INTERNWAY
A

Report submitted in partial fulfillment of the requirement for the

degree of

B.Tech.

In

Computer Science & Engineering

By

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DECLARATION

This is to certify that Report entitled "**INTERNWAY**" which is submitted by us in partial fulfillment of the requirement for the award of degree B.Tech. in Computer Science and Engineering to Pranveer Singh Institute of Technology, Kanpur Dr. A P J A K Technical University, Lucknow comprises only my own work and due acknowledgement has been made in the text to all other material used.

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CERTIFICATE

This is to certify that Report entitled "**INTERNWAY**" which is submitted by **Sana Parveen (1901640100232), Pranjal Sharma (1901640100199), Aditi Thakur (1901640100023), Shivang Mishra (1901640100265)** in partial fulfillment of the requirement for the award of degree B.Tech. in Computer Science & Engineering to Pranveer Singh Institute of Technology, Kanpur affiliated to Dr. A P J A K Technical University, Lucknow is a record of the candidate own work carried out by him under my/our supervision. The matter embodied in this thesis is original and has not been submitted for the award of any other degree.

Date:

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ABSTRACT

The main aim of this project is that we are on the mission of resolving a crisis for a lot of small and medium enterprises, who are trying to recruit interns for their projects. This project's platform aims to onboard new interns, who have applied to the companies and help them understand the process and make the transition smooth. This platform is the best gateway to show recruiters, what interns are capable of and this all is possible by bridging the gap between the small enterprises or the company's recruiters and the Developers or the Interns that are hired by the respective companies.

The plight of small and medium companies has gravely wounded the world with serious consequences impacting all the onboard new interns, developers, full-time roles, and individuals during their recruitment phase. To solve these issues and to show a brilliant path to all the individuals listed we proudly present **Internway**, a platform for Internship Onboarding, Projects Management, Learning, Recruiting, and many more... for students, interns, developers, who are looking actively for Internship and full-time roles now.

In this project, we are going to have a setup for every individual intern by providing their account section, i.e., Profile, likely and show others that you are ready to work on a particular stack by joining their company as an Intern. To guide you better, we are also planning to introduce Learning pages, Application Tracking Systems,and Live Interactive Sections on YouTube by our well-qualified mentors to keep you updated.

This program helps the intern, interact with the Recruiters & Managers, effectively by providing social media handles. Also, the interns get a chance to exhibit their work by sharing their GitHub, LinkedIn profiles with their recruiters.

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LIST OF ABBREVIATIONS

HTTP	Hyper Text Transfer Protocol
DB	Database
POS	Point of Sale
MERN	Mongo DB, Express, React, Node
HTML	Hypertext transfer protocol
CSS	Cascading Style sheet
JS	JavaScript
SWOT	Strength, Weaknesses Opportunities and Threat
RAM	Random Access Memory
JSON	JavaScript Object Notation
IDE	Integrated Development Environment
SQL	Structured Query Language
API	Application Programming Interface

CHAPTER 1

INTRODUCTION

MERN Stack Full Form is MongoDB, ExpressJS, ReactJS, NodeJS.
MERN Stack is a compilation of four different technologies that work together to develop dynamic web apps and websites.

It is a contraction for four different technologies as mentioned below:

M - MongoDB
E - ExpressJS
R - ReactJS
N – NodeJS

MERN Stack is a Javascript Stack that is used for easier and faster deployment of full-stack web applications. MERN Stack comprises of 4 technologies namely: MongoDB, Express, React and Node.js. It is designed to make the development process smoother and easier.

Each of these 4 powerful technologies provides an end-to-end framework for the developers to work in and each of these technologies play a big part in the development of web applications.

MERN stack is a collection of technologies that enables faster application development. It is used by developers worldwide. The main purpose of using MERN stack is to develop apps using JavaScript only. This is because the four technologies that make up the technology stack are all JS-based. Thus, if one knows JavaScript (and JSON), the backend, frontend, and database can be operated easily.

The first component is **MongoDB**, which is a NoSQL database management system.

The second MERN stack component is **ExpressJS**. It is a backend web application framework for NodeJS.

The third component is **ReactJS**, a JavaScript library for developing UIs based on UI components.

