

Savitch 9thEd Chap 3, Prob 3: Roman Numerals

D

Input a number between 1000 - 3000, to indicate a year in four digits, but output in roman numerals

so example 1956 = MCMLVI, and 2447 = MMCDXLVII, and 2999 = MMCMXCIX

So how would we proceed to program this. We would need to break things up into thousand, hundreds, tens, and ones.

so what is $x \% 1000$? , for example $2999 \% 1000 = 999$. Wouldn't $(2999 - 2999 \% 1000) / 1000 = 2$? That's how many thousands there are. We'd call this variable nThous

How do we get hundreds? Same deal. $(999 - 999 \% 100) / 100 = 9$. That's how many hundreds there are.

And tens: $(99 - 99 \% 10) / 10 = 9$. That's how many tens there are.

And ones: $(9 - 9 \% 1) / 1 = 9$. That's how many ones there are. There!

So first we're going to have a program that'll strip off the digits. Then we'll have a program that counts the thousands, the hundreds, the tens, and the ones... so four switch statements.



