

Field	Description
Introduction	This sequence diagram details the backend operations for processing a withdrawal request. It focuses on the database locking mechanisms required to safely deduct funds.
Objectives	<ul style="list-style-type: none"> 1. To map the API call POST /api/withdraw to database operations. 2. To specify the atomic transaction: checking balance, deducting funds, and creating the request record. 3. To illustrate the error handling flow for insufficient funds.
Functional Requirements	<ul style="list-style-type: none"> 1. The Backend must query the User table to retrieve the current balance. 2. If valid, the system must update the user's balance ($\text{Balance} = \text{Balance} - \text{Amount}$) and insert a transaction record. 3. The system must return a success confirmation to the frontend.
Non-Functional Requirements	<p>Data Integrity: Financial transactions must adhere to ACID properties to prevent data corruption.</p> <p>Auditability: Every withdrawal request must have a timestamp and unique ID.</p>