Summer Training Report

On

<MERN BY BRAIN MENTORS>

Submitted in partial fulfilment of requirements for the award of the

Degree of

Bachelor of Technology

Submitted By

Under the guidance of

AMIT SRIVASTAVA

YASH TYAGI

<INFORMATION TECHNOLOGY>
Bharati Vidyapeeth's College of Engineering, New Delhi – 110063, INDIA

August 2023

CANDIDATE’S DECLARATION

It is hereby certified that the work which is being presented in the B. Tech Industrial/In-house training Report entitled **"…RECIPE APP…."** in partial fulfilment of the requirements for the award of the degree of **Bachelor of Technology** and submitted in the **Department of** of **BHARATI VIDYAPEETH’S COLLEGE OF ENGINEERING, New Delhi (Affiliated to Guru Gobind Singh Indraprastha University, Delhi)** is an authentic record of our own work carried out during a period from **July – August 2023** under the guidance of AMIT SRIVASTAVA

The matter presented in the B. Tech Industrial/In-house training Report has not been submitted by me for the award of any other degree of this or any other Institute.

Student Name:

Enrollment No:

This is to certify that the above statement made by the candidate is correct to the best of my knowledge. He/She/They are permitted to appear in the External Industrial/In-house training Examination.

Trainer Name : AMIT SRIVASTAVA

The B. Tech Industrial/In-house training Viva-Voce Examination of

has been held on **………**

Industrial/In-house training coordinator **(Signature of External Examiner)**

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Introduction:

In the realm of technology, innovation knows no bounds. This summer, our team embarked on a thrilling adventure to merge the worlds of code and cuisine, resulting in the creation of a Recipe App using the dynamic MERN stack. Our final project for summer training was more than just lines of code — it was about solving real-world problems and creating a digital haven for food enthusiasts. Join us as we recount the challenges, solutions, and triumphs that shaped this exciting journey.

PROJECT IMPLEMENTATION

1. Execution of Tasks:Develop the frontend using React: Create components for home, recipe list, recipe detail, and user interaction features like comments and adding recipes.

Set up the backend using Express.js and Node.js: Implement routes for retrieving and adding recipes, handling comments, and user interactions.

Design the MongoDB database schema to store recipes and user data.

2. Resource Management:

Allocate developer resources for frontend and backend development.

Ensure availability of design assets, content, and any third-party APIs required.

3. Monitoring and Control:

Use project management tools like Trello or Jira to track tasks and monitor progress.

Regularly review code commits, conduct code reviews, and ensure adherence to coding standards.

4. Communication:

Hold regular team meetings to discuss progress, challenges, and updates.

Provide stakeholders with weekly status reports or presentations.

5. Quality Assurance:

Implement automated testing for both frontend and backend.

Conduct manual testing to ensure proper functionality of features.

Review and refine user interfaces for consistency and usability.

RESULTS AND DISCUSSION

As with any project, our journey came with its challenges that pushed our skills and determination to the limit.

Real-time Updates: Implementing real-time updates using React posed its own set of challenges. With rigorous testing and close collaboration, we successfully integrated live updates into our user interface, enhancing user engagement.

Connecting FrontEnd and BackEnd

Coordinating the FrontEnd and BackEnd codes without breaking the website proved to be a real challenge to us. It took a lot of efforts and error solving to make it work.

TECH STACK USED

MERN is an acronym that represents a popular set of technologies used in web development to create dynamic and interactive web applications. Each letter in "MERN" stands for a specific technology:

1. *M - MongoDB:*

MongoDB is a NoSQL database that stores data in a flexible, JSON-like format called BSON. It is particularly well-suited for handling unstructured or semi-structured data, making it an excellent choice for web applications that require scalability and adaptability. MongoDB allows developers to store data as documents, which can vary in structure, unlike traditional relational databases.

2. *E - Express.js:*

Express.js is a web application framework for Node.js. It provides a set of tools and features that simplify the process of building robust and scalable web applications. Express.js offers a simple way to create server-side routes, handle HTTP requests and responses, manage middleware, and set up APIs. It acts as a bridge between the frontend and backend, ensuring smooth communication.

3. *R - React:*

React is a JavaScript library for building user interfaces. It allows developers to create reusable UI components and manage the state of an application efficiently. React utilizes a component-based architecture, where each component represents a part of the user interface. These components can be nested, combined, and reused to create complex and interactive UIs. React also supports a virtual DOM (Document Object Model) for optimizing updates and rendering speed.

4. *N - Node.js:*

Node.js is a runtime environment that enables developers to run JavaScript code on the server-side. It uses an event-driven, non-blocking I/O model, which makes it well-suited for building scalable and high-performance applications. Node.js allows developers to use the same programming language (JavaScript) for both frontend and backend development, promoting consistency and efficiency.

