Executive Summary of changes

the team identified several critical issues in the system related to memory leaks, architectural inconsistencies, and resource management deficiencies. Key Problems included websocket connections left open indefinitely, audio resources not being relesed properly, coroutines without apropriate cancellation mechanisms, usecases not injected through dependecy injection, repository Methods with inconsistens signatures, and UI states that did not accurately reflect connections status.

to address these issues, Multiple solutions were implemented. the websocket Mananger was redesigned with cleanup mechanisms, coroutine cancellation, and more robust State and error handling. the audio Service was optimized to systematically release audio resources, implement State controls, and perform automatic cleanup when stoping recording or playback. Dependency Injection was completed by creating a dedicated usecase module, resolving missing dependencies, and consolidating modules for better maintainability. Finally repository methods were standarzized with consistent signatures and improved integration with the websocketmanger.

the outcome is a cleaner, more maintainable, and scalable system, better prepared for future needs and more resilient against errors

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