Currency Converter App Test Plan & ICD

Revision 5

CMSC 495 6380

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Group 4

Roy Auh, Ronald DeSears, Stephen Snelling

## **Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision Number** | **Date** | **Description** | **Name** |
| 1 | 6/18 | Creation of Google Doc, outline | Roy |
| 2 | 6/20 | Added test plan items based on previously constructed event diagrams | Ron |
| 3 | 6/21 | Added ICD | Roy |
| 4 | 6/21 | Formatting, and added some Test Cases | Stephen |
| 5 | 6/22 | Proofread | Roy |

## **I. Test Plan**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case Number** | **Requirement Number(s)** | **Test Description** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| 1 | 2,3,7 | Startup of application | GUI in ready state with no unexpected hardware issues or system failure. |  |  |
|  |  |  |  |  |  |
| 2 | 2,3,7 | User initiated termination of application | Program terminated and all items are deconstructed. |  |  |
|  |  |  |  |  |  |
| 3 | 1,2,3,5,6,7 | Currency type selection and execution of conversion after clicking the “Convert” button.  Test input:  Currency 1: USD  Currency 2: Euro  Amount: 2 | Application successfully returns a converted currency amount with no error messages.  E.g.:  Result: ~1.69  (rates at the time of testing will be slightly different) |  |  |
|  |  |  |  |  |  |
| 4 | 1,2,3,5,6,7 | Multiple Conversions from different selected currencies, showing the app can handle more than one conversion before termination.  Currency 1: USD  Currency 2: CNY  Amount: 100  Currency 1: CNY  Currency 2: SGD  Amount: 647.34  Currency 1: SGD  Currency 2: INR  Amount: 134.69 | Application successfully returns all converted values with no error messages.  Result: ~647.34  Result: ~134.69  Result: ~7424.57  (rates at the time of testing will be slightly different) |  |  |
|  |  |  |  |  |  |
| 5 | 4 | User enters a negative currency value  Currency 1: USD  Currency 2: AUD  Conversion Amount: -150.5 | Error message is displayed telling the user only positive values are accepted.  Pop-up message displaying error message |  |  |
|  |  |  |  |  |  |
| 6 | 4 | User enters a non-number currency value  Currency 1: Euro  Currency 2: USD  Conversion Amount: 14a | Error message displayed prompting user to enter a properly formatted value  Pop up message displaying error message. |  |  |
|  |  |  |  |  |  |
| 7 | 7 | Source website for currency rates unavailable | Error message is displayed indicating the exchange rate source is temporarily unavailable and proceeds to use old or backup rates. |  |  |

## 

## **II. Interface Control Document (ICD)**

**Between User and CurrencyGUI**:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **From** | **To** | **Name** | **Type** | **Value Range** | **Default Value** |
| User | CurrencyGUI | from-currency | String | Size: 3 | USD |
| User | CurrencyGUI | to-currency | String | Size: 3 | USD |
| User | CurrencyGUI | amount | float | 0.00 to 3.4e38 | 0.00 |
| CurrencyGUI | User | result | float | 0.00 to 3.4e38 | 0.00 |

**Between CurrencyGUI and CurrencyManager:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **From** | **To** | **Name** | **Type** | **Value Range** | **Default Value** |
| CurrencyGUI | CurrencyManager | from-currency | String | Size: 3 | USD |
| CurrencyGUI | CurrencyManager | to-currency | String | Size: 3 | USD |
| CurrencyGUI | CurrencyManager | amount | float | 0.00 to 3.4e38 | 0.00 |
| CurrencyManager | CurrencyGUI | result | float | 0.00 to 3.4e38 | 0.00 |

**Between CurrencyManager and ExchangeRateWebService:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **From** | **To** | **Name** | **Type** | **Value Range** | **Default Value** |
| ExchangeRateWebService | CurrencyManager | fromDollarRate | float | 0.00 to 3.4e38 | 0.00 |
| ExchangeRateWebService | CurrencyManager | toDollarRate | float | 0.00 to 3.4e38 | 0.00 |
| ExchangeRateWebService | CurrencyManager | name | String | Size: 3 | null |

**Between CurrencyManager and Currency:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **From** | **To** | **Name** | **Type** | **Value Range** | **Default Value** |
| CurrencyManager | Currency | fromDollarRate | float | 0.00 to 3.4e38 | 0.00 |
| CurrencyManager | Currency | toDollarRate | float | 0.00 to 3.4e38 | 0.00 |
| CurrencyManager | Currency | name | String | Size: 3 | null |
| Currency | CurrencyManager | currency | Currency object |  | null |