

ByteBuddy Requirements Document

Overview

ByteBuddy is a versatile programming assistance application designed to empower students in their coding endeavors. The application enables students to create chat rooms where they can seek assistance, collaborate, and receive guidance on their programming and coding projects. What sets ByteBuddy apart is its integrated code editing and execution capabilities, allowing students to write, edit, and run code seamlessly within the application.

Team Member:

- James Elliott
- Alekz Green
- Aakansha Arora
- Khoa Nguyen

Functional Requirements

1. A user shall be able to signup, login, and logout of the application.
2. A user shall be able to create and delete a chat room.
3. A user shall be able to send, edit, and delete messages within the chat room.
4. A user shall be able to get, copy, and share a link to the chat room.
5. A user shall be able to upload images to the chat room.
6. A user shall be able to use emojis in the chat room.
7. A user shall be able to create, edit, and run code through an embedded editor.
8. A user shall be able to collaborate in an embedded IDE inside the chat rooms.
9. A user shall get a notification when they have new messages in chat rooms.
10. A user shall be able to see all messages in a chat room in chronological order
11. A user shall be able to set a profile picture and their name.
12. The database should store users with data for name, email, password (hashed), and profile picture.
13. The database should store chat room messages with text, time, user and chat room.
14. The database should store data for name, creator, time created, current users, and allowed users.
15. The database should store IDE sessions with data for the chat room and text

Non-Functional Requirements

1. The system should have a load time < 3 seconds.
2. The system should use an authentication protocol for login
3. The system should use a data cache system for caching messages
4. The system should be able to support > 100 users.
5. The system should use Django and Django REST Framework for backend.
6. The system should use JavaScript and Svelte framework for frontend.