The final component of the MERN stack is **NodeJS**. It is a JS runtime environment, i.e., it enables running JavaScript code outside the browser.

As people's dependency on technology grows, so does the demand for effective web and mobile applications. As a result, software developers explore different approaches to achieve a better user experience. For example, even when there is a lot of network congestion, the user wants a better UI and a faster response time for HTTP requests. As a result, stack technology is introduced, which creates a responsive and interactive UI and makes the development process much easier. For these reasons only we have used thus technology in our project.

We have made the UI of our project using the ReactJS code, and provided the backend part using the ExpressJS. Along with this we have used the MongoDB Atlas as a Database Management System. We will store all of our data in this database which includes the credentials of the Interns as well as the Developers also of Companies. Further Postman is used as an API of our project in which it will act as a interface between the frontend and the backend part of the Project. We have used this API to do the overall testing if the data that will be stored in the database of our project.

Here is some of the Features that is made in our project:

- The user visits our React-based landing page.
- The user login or registers to access their user dashboard, where they can see all the courses provided by the website.
- The company can log in to the admin dashboard using their credentials. The admin dashboard provides facilities to onboard interns.
- While on the backend, ExpressJS looks for the hit endpoint and calls the appropriate controller function to fetch the data.
- We can use mongoose in the controller to query the database, retrieve the data, and return in JSON format.
- The JSON data is sent back to React, which updates the state with the fetched information.
- That's how MongoDB, React, Express, and Node interact.

CHAPTER 2
EVOLUTION OF TECHNOLOGY

2.1 Language Description

2.1.1 ReactJS

The ReactJS framework is an open-source JavaScript framework and library developed by Facebook. It's usedfor building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript. It is an open-source, component-based front-end library responsible only for the view layer of the application. It is maintained by Facebook. Moreover, ReactJS makes Front-enddevelopment very easy.

Figure 1

2.1.2 NodeJS

Nodejs is primarily used for non-blocking, event-driven servers, due to its single-threaded nature. It's used fortraditional web sites and back-end API services, but was designed with real-time, push-based architectures in mind. It is an open-source and cross-platform runtime environment for executing JavaScript code outside a browser. You need to remember that NodeJS is not a framework and it's not a programming language.

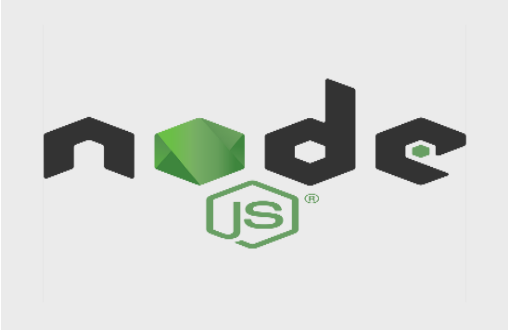

Figure 2

2.1.3 MongoDB

MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas. MongoDB is developed by MongoDB Inc. and licensed under the Server-Side Public License which is deemed non-free by several distributions. It is a document database used to build highly available and scalable internet applications. Withits flexible schema approach, it's popular with development teams using agile methodologies.

Figure 3

2.1.4 ExpressJS

Express.js, or simply Express, is a back-end web application framework for Node.js, released as free and open-source software under the MIT License. It is designed for 14 building web applications and APIs. It hasbeen called the de facto standard server framework for Node.js.

Figure 4

CHAPTER 3

MODEL DESCRIPTION

The Model-View-Controller (MVC) is an architectural pattern that separates an application into three basic components: the model, the view, and the controller. Each of these components are built to handlespecific development aspects of an application. MVC is one of the most frequently used industry- standard web development framework to create scalable and extensible projects.

