GoTalk

Swasti   Shreya   Krishika   Samriddhi

July 10, 2024

HACKTIVISTS

PROJECT AIM

To develop a real-time chat web application with bidirectional communication and 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 .

Tech Stack

- **Frontend**
  - HTML/CSS
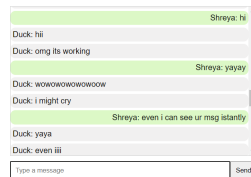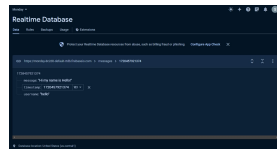 - JavaScript
  - Bootstrap/Tailwind CSS
- **Backend**
  - Go (Golang)
  - Gorilla WebSocket
  - Firebase Realtime Database

COMPLETED TASKS

- Established bidirectional communication using WebSocket.
- Implemented past chat retrieval feature.
- Integrated Firebase Console for real-time Database management.
- Successfully stored all messages in the firebase real-time database.
- Added basic styles to the user interface.

CURRENT STATUS

ISSUES WE ARE FACING

- On reloading the user is directed to re-enter the name in the pop-up shown.
  on re-entering the name the past messages stay the same but this gives user a chance to change their name frequently which might be annoying and this is not what we intended for.

- so we are working on changing this so that the program remembers that the user is the same who logged in previously.

CHALLENGES WE FACED

Problems Faced :

- Initial issues with WebSocket integration.
- UI/UX design not fully polished.

Mitigation Strategies:

- Collaborated to troubleshoot WebSocket issues.
- planning to refine UI/UX in the next phase.

WORK IN PROGRESS

- Improving UI/UX
- User authentication.
- Testing and debugging the application
  Main task : to make sure that the program remembers the user when
  run again.

Timeline

Week 1 - 1/08/2024 - 7/08/2024

- Installation
- Basic HTTP server
- WebSocket integration
- User Authentication using Firebase

Week 2 : 8/07/24 - 14/07/24

- Handling messages
- Chat history
- User interface
- Documentation

UPCOMING TASKS

- Refining and enhancing the user interface.
- Conducting extensive testing and fixing any bugs
- Gathering user feedback for further improvements.
- Ensure smooth and reliable chat experience.

CONCLUSION

- Successfully established bidirectional communication and chat history retrieval using WebSocket and Firebase
- Basic UI Implemented, with further improvements planned.
- Working on user interface.

Thank You

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