Together, the MERN stack offers a full-stack development solution, covering both the frontend and backend aspects of web applications. MongoDB provides the database layer, Express.js handles the backend logic and routing, React manages the frontend user interface, and Node.js powers the server-side operations. This stack is popular due to its flexibility, speed, and the ability to create real-time, data-driven applications efficiently. It's widely used by developers to build various types of applications, from simple websites to complex web platforms.

CONCLUSION

Navigating the Recipe App Implementation Journey

Creating the Recipe App using the MERN stack has been an exhilarating journey that exemplifies the fusion of culinary passion and technological innovation. As we conclude this project implementation, we reflect on the steps taken, the challenges conquered, and the outcomes achieved.

Our venture began with a vision to address the chaos of recipe organization in a digital age. Through meticulous planning, resource allocation, and collaboration, we transformed that vision into a reality that empowers culinary enthusiasts and home cooks alike.

From executing tasks that brought our user-friendly interface to life, to optimizing backend performance using Express.js and Node.js, every stage of the implementation process was guided by our commitment to quality and excellence.

Effective communication and stakeholder engagement were integral throughout the journey. By fostering transparent discussions and gathering feedback, we ensured that the Recipe App resonates with its intended users, catering to their needs and preferences.

As we embraced the challenges head-on, we discovered that innovation thrives in the face of adversity. Through collaborative problem-solving, we refined our real-time updates, optimized database scalability, and ensured a seamless user experience.

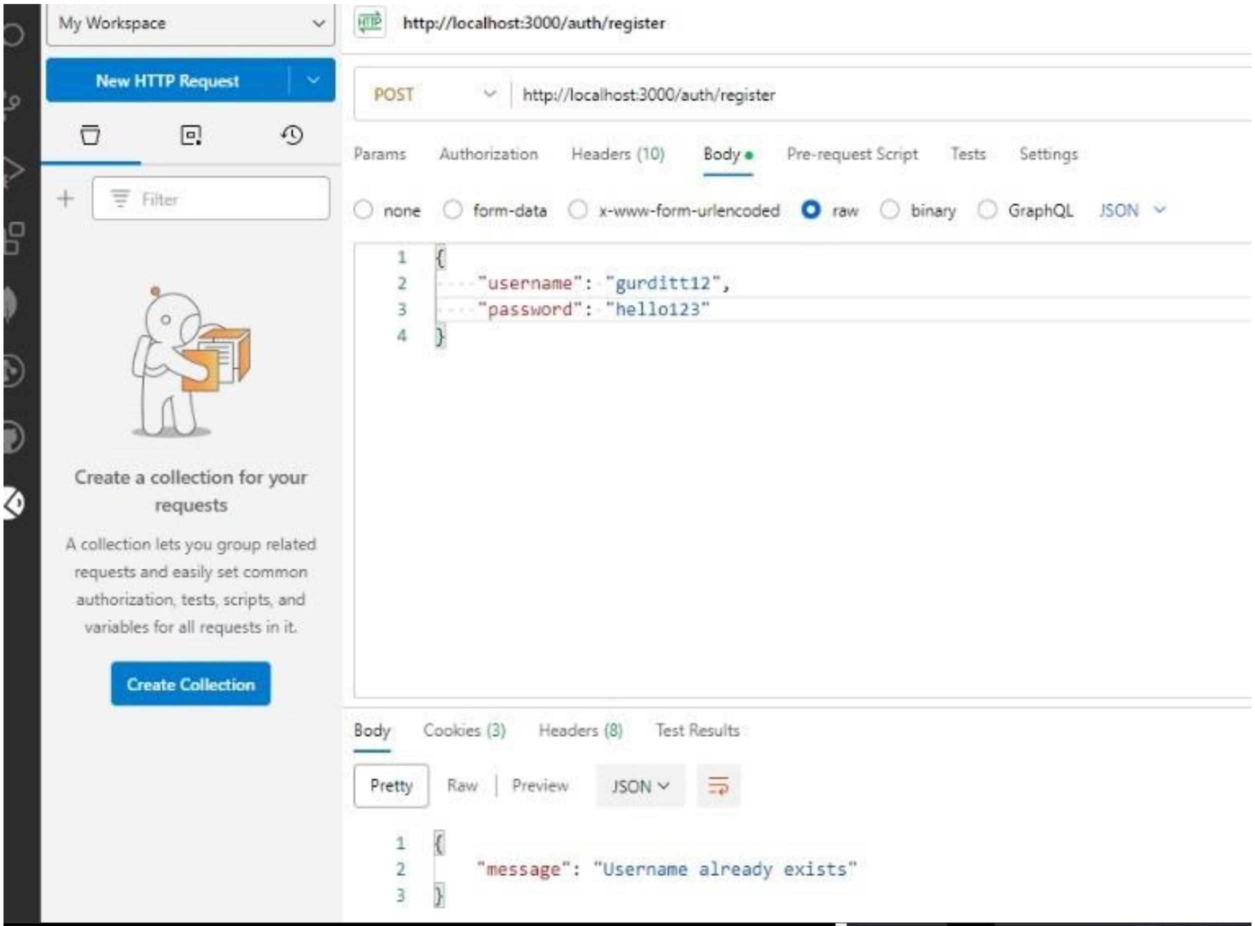
Our key takeaways extend beyond lines of code. We learned the value of team synergy, the art of innovation amid challenges, and the significance of user-centric design. With persistence and dedication, we have produced an application that not only satisfies culinary cravings but also reflects the harmony of technology and gastronomy.

