GoTalk

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HACKTIVISTS

GO TALK

GoTalk is a real-time chat application designed to facilitate seamless communication among individuals or small groups.

Project Aim

- To develop a real-time chat web application with chat history retrieval using Go, WebSocket and Firebase majorly
Our main aim is to Learn the Go language and Firebase and learn how to establish a client-server connection using WebSocket.

Technologies and Tools Used

- **Frontend:**
  - HTML, CSS, JavaScript with Tailwind CSS for UI development.
- **Backend:**
  - Go (Golang) for server-side logic and WebSocket handling.
- **WebSocket Library:**
  - Gorilla WebSocket for WebSocket implementation in Go.
- **Authentication and Database:**
  - Firebase for real-time database and user authentication.

Features and Functionalities

- **Real-time Messaging:**
  - Utilizes WebSocket for instant message delivery.
- **User Authentication:**
  - Integrated Firebase for secure user login and authentication.

Features and Functionalities

- **Message History:**
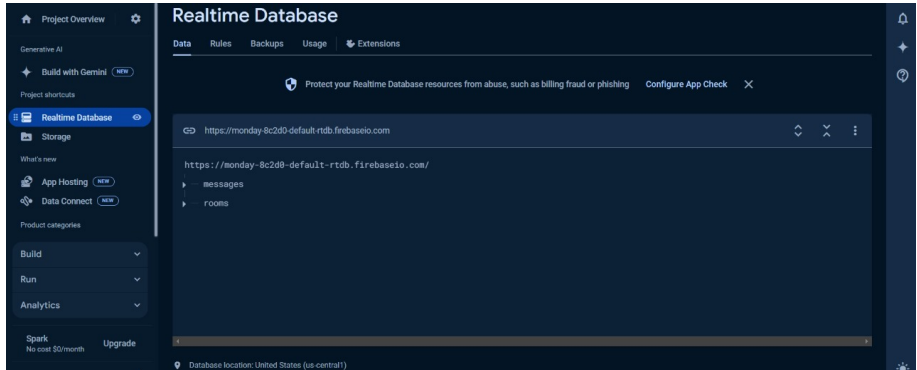 - Stores chat history in Firebase Realtime Database for seamless retrieval.
- **User Interface:**
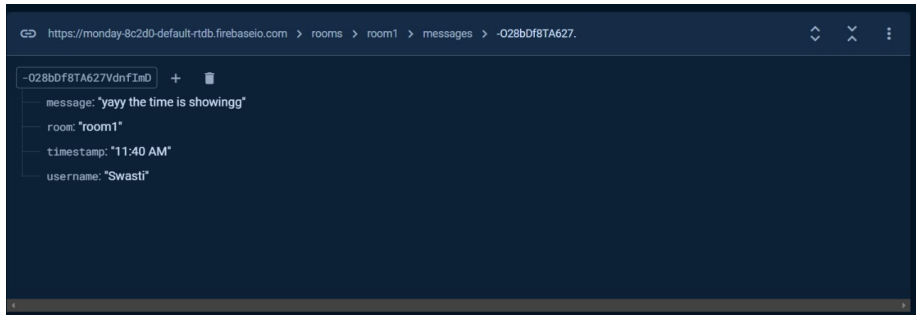 - Simple and intuitive design using HTML/CSS/JavaScript with Tailwind CSS for responsiveness.

Database

Database

Database

Database

Learnings

- We learnt working in teams.

- We learned how to use git properly

- Learned Go Language for backend development

- WebSocket for enabling real-time communication

- Firebase Realtime Database for storing chats and authentication

Challenges Faced

- Implementing WebSocket Integration
- Firebase Centralized Database
- Cookie Management
- Login Authentication

Conclusion

- Throughout this project, we faced and overcame several challenges, such as ensuring real-time synchronization, managing user sessions, and maintaining a responsive UI. Each challenge provided valuable learning experiences and contributed to the robustness of our final product.

Thank you for your attention!

Suggestions and Feedback welcomed.