

### 1. Testing the functionality of the form using the database and GUI:

- Verify that the form displays a list of available base currencies and target currencies fetched from the database.
- Select different base and target currencies and verify that the conversion is accurate based on the exchange rates stored in the database.
- Verify with the inclusion and exclusion of commission, to make sure that the commission is correctly calculated and applied based on the specified rules from the database.
- Verify that the form handles error cases such as selecting invalid currencies, entering invalid amounts, database connection errors.
- Test concurrent access to the shared database by simulating multiple users performing currency conversions simultaneously to ensure data integrity.

### 2. What tests would you perform to test the operations supported by the “Maintain currencies” form?

- Test adding a new currency to ensure it is successfully added to the database and displayed in the main form.
- Test deleting a currency to ensure it is removed from the database and no longer available in the main form.
- Test editing a currency to verify that the changes are correctly updated in the database and reflected in the main form.
- Check for validation of input fields, such as ensuring that currency codes are unique and have the correct format.
- Test boundary cases, such as adding the maximum number of currencies supported or attempting to delete/edit non-existent currencies.

### 3. What tests would you perform to test the operations supported by the “Maintain commission rates” form?

- Test setting a minimum commission value and verify that it is saved correctly in the database.
- Test adding commission rates for different ranges of values and ensure they are stored accurately in the database.
- Verify that commission rates are applied correctly during currency conversion based on the defined ranges and rules.
- Test editing and deleting commission rates to ensure the changes are correctly reflected in the conversion process.

- Validate input fields for proper validation, such as checking for valid ranges, non-overlapping ranges, and correct commission rate formats.

4.What tests would you perform on the form above to test accessibility?

- Verify that the form can be navigated using keyboard-only inputs, such as Tab key, arrow keys, and Enter key.
- Test the form with screen readers to ensure that all relevant information is read aloud and accessible.
- Check that the form meets color contrast guidelines for users with visual impairments.
- Test the form with various screen resolutions and ensure that all UI elements are properly displayed and aligned.
- Verify that the form has appropriate labels and hints to assist users with disabilities.
- Test the form with different browser configurations to ensure compatibility and accessibility across different platforms.

5.If you were automating the testing of this form for regression test purposes, what would you hope the developer had done to make the automation easier?

- Ensure that each element in the form has appropriate and unique identifiers, such as IDs or class names, to easily locate and interact with them during automation.
- Include consistent naming conventions for UI elements to maintain stability in test scripts.
- Design the form with a clear and organized structure, allowing for easier identification and manipulation of elements during automation.
- Implement proper error handling and error messages so that automation scripts can handle and verify error scenarios.
- Provide API endpoints or methods to programmatically control the start and stop of the separate process responsible for updating the database, allowing automation scripts to manage the process as needed.

6.If this application were used internationally, what further tests would you perform?

- Test currency conversions involving various international currencies to ensure accurate conversion rates.
- Verify that currency symbols and formatting are correctly displayed according to the selected target currency.
- Test with different regional settings on the operating system to ensure proper localization and formatting of numbers and dates.
- Validate that the application handles currency symbols that are not typically used in English-speaking countries.

- Perform tests with non-Latin character sets to ensure proper handling and display of currencies from different languages.

7. The screenshot of the form above shows immediately apparent user interface issues (you may have mentioned some of these in previous answers)?

- The "N/A" value displayed after conversion indicates a lack of proper error handling or validation when conversion fails or no result is available. It should display a meaningful error message instead.
- It would be helpful to have labels for the input fields, such as "Base Currency," "Target Currency," and "Amount," to improve clarity and usability.
- Including a tooltip or help icon next to the "Include commission" option would provide additional information to the user about the functionality.
- Consider adding a "Reset" or "Clear" button to easily clear the form fields and start over.
- Ensuring proper alignment and spacing of UI elements would improve the overall visual appeal and user experience.