDB a document

explaining whatever needs to be queried. Joints are not supported by MongoDB, however, it usually supports

multi-dimensional data types, which include documents and arrays.

MongoDB will only have a collection of different comments and a collection of posts present within a post

One of the noteworthy feature of MongoDB is that we don't have to define Theschema of database.

VIII. ARCHITECTURE DESCRIPTION (ExpressJS)

Express.js has powerful model for URL routing and handling requests and responses. By making XML HTTP

requests or GETs or PUTS from React.js Frontend, we can connect Express.js functions. After CURD

operations, the APIdata is finally retrieved from the MongoDB and then finally send to theUser.

Create (POST) – Make something

Read (GET)- Get something

Update (PUT) – Change something

Delete (DELETE)- Remove something

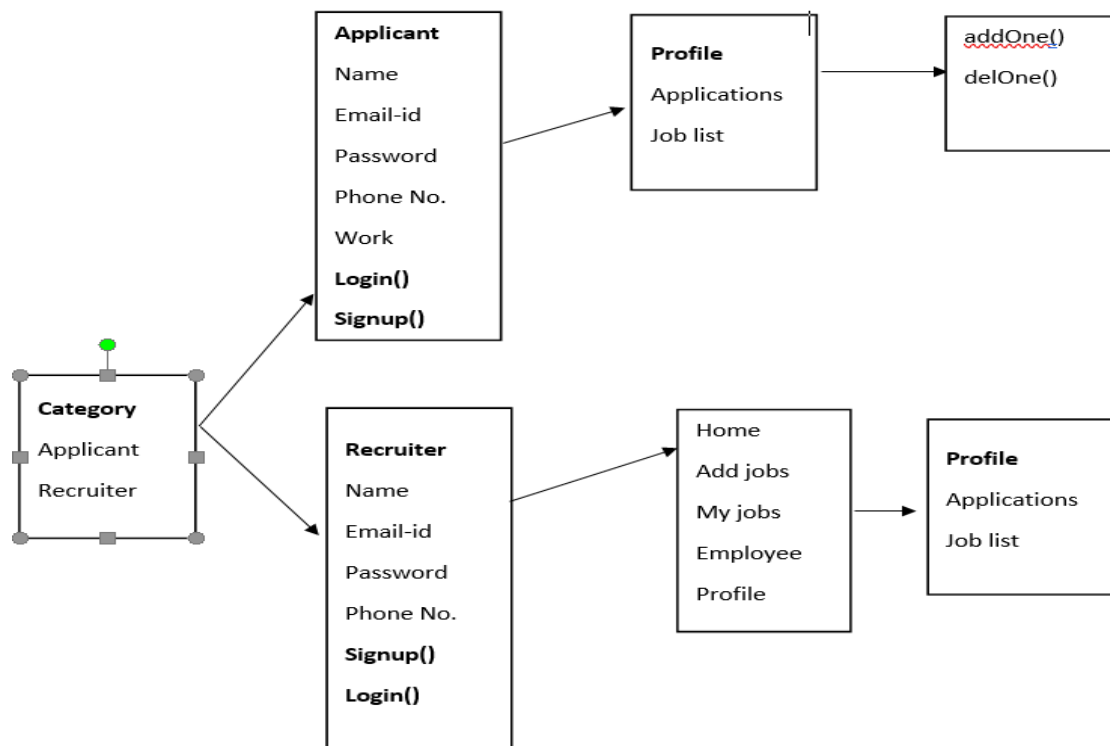## IX. PROPOSED SYSTEM ARCHITECTURE

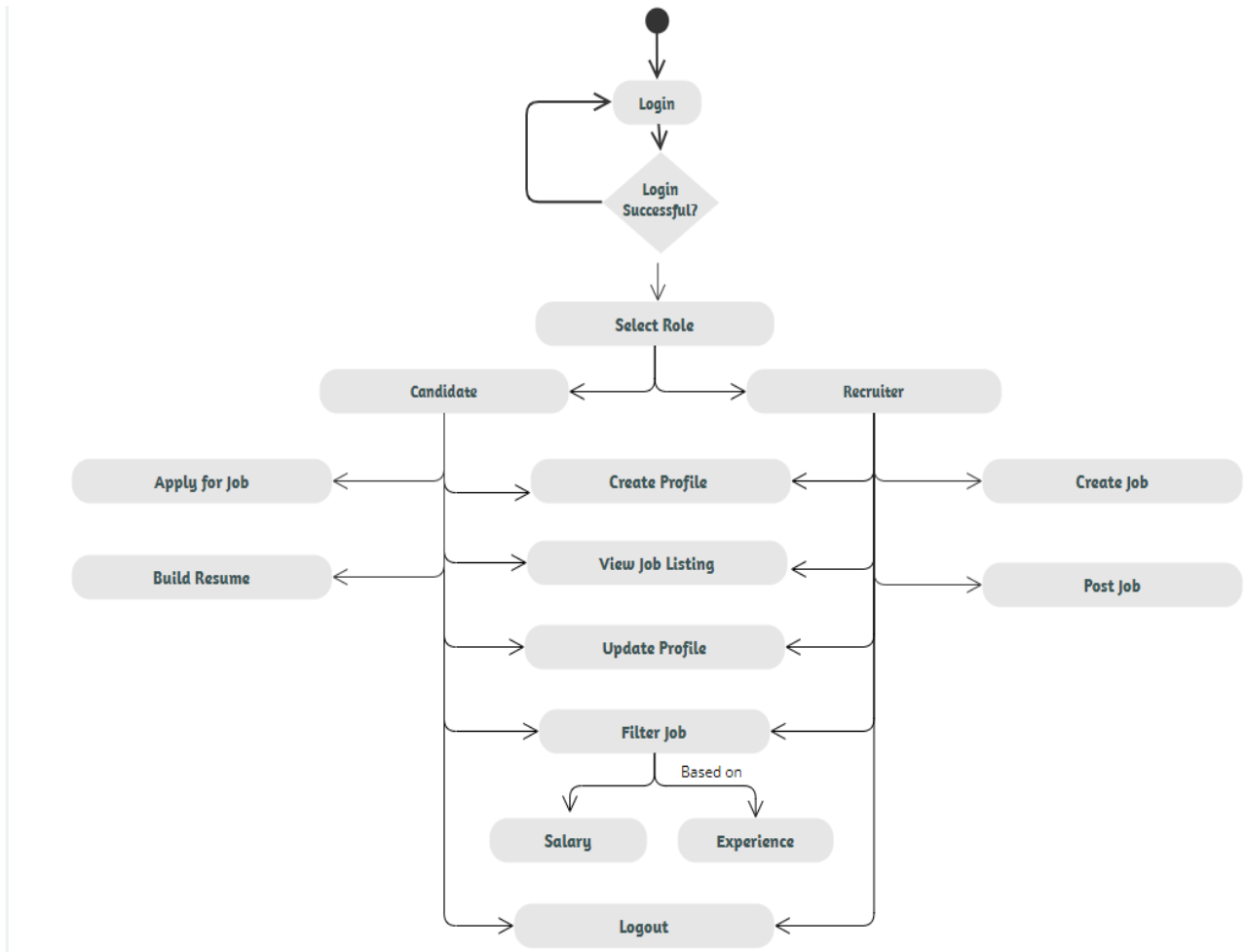Fig. proposed system architecture

X. ACTIVITY DIAGRAM

Fig. Activity Diagram

XI. CONCLUSION AND FUTURE SCOPE

This system has been developed well incorporate all the requirements Appropriate care has been taken during database design maintain database integrity and to avoid redundancy of data. This project was intended to help tackle the part-time job search issues among the youth by means of providing an online requirement portal. The finding from the pilot study shows that there is demand for such a system. This site was developed in such a way that any further modification needed can be easily done. In this many people lost their jobs also they don't get their full salaries so this portal will help them to get the part-time jobs and this has become a trend among students to do part-time jobs. Machine learning module can be added to search engine and will show the user matched searching text. Video resume uploading and pre-recorded interviews videos will help to improve the platform.

