

	Department of Computer Engineering Faculty of Engineering University of Sri Jayewardenepura
Course	Programming Quest
Course Code	C02210
Deadline	On or before 23:55H on 14 th September 2021
Assignment Number	02
Total Marks	100
Objectives	<ul style="list-style-type: none"> ● Get familiar with the Programming Quest Continuous Assessment Process. ● Use the data structures and algorithms in solving the practical problem. ● Use good coding practices.

General Instructions

- This is an individual assignment.
- This assignment should be completed using C++ programming language.
- Use the standard header files in the assignment.
- Do not use external libraries in this assignment.
- Submit all source code files (*.cpp) in a zip file. The zip file should be named in the yy_ENG_abc.zip format. (for example, if the index number is 19/ENG/777, the zip file name should be 19_ENG_777.zip).
- Late submission are accepted upto 72 hours from the original deadline but marks will be deducted.
- Submit the zip file to C02210 Programming Quest LMS page on or before the deadline mentioned above. If the LMS course page is not working, then the zip file can be emailed to randima@sjp.ac.lk.

Quest 02 - Roman numbers

Roman numbers are used in many places though the repeating characters confuse the readers. This quest is on converting a Roman number to Hindu-Arabic number.

Consider couple of Roman numbers are stored in a text file (.txt). Each number is stored in single line. Some of the numbers have errors such as four repeating digits, three Vs, and etc. The number may be in upper or lower case format, or may be in mix cases. It is assumed that only numbers between 1 and 100 are stored in the file.

Develop a programme to read the Roman numbers in the file and present the value of the number in Hindu-Arabic format in console mode. Other than the format errors, Roman number in the file may contain characters which are not in Roman number digit system. If there is/are any error in the Roman number, indicate 'error' in the output. It is not needed to show the type of error.

Example

ii = 2

iiv = error

IiI = 3

VVV = error

An online Roman Number converter is available in the following website:

<https://www.romannumerals.org/converter>

Create a text file (numbers.txt) for the testing purposes and DO NOT upload it to the LMS. Only the source code files are needed in the zip file.