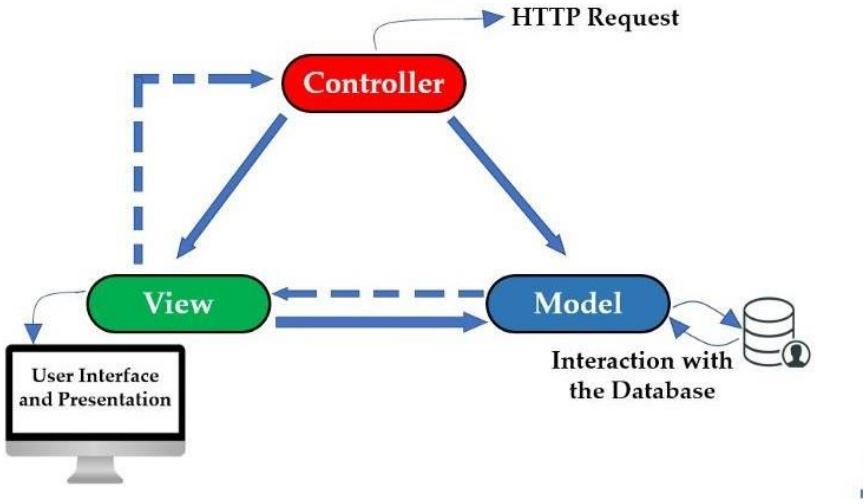

Figure 7

Let's discuss about the three basic logic components in a little bit more detail:

1. Model:

- manages the behavior and the data of the application domain.
- responds to requests for information about its state (usually from the view).
- responds to instructions for state change (usually from the controller).
- In event — driven systems, the model notifies observers (usually views) when the information changes so that they can react.

2. View:

- renders the model into a form suitable for interaction, typically a user interface element.
- Multiple views can exist for a single model for various purposes.
- A viewport typically has one to one correspondence with a display surface and knows how torender to it.

3. Controller:

- receives user input and initiates a response by making calls on model objects.
- A controller accepts input from the user and instructs the model and viewport to perform actionsbased on that input.

Brief Introduction to the MERN Stack

The MERN Stack is a JavaScript Stack that is used for easier and faster deployment of full-stackweb applications.

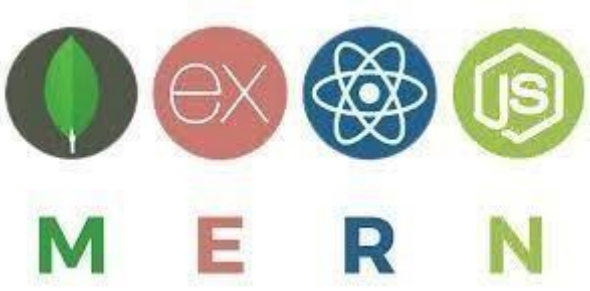

Figure 8

The MERN stack consists of the following technologies:

- **MongoDB**: A document-based open-source database.
- **Express**: A web application framework for Node.js.
- **React**: A JavaScript front-end library for building user interfaces.
- **Node.js**: JavaScript run-time environment that executes JavaScript code outside of a browser(such as a server).

It is also common to use **Mongoose**, which is a simple, schema-based solution to modelapplication data.

MVC and MERN

MERN isn't an MVC framework in the traditional sense, because it spans both the server and browser. MVC can also be achieved by sticking to server-side templating in Node, and justsending the HTML to the browser and treating the browser as the View layer i.e., doing thingsthe way things have always been done forever.

Although, when React is combined with a JavaScript backend, then it is MVC. React serves asthe "**V**" in the **MVC**

- **Mongoose'** models define the data part. This is where we will store all of the crucial data our application needs to function.
- **Express & Node.js** does all the functional programming and will be used to write the Business Logic Tier (controller). This tier represents the Application Server that will act as a bridge of communication for the Client and Database. This tier will serve the React components to the user's device and accept HTTP requests from the user and follow with the appropriate response.
- **React** serves as the "**V**" in the **MVC.** Our client tier (View) will be written in JavaScript, HTML,and CSS, using **ReactJS** as the framework. This level of the architecture is what the user will interact with to access the features of our application**.**

With this, we come to the end of this article. in this article, we have discussed how the traditional MVC architecture is implemented in the very trending MERN Stack.

CHAPTER 4

USE CASES

- ## Login

  The existing user will have to login as it will be helpful to verify the user whether he/she is the Intern or the company employee.

- ## Register

  The new user will have to register on the website either as a Intern or as an Employee.

- ## About Us

This page consist of introduction about the website, value, mission, product and the services.

- ## Contact Us

The page contain information to get in touch with the website owner or support team, such as email address, Phone number or a contact form.

- ## User Dashboard

  After login process the Interns/Developers will select the user dashboard.

