Training Day-7 report

30 June, 2025

Today, I continued work on the **messaging project**. Until now, the application supported a single public chat room where any user could join and participate. The primary focus for today was implementing **Direct Messaging (DM)** functionality.

Work-Undertaken:
- Introduced a system to support **Direct Messages** between users.
- Modified and extended the **existing messaging logic** to handle private message routing without disrupting the public chat.
- Ensured each DM is sent only to the intended recipient based on their username or session.
- **Refactored route definitions** to improve clarity and maintainability, as the earlier setup had become messy and hard to scale.

Challenges-Faced:
- Although the logic for DMs wasn't overly complex, integrating it smoothly into the existing codebase required thoughtful adjustments.
- Updating message handlers and ensuring correct separation between public and private messages involved reviewing and reworking large sections of existing logic.
- Redesigning the route structure consumed the majority of the development time, but was essential for long-term maintainability.

Key-Learnings:
- Gained practical experience in **refactoring backend architecture**, especially in managing growing codebases.
- Learned how to structure messaging logic to handle **multiple chat contexts (public and private)**.
- Understood the importance of maintaining clean and modular routing when working with expanding applications.

Conclusion:
Today's work centered on extending functionality and improving code quality. With the DM feature now integrated and routes restructured, the application is becoming more feature-complete and developer-friendly.

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