



## **Roman Numeral Calculator**

For this Kata, you will be creating a library which will allow the addition and subtraction of Roman numerals. Once your solution is complete, please provide your solution as a Git repository (publicly available via Github or Bitbucket). Please include within your repository, all source and test code.

### **The solution will be reviewed for:**

- Test coverage
- Algorithms
- Code structure
- Use of source control - Overall solution

### **The environment for this kata is the following:**

- Ubuntu Linux 14.04
- The C programming language
- GNU GCC compiler tool chain
- GNU Make
- Check unit testing framework ( <https://libcheck.github.io/check/> )
- git

### **Roman Numeral rules:**

- Roman numerals consist of the following letters: I, V, X, L, C, D, and M which mean one, five, ten, fifty, hundred, five hundred and one thousand respectively.
- As we are in Rome there are no such things as decimals or integers, we need to do this with the strings. An example would be "XIV" + "LX" = "LXXIV."
- Numerals can be concatenated to form a larger numeral ("XX" + "II" = "XXII").
- If a lesser numeral is put before a bigger it means subtraction of the lesser from the bigger ("IV" means four, "CM" means ninehundred).
- If the numeral is I, X or C you can't have more than three ("III" + "II" = "IV" not "IIII").
- If the numeral is V, L or D you can't have more than one ("D" + "D" = "M" not "DD").



## **Stories**

### **User Story: Addition**

As a Roman bookkeeper

I want to be able to add two numbers together

So that I can do my work faster with fewer mathematical errors.

### **User Story: Subtraction**

As a Roman bookkeeper

I want to be able to subtract a number from another

So that I can do my work faster and with fewer mathematical errors.

**This Kata is based on the Roman Numeral Calculator Kata at <http://bit.ly/1VfHqlj>**

**Please submit your test-driven solution via a public Git repository (github/bitbucket).**