

## Summary of Work: Currency Converter API Enhancements

In Sprint 2, we focused on enhancing the conversion application by adding a history page (history.html) to display recent conversions, improving error handling for the conversion process, and ensuring that the user interface communicates errors effectively. Below are the detailed implementation steps and usage instructions.

### 1. Addition of history.html

**Objective:** Create a new HTML page to display the history of conversions.

**Implementation Details:**

We created a new Thymeleaf template named history.html.

This page includes a table that displays recent conversion records fetched from the backend.

Each conversion record includes fields such as the original amount, converted amount, currency types, and the timestamp of the conversion.

The controller was updated to fetch conversion history from the service layer and pass the data to the history.html template.

**Usage:**

Users can navigate to the history page to view their recent conversions.

The page is designed to be user-friendly, allowing users to easily track their conversion activities.

### 2. Fixing the Recent Conversions Display

**Issue:** The recent conversions were not visible on the history.html page.

**Fix:**

We investigated the data flow from the backend to the frontend and found that the controller was not correctly populating the model with recent conversion data.

Adjustments were made in the controller to ensure that the conversion history is fetched from the database and passed to the history.html template.

We also ensured that the data is correctly rendered in the HTML table using Thymeleaf.

### 3. Exception Handling for Input Validation

Objective: Improve user experience by adding validation checks for the amount input in the conversion form.

Implementation Details:

We implemented input validation in the conversion form. The following checks were added:

**Empty Amount:** If the user submits the form without entering an amount, an error message is displayed prompting them to fill in the field.

**Minimum Amount:** If the entered amount is less than 0.01, an error message is displayed indicating that the minimum amount is 0.01.

**Non-Negative Values:** If the user enters a negative value, an error message is shown to inform them that only non-negative values are acceptable.