**Group 2: Project Requirements**

**Current Document Revision: 3**

**Currency Exchange Program**

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**CMSC 495 (7980)**

**March 27, 2016**

**Revision History Table**

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| --- | --- | --- | --- |
| **Revision Number** | **Date** | **Description** | **Name** |
| **1** | **Mar 26, 2016** | **Initial Document** | **Reginald Carey** |
| **2** | **Mar 27,2016** | **Requirement Revision** | **Robert Kibler** |
| **3** | **Mar 27, 2016** | **Requirement Revision for requirement 1,**  **Title page revision** | **Reginald Carey** |
| **4** | **Apr 2, 2016** | **Update as per peer review: Clarified 6,8,12,13 added 14,15** | **Reginald Carey** |

# PROJECT REQUIREMENTS

## Topic

Group 2 is developing a Currency Converter Application that can convert currency amounts from any official currency to any other official currency.

## Requirement

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| **Requirement #** | **Description** |
| 1 | The system shall support a desktop based GUI interface |
| 2 | The system shall provide a converted currency output |
| 3 | The system shall provide a mechanism to allow a user to provide a currency value to be converted |
| 4 | The system shall provide a mechanism to allow a user to select a currency type from which to convert. |
| 5 | The system shall provide a mechanism to allow a user to select a currency type to which to convert. |
| 6 | The system shall utilize the most recent currency valuations available from a single internet based source. |
| 7 | The system shall allow currency inputs to be either in whole or partial denominations. |
| 8 | The system shall present converted currency outputs with an accuracy of two decimal points using normal rounding. Note: Normal rounding is rounding as provided by Java 7 Math API’s. |
| 9 | The system shall present as part of the currency conversion output, the source and age of the currency valuation data used in the computation. |
| 10 | The system shall present as part of the currency conversion output, the currency conversion rate used in the computation as well as the reverse conversion rate. |
| 11 | The system shall have a mechanism to retrieve a list of “from” and “to” currency codes as a step prior to presenting a user interface. |
| 12 | The system shall have a mechanism for ensuring that the list of valid currency rates is less than 24 hours old. |
| 13 | The system shall conduct a currency conversion as soon as a new currency type or currency value is input. There shall be no need for a submit or convert button. |
| 14 | The system shall use the United States Dollar as a pivot currency. |
| 15 | The system shall cache currency rates and use those cached rates if internet access is not available when a conversion request occurs. |

## Definitions

Currency Type and Currency Code are synonymous

Currency Type is a symbol, phrase or word commonly used to denote a type of currency exchanged on the international market.