

- 4.2 Try to walkthrough the following program and write down the expected results. Key-in the program and compare the results after execution. This program helps you to understand the use of *switch* statement.

```
/* This program determines the number of days in a given month
   Month must be in the range 1 to 12, inclusive */

#include <stdio.h>

int main (void)
{
    int Month;
    char Leap;

    printf("\nWelcome. This program gives you the number");
    printf(" of days in a month you enter.\n\n");

    printf("Please input month number (1 - 12) : ");
    scanf("%d", &Month);
    printf("\n");
    switch (Month)
    {
        case 1 :
        case 3 :
        case 5 :
        case 7 :
        case 8 :
        case 10 :
        case 12 : printf("31 days");
                  break;

        case 4 :
        case 6 :
        case 9 :
        case 11 : printf("30 days");
                  break;

        case 2 : printf("Is this a leap year (Y or N)?");
                  scanf(" %c", &Leap);
                  if ((Leap == 'Y') || (Leap == 'y'))
                      printf("\n29 days");
                  else printf("\n28 days");
                  break;

        default : printf("This is not a valid month number");
                  break;
    }

    printf("\n");

    return 0;
}
```

Try to use the following input data to find the output result.

Month	Leap
1	
2	Y
2	N
4	
7	
13	

Sample running:

Welcome. This program finds his program gives you the number of days in a month you enter.