Class Assignment

Requirements Sheet

Art Ammirati & Roderick Tatom

Marion Technical College

1. Purpose and Overview
   1. Roman numeral conversion application, allow users to input either a Roman Numerals or Arabic integer, the resulting output is a conversion to the opposite number system.
   2. Roman numeral converter is to be user friendly and intended to be used by all age groups.
   3. The application maybe used as a quick reference for learning the symbols of the Roman Numeral System and their corresponding value and/or making quick conversions between the two systems for professional work or personal use.
2. Program Scope
   1. The application should be useable on any windows based PC computer, laptop, tablet and windows phone consuming only a fragment of the recourses, including processing power and active memory, on the device or standalone computer.
   2. The application will have a simple interface and is designed to perform only one function and that function is the numeric conversations.
   3. There will be no cost for the use of the application and the development will be done by students for educational purposes only.
   4. Deadline for this will be determined by the college instructor
3. References
   1. Appendix A – Roman Numeral Chart
4. Reliability
   1. The application should not interfere with the OS in any way which may impact negatively the performance of the host computer, consuming only a fraction of the recourses on the host system, furthermore, the application should respond to user input errors in a meaningful manner, if invalid input is entered (i.e. decimals values).
   2. Important that the conversations are accurate and do not miscalculate when converting between the two number systems, from 1 to 4000.
   3. Displays the output instantaneously on screen after pressing the convert button.
5. Distribution and Availability
   1. This program will be available free to download on Github, the mobile device app on the windows app store.
   2. Source code will be available for reference and download.
6. User Profile
   1. The program in intended for anyone who interested in converting Arabic to Roman Numerals i.e. students, educators, and historians, etc.
   2. In addition, programmers may use the code as reference for creating their own conversion program in C#.
7. Operating Environment
   1. Hardware - The program must be able to operate on a PC meeting the requirements for the Windows 7 operating system, equipped with standard mouse and keyboard inputs and a 1024 x 768 color display.
   2. Software and Dependencies - The program should run under Windows 7 or later. It requires the installation of virtual studio.
   3. Network Connectivity - The program may not be capable of linking to or referencing Internet data
   4. Memory and Storage - The program must operate within 512 MB of memory and 260KB of free hard disk space.
8. Security Requirements
   1. The program is open source and will contain non-sensitive data and will not require any special security features.
9. General Definitions
   1. Roman Numeral - The numeric system represented by Roman numerals originated in ancient Rome and remained the usual way of writing numbers throughout Europe well into the Late Middle Ages.
   2. The Hindu–Arabic numeral system (also called the Arabic numeral system or Hindu numeral system)is a positional decimal numeral system that is the most common system for the symbolic representation of numbers in the world.
10. Data Requirements
    1. Program will not convert a number over 3999.
    2. Program will not accept decimal for conversions.
11. General Requirements
    1. This program must provide a user interface that will allow the user to convert either a numeric or Arabic number to the opposite format. This will be done with a text box in which the user will enter either the roman or Arabic number. There will be a button that the user can click in order to convert the number in the text box to the opposite format that will be displayed in a label.

Appendix A – Data Specification

