

Field	Description
Introduction	This sequence diagram details the technical implementation of the chat feature using WebSockets. It maps the event-driven interaction between the Client App, Backend Socket Server, and Database.
Objectives	<ul style="list-style-type: none"> 1. To define the WebSocket events (sendMessage, newMessage) used for communication. 2. To illustrate the persistence strategy (saving to DB) ensuring history is kept. 3. To confirm the sequence of validation checks before broadcasting.
Functional Requirements	<ul style="list-style-type: none"> 1. The Frontend must emit a socket event with the message payload. 2. The Backend must validate and insert the message into the Database. 3. The Backend must push the message to the recipient's active socket connection.
Non-Functional Requirements	<p>Scalability: The socket server must handle thousands of concurrent connections.</p> <p>Reliability: Messages sent while a user is offline must be stored and delivered upon reconnection.</p>