I have shared the project details that I have been part of including Roles & Responsibilities.

1. Project Name: O-LINE-O Nexus E-Commerce Web Application

Duration: January 2023 - March 2024

Tools Used:

Frontend: React.js, Redux, Material UI, Bootstrap, HTML5, CSS3

Backend: Node.js, Express.js

Database: MongoDB

Roles & Responsibilities

1. Frontend Development

1. UI Design & Implementation:

- a. Designed and developed the entire application's UI using **React.js**, **Bootstrap**, **Material UI**, **HTML5**, **and CSS3**, ensuring mobile responsiveness.
- b. Created end-user interfaces, including **Home**, **Cart**, **Products**, **Ratings**, **Retailers**, and **Checkout** pages.
- c. Built dashboards for **Admin** (Order management, Product CRUD, User activity tracking, Payment details) and **Retailers** (Order management with acceptance or rejection functionalities).

2. State Management:

a. Utilized **Redux** for efficient state management across the entire application.

3. Feature Implementation:

- a. Integrated features like **Infinite Scroll**, **Lazy Loading**, **and dynamic content rendering** for different user roles.
- b. Developed Login/Signup functionality using Email-OTP verification and JWT tokens for secure authentication.
- c. Implemented advanced product filtering on the Product page to enhance search and selection.
- d. Leveraged **WebSockets** for real-time notifications between users and the server.

2. Backend Development

1. API Integration:

- a. Integrated external APIs such as Brevo and E-Connect for **OTP verification** during user/retailer login or signup.
- b. Utilized **Shiprocket APIs** for order and delivery management and **PayU** for payment processing.

2. Event Handling:

a. Efficiently utilized **Event Emitters in Node.js** for communication between different parts of the application.

3. Real-Time Communication:

a. Implemented real-time communication between the client and server using WebSockets.

4. AWS Integration:

- Leveraged AWS S3 for storing product images and documents like invoices.
- b. Used **AWS CloudWatch** for logging and monitoring application activities.

5. API Development:

 Designed and tested APIs using **Postman** for robust backend development and debugging.

2. Project Name: O-LINE-O Nexus Deal Chahta Hai

Duration: August 2023

Tools Used:

Frontend: Next.js, Tailwind CSS, React.js, Material UI, Bootstrap, HTML5, CSS3, JavaScript **State Management**: Redux

Roles & Responsibilities

1. Frontend Development

1. Admin Dashboard:

- a. Built a responsive **Admin Dashboard using Next.js and Tailwind CSS**, with Redux for efficient state management.
- b. Created custom components using **Material UI and Bootstrap** to enhance user experience and maintain design consistency.

2. UI Design & Implementation:

a. Designed and developed multiple responsive user interfaces using HTML5, CSS3, and JavaScript, providing user-friendly and visually appealing designs.

2. Backend Development

1. API Integration:

a. Designed and integrated custom logic to manage prize distribution based on client specifications.

2. Database Query Optimization:

a. Improved query performance by implementing indexing in the **MongoDB** database for faster data retrieval.

3. Admin Dashboard:

a. Built a feature-rich admin dashboard to display prizes and user data with an option to export data as an Excel file.

3. Project Name: E-commerce Application for Dirums Collective

Duration: June 2022 - Oct 2022

Tools Used:

Frontend: React.js, HTML5, CSS3, Bootstrap

Backend: Node.js, Express.js

Database: MongoDB

Roles & Responsibilities

1. Requirement Gathering & Planning

1. Collaborated with the client to gather requirements and created comprehensive documentation and flowcharts for the **Spin & Win Game** flow.

2. Frontend Development

1. UI Design & Implementation:

a. Designed and developed a responsive UI using **React.js**, **HTML5**, **and CSS3**, tailored for tablet and mobile users.

2. Feature Implementation:

- a. Worked closely with designers to collect assets (images, fonts) for the Spin & Win Circle using **Figma**.
- b. Enhanced user engagement by implementing animations with **custom CSS** and developed a multi-step form to encourage user participation.

3. Backend Development

1. API Integration:

a. Designed and integrated custom logic to manage prize distribution based on client specifications.

2. Database Query Optimization:

a. Improved query performance by implementing indexing in the **MongoDB** database for faster data retrieval.

3. Admin Dashboard:

a. Built a feature-rich admin dashboard to display prizes and user data with an option to export data as an Excel file.

4. Project Name: Chat Application

Duration: August 2024 - September 2024

Tools used:

Frontend: React.js, HTML5, CSS3, Tailwind CSS, Redux

Backend: Django Database: MySQL

Roles & Responsibilities

1. Real-Time Communication:

 a. Implemented real-time interaction between the client and server using WebSockets on the frontend and ASGI on the backend, ensuring seamless and instantaneous messaging functionality.

2. Database Integration:

a. Integrated a **MySQL database** on the backend to store and manage chat logs, enabling efficient retrieval of messages between multiple users.

3. User Authentication:

a. Developed user login and signup features with robust authentication and authorization mechanisms using JWT (JSON Web Token).

4. Scalable Backend Architecture:

a. Optimized the backend to handle concurrent users efficiently, ensuring scalability and reliability for high-traffic scenarios.

5. Frontend Development:

a. Developed a responsive and interactive chat interface using React.js & Redux as state management, incorporating modern design principles for an engaging user experience.

6. Admin Dashboard:

a. Designed and built an intuitive **admin dashboard** to manage users, including features like account creation, role assignments, and activity monitoring.

7. API Development:

a. Created **RESTful APIs** for seamless communication between the frontend and backend, ensuring secure data transfer.

8. Session Management:

a. Implemented secure session handling and user activity tracking to improve overall application security and usability.

9. Error Handling and Logging:

a. Integrated error-handling mechanisms and logging tools to identify and resolve issues proactively during development and in production.

5. Project Name: Chatbot Development

Duration: September 2024, November 2024

Tools used:

Frontend: React.js, HTML5, CSS3, Bootstrap, Context APIs, WebSockets

Backend: Python, FastAPI, Langchain, Chainlit & Redis

Cloud: AWS S3

Roles & Responsibilities:

1. Research and Exploration:

a. Conducted in-depth research on Chatbot integration techniques leveraging advanced Large Language Models (LLMs) such as Ollama, Llama3, Groq, and OpenAI to identify the most effective solutions for real-time conversational AI.

2. LLM Integration:

a. Integrated chatbot capabilities using **LangChain**, **Hugging Face models**, and **Chainlit** for building intelligent, context-aware conversational systems.

3. Frontend Development:

a. Designed and developed a responsive and user-friendly frontend application using React.js, employing Context APIs for efficient state management.

4. Backend Development:

a. Built the backend with **Python and FastAPI**, ensuring scalable and efficient handling of chatbot interactions and data processing.

5. **Session Management:**

a. Utilized **Redis** for efficient **session management**, enabling fast and reliable real-time interactions.

6. Cloud Integration:

 Used AWS S3 for secure file storage, ensuring smooth data handling and retrieval for the chatbot.

7. WebSocket Implementation:

a. Implemented **WebSockets** to facilitate real-time, bidirectional communication between the frontend and backend for a seamless user experience.

8. Documentation:

a. Created detailed documentation for the chatbot's architecture, APIs, and integration processes to ensure maintainability and scalability.