

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	<div>1. To define the WebSocket events (sendMessage, newMessage) used for communication.</div> <div>2. To illustrate the persistence strategy (saving to DB) ensuring history is kept.</div> <div>3. To confirm the sequence of validation checks before broadcasting.</div>
Functional Requirements	<div>1. The Frontend must emit a socket event with the message payload.</div> <div>2. The Backend must validate and insert the message into the Database.</div> <div>3. The Backend must push the message to the recipient's active socket connection.</div>
Non-Functional Requirements	<div>Scalability: The socket server must handle thousands of concurrent connections.</div> <div>Reliability: Messages sent while a user is offline must be stored and delivered upon reconnection.</div>