- ## Admin Dashboard

  After the login process the company employees can select the admin dashboard.

- ## User Profile Creation

  Interns will write their respective profile credentials such as name, email, experience, skills, mobile no. etc.

- ## Document Upload

  Interns will upload their Documents asked by the respective companies such as Marksheet, Identification Proof, CV, Resume, Certificates etc.

- ## View Work Progress

  Interns can see their work progress by the pie chart in the User dashboard.

- ## View Course

  Interns will see the courses uploaded by companies and will learn through it.

- ## Admin Profile Creation

  Company will write their respective profile credentials such as Company name, HR, Social Media Handles etc.

- ## Verification of Document

  Documents Uploaded by Interns will be verified by the Company.

- ## Course Upload

  According to the assigned project, the courses will be provided by the company.

- ## Logout

  User or Admin can Logout after they are done with their work.

CHAPTER 5
MERITS AND DEMERITS

5.1 Merits

5.1.1 **EASY TO USE**: It is a strong site navigation makes it easy for user to find the internships that interests them sans, a potential frustrating “hunt”.

5.1.2 **WORK FROM HOME**: With the comfort of Home if you want to gain professional experience on working with the real word projects then Internway is the right is the right place for you providing the internships in almost every field

5.1.3 **GENUINE INTERNSHIPS:** While searching for internships you might come across few sites with fake internships but Internway follow a straightened authentication process before posting internships.

5.1.4 **INTERNSHIPS FOR EVERYONE:** It’s an awesome platform for fresher as well as experienced interns who want to implement the knowledge of the skills they have gained into the practicality.

5.1.5 **TRAINING:** You will be trained fully by the company employees by providing the courses and notes.

5.1.6 **FREE INTERNSHIPS:** Without paying one is getting the internships.

5.2 Demerits

5.2.1 **STIPEND**: In many cases the employers (mostly from start-ups) do not pay the interns the mentioned stipend and often negotiate with them.

5.2.2 **WORKLOAD**: Do not be surprised if you are being asked to do something which is not mentioned in the “day-to-day responsibilities”!

CHAPTER 6

CONCLUSION

Finding the right internship or hiring the right intern can be a daunting task for both students and small enterprises. The recruitment process can often be disorienting and overwhelming, leading to a lack of understanding of the system and difficulties in finding the right talent. This can result in a significant amount of time and resources being wasted.

Internway is an innovative platform that aims to simplify the recruitment and onboarding process for both students and small enterprises. By providing an intuitive learning management system and performance tools, Internway ensures that students can learn new skills and become job-ready, while small enterprises can easily find skilled interns to fill their talent pipeline.

Internway bridges the gap between companies and students by providing a simple and robust user interface that facilitates efficient communication and onboarding. With Internway, students can register themselves, learn new skills as per their interests, and get ready to join the workforce with ease. Small enterprises, on the other hand, can find skilled interns with ease and ensure a seamless onboarding process.

Overall, Internway aims to make the recruitment and onboarding process a smooth sailing experience for both companies and students,thus creating a win-win situation for all parties involved.

REFERENCES

[1] King, D. N., & King, D. N. (2004). Introduction to e-commerce. Prentice Hall.

[2] Petersen, Jeremy (4 September 2008). "Benefits of using the n-tiered approach for web applications"

[3] Multiple (Wiki). "Web application framework". Docforge. Archived from the original on 2020-06-20. Retrieved 2010-03- 06.

[4] Alleman, Andrew (26 jully2007). "R.H. Donnelley Acquires Business .com for $345". Domain Name wire. Brain storm Labs, LLC. Archived from the original on8April2021. Retrieved 4 May2021.

[5] Chanana, N., & Goele, S. (2012). Future of e-commerce in India. International Journal of Computing & Business Research, 8. • Mai, N. (2020). E-commerce Application using MERN stack.

[6] Brown, Jeff, E-commerce strategies and practices" Editor Jill McKenna. Calf (2001)158 References 158.

[7] Bhimani, A, "Securing the Commercial Internet" Communications of the ACM, VOL 39, NO 6 G.

[8] European Communities, 2005, Swiss e- government still below expectations, survey reveals, E-Government News, March2005 (http://europa.eu.int/idabc/en/document/ 4025/5791, accessed June 7th 2006.