As we bid farewell to the Recipe App's implementation phase, we embark on a new chapter – post-deployment maintenance and further enhancements. This is where the Recipe App truly comes to life, serving as a testament to our journey's success and the possibilities that emerge when creativity, collaboration, and commitment converge.

With a well-orchestrated symphony of MERN stack technologies, we have stirred our culinary passions into a digital masterpiece. As we celebrate the implementation of the Recipe App, we remain excited for the culinary adventures that lie ahead and the many ways in which technology will continue to enrich our experiences.

Image: A beautifully plated dish symbolizing the successful completion of the Recipe App implementation.

SCREENSHOTS


My Workspace
New HTTP Request
Create a collection for your requests
A collection lets you group related requests and easily set common authorization, tests, scripts, and variables for all requests in it.
Create Collection
Params
Authorization
Headers (10)
Body
Pre-request Script
Tests
Settings
Body
Cookies (3)
Headers (8)
Test Results
Pretty
Raw
Preview
JSON

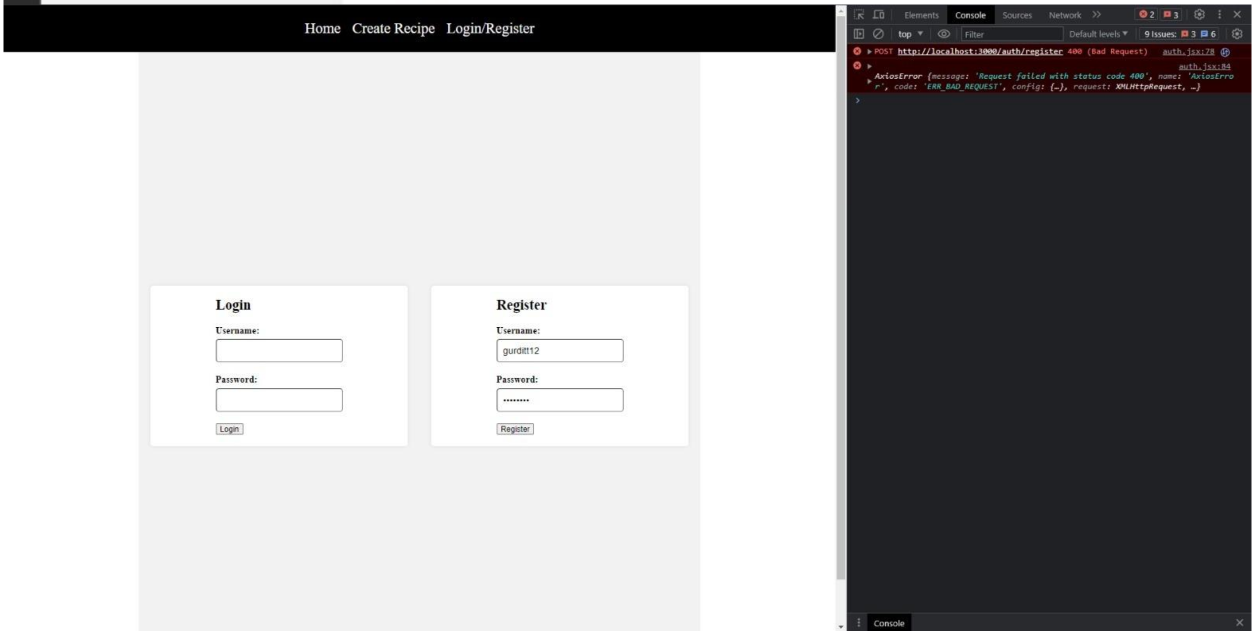
http://localhost:3000/auth/register

POST http://localhost:3000/auth/register

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

```
{
    "username": "gurditt12",
    "password": "hello123"
}
```

```
{
    "message": "Username already exists"
}
```



