

Field	Description
Introduction	<p>This sequence diagram details the technical message flow for user registration, mapping the interaction between the User, Frontend, Backend API, and Database.</p> <ol style="list-style-type: none">1. To visualize the order of operations for creating a new account.
Objectives	<ol style="list-style-type: none">2. To define the specific API calls and database queries required.3. To illustrate how the system handles errors like duplicate emails.
Functional Requirements	<ol style="list-style-type: none">1. The Frontend must send a POST /api/register request with user details.2. The Backend must query the Database to ensure the email is unique.3. The Database must store the new user record upon successful validation.
Non-Functional Requirements	<p>Security: User passwords must be hashed before being sent to the database.</p> <p>Latency: The API response time for registration should not exceed 500ms.</p>