```c
/* EE231002 Lab02. Roman Numerials
                        Numerials // spelling
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   Date:2018/10/1 */
   Date: 2018/10/1 */ // space
#include <stdio.h>      // to call out standard I/O library

int main(void){         // function begin
int main(void) // function header
{
    int num;            // set num=what decimal number user type in
    int th, hund, ten;  // set 3 variables which represent digits
    // can have a blank line here
    printf("Input an integer number between 1 and 3000: ");
                        // print Input an integer number between 1 and 3000:
    scanf("%d", &num);  // scan decimal number which user types in
    th=num/1000;        /* make system identify digit in thousands by
    th = num / 1000; // space
                        divide 1000 into number */
    switch(th){         /* command what roman numerals should system print
    switch (th) { // space
                        and minus what number with each digit in thousands */
        case 3: printf("MMM");       // print MMM on the screen
                num = num - 3000; break; // to make digit in thousands becomes 0
        case 2: printf("MM");        // print MM on the screen
                num = num - 2000; break; // to make digit in thousands becomes 0
        case 1: printf("M");         // print M on the screen
                num = num - 1000; break; // to make digit in thousands becomes 0
                                  break; // this break is not needed
        }
    } // lined up with switch
    hund = num / 100;   /* make system identify digit in hundreds by
                        divide 100 into new number */
    switch(hund){       /* command what roman numerals should system print
    switch (hund) {
                        and minus what number with each digit in hundreds */
        case 9: printf("CM");        // print CM on the screen
                num = num - 900; break;  // to make digit in hundards becomes 0
        case 8: printf("DCCC");      // print DCCC on the screen
                num = num - 800; break;  // to make digit in hundards becomes 0
        case 7: printf("DCC");       // print DCC on the screen
                num = num - 700; break;  // to make digit in hundards becomes 0
        case 6: printf("DC");        // print DC on the screen
                num = num - 600; break;  // to make digit in hundards becomes 0
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35          case 5: printf("D");          // print D on the screen
36                  num = num - 500; break;  // to make digit in hundards becomes 0
37          case 4: printf("CD");         // print CD on the screen
38                  num = num - 400; break;  // to make digit in hundards becomes 0
39          case 3: printf("CCC");        // print CCC on the screen
40                  num = num - 300; break;  // to make digit in hundards becomes 0
41          case 2: printf("CC");         // print CC on the screen
42                  num = num - 200; break;  // to make digit in hundards becomes 0
43          case 1: printf("C");          // print C on the screen
44                  num = num - 100; break;  // to make digit in hundards becomes 0
45           }
      }
46    ten = num / 10;          /* make system identify digit in tens by
47                           divide 10 into new number */
48    switch(ten){             /* command what roman numerals should system print
49                           and minus what number with each digit in tens */
50          case 9: printf("XC");         // print XC on the screen
51                  num = num - 90; break;   // to make digit in tens becomes zero
52          case 8: printf("LXXX");       // print LXXX on the screen
53                  num = num - 80; break;   // to make digit in tens becomes zero
54          case 7: printf("LXX");        // print LXX on the screen
55                  num = num - 70; break;   // to make digit in tens becomes zero
56          case 6: printf("LX");         // print LX on the screen
57                  num = num - 60; break;   // to make digit in tens becomes zero
58          case 5: printf("L");          // print L on the screen
59                  num = num - 50; break;   // to make digit in tens becomes zero
60          case 4: printf("XL");         // print XL on the screen
61                  num = num - 40; break;   // to make digit in tens becomes zero
62          case 3: printf("XXX");        // print XXX on the screen
63                  num = num - 30; break;   // to make digit in tens becomes zero
64          case 2: printf("XX");         // print XX on the screen
65                  num = num - 20; break;   // to make digit in tens becomes zero
66          case 1: printf("X");          // print X on the screen
67                  num = num - 10; break;   // to make digit in tens becomes zero
68             }
69    switch(num){             /* command what roman numerals should system print
70                           with each digit in ones */
71          case 9: printf("IX");         // print IX on the screen
72                  break;
73          case 8: printf("VIII");       // print VIII on the screen
74                  break;
75          case 7: printf("VII");        // print VII on the screen
76                  break;
77          case 6: printf("VI");         // print VI on the screen
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78                  break;
79          case 5: printf("V");          // print V on the screen
80                  break;
81          case 4: printf("IV");         // print IV on the screen
82                  break;
83          case 3: printf("III");        // print III on the screen
84                  break;
85          case 2: printf("II");         // print II on the screen
86                  break;
87          case 1: printf("I");          // print I on the screen
88                  break;
89          }
90      printf("\n");                     // To go to next line
91      return 0;
92  }
```

// Good! Program output is correct.
Score: 87