REFERENCES

[1] Salathiel Bogle1 and Suresh Sankaranarayanan2, (2012)"Job search system in android environment application of intelligent agents."International Journal of Information Sciences and Techniques (IJIST) Vol.2, No.3.
[2] ThirupathiChellapalli and D.V. Srinivas Kumar,(2018) "A Study On Online Recruitment (E-Recruitment) Portals Adoption" IUJ Journal Of Management.
[3] Pooja T. Killewale, (2017) "A Review on: Job Portal- A Web Application for Distributed Clients" International Journal of Advanced Research in Computer and Communication Engineering, Vol. 6, Issue 5, ISSN 2278-1021.

[4] MarjanMansourvar and Norizan Binti Mohd Yasin, "Development of a job web portal to improve education quality," International Journal of Computer Theory and Engineering, Vol. 6, No. 1, February 2014.

[5] Kopuri, G.M.H. Aqueel, A.S. Jabeen, T.K. Shaik Shavali, "A Online Job portal management system", International Journal of Innovative Research in Technology, Vol. 3 Issue 9, February 2017

[6] S. Susila Sakthy;G.AdilineMacriga;J.ArunaJasmine;V Vijay Babu;N Mohamed Sayhanuddin International Conference on Computing and Communications Technologies (ICCCT)

[7] Smart Evaluation for Job Vacancy Application SystemNoraziahAhmad;AhmedN.AbdAllaand International Conference on the Applications of Digital Information and Web Technologies.

[8] Web Development and performance comparison of Web Development Technologies in Node.js and PythonSai Sri Nandan Challapalli;PrakarshKaushik;ShashikantSuman;Basu Dev Shivahare;VimalBibhu;Amar Deep Gupta2021 International Conference on Technological Advancements and Innovations (ICTAI)

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