LAB [3], [1/24/2019] MCS 253P

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## **General Problem Description**

convert Roman Numerals into equivalent Decimal Numerals

Symbol	Meaning
I	1
V	5
X	10
L	50
С	100
D	500
М	1,000

## **Additional Problem Specifics**

Input valid:

Else:

- 1. Not in roman is invalid
- 2. More than 3 roman is invalid
- 3. Invalid subtraction except:
  - I can be placed before v (5) and x (10) to make 4 and 9.
  - x can be placed before L (50) and C (100) to make 40 and 90.
  - C can be placed before D (500) and M (1000) to make 400 and 900.

## **Proposed Algorithm**

```
#include <iostream>
#include <string.h>

int romanToInt(){
    char roman_dict[] = "IVXLCDM";
    int int_dict[] = {1,5,10,50,100,500,1000};

}

int main(){
    char input_string[50];
    int len = strlen(input_string);
    int sum = input_string(len);
    for (int i = len - 2; i >= 0; --i)
    {
        if (romanToInt(input_string[i]) < romanToInt(input_string[i+1]))</pre>
```

```
{
    sum -= romanToInt(input_string[i]);
}
else
{
    sum += romanToInt(input_string[i]);
}

return sum;
}
```