Login

Username:

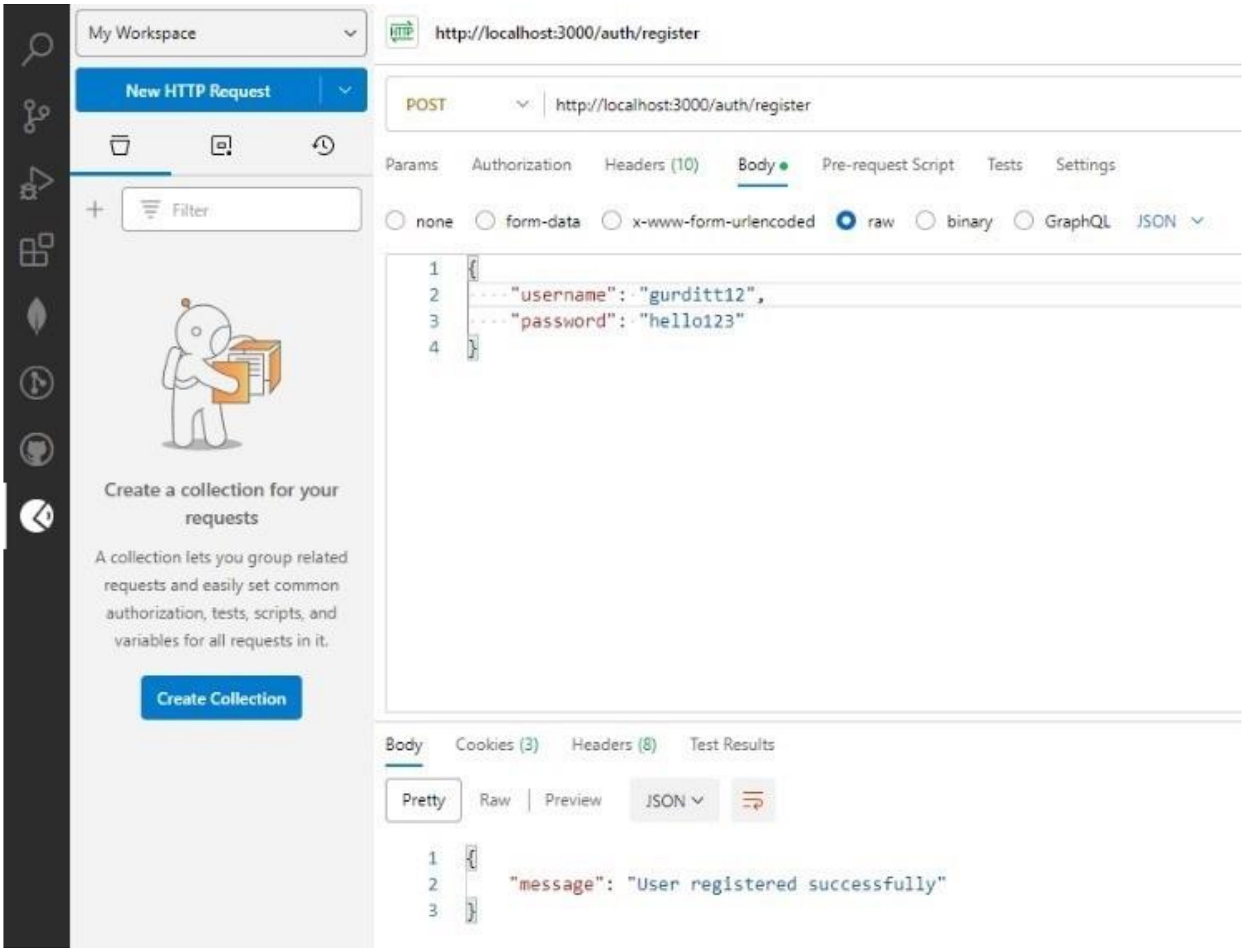
Password:

Register

Username: gurditt12

Password: ••••••••

```
POST http://localhost:3000/auth/register 400 (Bad Request)    auth.jsx:78
                                                               auth.jsx:84
AxiosError {message: 'Request failed with status code 400', name: 'AxiosError', code: 'ERR_BAD_REQUEST', config: {…}, request: XMLHttpRequest, …}
```



http://localhost:3000/auth/register

POST http://localhost:3000/auth/register

```
{
    "username": "gurditt12",
    "password": "hello123"
}
```

```
{
    "message": "User registered successfully"
}
```

---REFERENCES

https://www.skillrisers.com/

https://react.dev/

https://github.com/

https://nodejs.org/en

https://render.com

https://www.mongodb.com/