**Test Plan**

**Functional Testing**

• Verify that the calculator can convert between different currencies

• Verify that the calculator can handle different amounts of money, including decimals, large numbers, and zero

• Verify that the calculator can apply different fees depending on the user type (private or business) and the operation type (cash in or cash out)

• Verify that the calculator can display the exchange rate and the fee rate for each conversion

• Verify that the calculator can update the results dynamically as the user changes the input values

• Verify that the calculator can handle invalid or empty inputs and display appropriate error messages

• Verify that the calculator can handle network errors and display appropriate error messages

**Acceptance Testing**

• Verify that the calculator meets the user requirements and expectations

• Verify that the calculator is consistent with the brand and style guidelines

• Verify that the calculator is responsive and works well on different devices and screen sizes

• Verify that the calculator is accessible and follows the web accessibility standards

• Verify that the calculator is secure and does not expose sensitive data or allow unauthorized access

**Exploratory Testing**

• Explore the calculator with different scenarios and use cases, such as:

• Converting between popular or uncommon currencies

• Converting large or small amounts of money

• Converting with high or low fees

• Converting with different user types and operation types

• Converting with different browser settings and preferences

• Converting with different network conditions and interruptions

**Test Report**

The calculator has some minor bugs and usability issues that need to be fixed before releasing it to the public. Here are some recommendations:

• Fix the error message for zero amount input to be more clear and accurate

• Fix the input field validation for large amount input to match the maximum limit

• Improve the design and layout of the calculator to make it more user-friendly and intuitive

• Add some help text or tooltips to explain the meaning of the exchange rate and the fee rate

• Add some currency symbols or flags to make it easier to identify the currencies

• Add some animations or transitions to make the calculator more interactive and engaging

**Bug Report 1:** Issue: Unclear and inaccurate error message for zero amount input Description: When the user enters a zero amount in the calculator, the error message displayed is not clear and accurate, causing confusion. Steps to Reproduce:

* Open the calculator.
* Enter '0' as the amount.
* Observe the error message displayed.

**Expected Result:** The error message should clearly state that the amount cannot be zero, prompting the user to enter a valid non-zero amount.

**Actual Result:** The error message displayed is either missing or not adequately conveying the issue with zero amount input.

**Bug Report 2:** Issue: Input field validation for large amount input does not match the maximum limit Description: The calculator allows users to input large amounts that exceed the maximum limit, leading to incorrect calculations or unexpected behavior. Steps to Reproduce:

* Open the calculator.
* Enter an amount exceeding the maximum limit.
* Observe how the calculator handles the input.

**Expected Result:** The input field should enforce the maximum limit for the amount, preventing users from entering values higher than the specified limit. An appropriate error message should be displayed if the user attempts to exceed this limit.

**Actual Result:** The calculator accepts amounts higher than the maximum limit without proper **validation or displaying an error message.**

**Bug Report 3:** Issue: Design and layout of the calculator need improvement for better user experience Description: The current design and layout of the calculator are not user-friendly and intuitive, making it difficult for users to understand and use the interface efficiently. Steps to Reproduce:

* Open the calculator.
* Attempt to perform currency conversion and fee calculations.
* Observe the overall design and layout elements.

**Expected Result:** The design and layout should be revamped to enhance user experience and provide a clear, intuitive interface that guides users through the conversion and fee calculation process effortlessly.

**Actual Result:** The design and layout of the calculator are lacking in terms of user-friendliness and intuitive navigation.

**Bug Report 4:** Issue: Lack of explanatory text or tooltips for exchange rate and fee rate Description: Users may not understand the meaning or purpose of the exchange rate and fee rate without proper explanations, leading to confusion and potential misuse of the calculator. Steps to Reproduce:

* Open the calculator.
* Look for explanations or tooltips related to the exchange rate and fee rate fields.

**Expected Result:** The calculator should have helpful explanatory text or tooltips to clarify the purpose and usage of the exchange rate and fee rate fields.

**Actual Result:** There are no explanatory texts or tooltips to guide users about the exchange rate and fee rate fields.

**Bug Report 5:** Issue: Missing currency symbols or flags for easier identification of currencies Description: The absence of currency symbols or flags in the calculator makes it challenging for users to quickly identify the currencies they want to convert. Steps to Reproduce:

* Open the calculator.
* Observe the absence of currency symbols or flags next to the currency names.

**Expected Result:** Each currency should have an associated currency symbol or flag next to its name for easier recognition and selection by users.

**Actual Result:** The calculator lacks currency symbols or flags, making currency identification more difficult.

**Bug Report 6:** Issue: Lack of animations or transitions in the calculator Description: The calculator lacks interactive elements like animations or transitions, resulting in a static and less engaging user experience. Steps to Reproduce:

* Open the calculator.
* Interact with the user interface and observe its behavior.

**Expected Result:** The calculator should include appropriate animations or transitions to enhance interactivity and engagement, providing users with a more enjoyable experience.

**Actual Result:** The calculator does not incorporate any animations or transitions, resulting in a static user interface.

Note: It's important to ensure that the bug reports are clear, concise, and specific, with detailed steps to reproduce each issue. This will help developers identify and address the problems effectively.