Procedural Programming Laboratory
Lab 3

Part 1

Write a program that determines the day number (1 to 366) in a year for a date that is provided as input data. As an example:

- January 1 1994 is day 1,
- Dec 31 1993 is day 365 and
- Dec 31 1996 is day 366 since 1996 is a leap year.

A year is a leap if it is divisible by four except that any year divisible by 100 is a leap year only if it is divisible by 400.

Your program should accept the month, day and year as integers and display the day number.

Part 2

Write a program (using the switch statement) that determines which arithmetic calculation to apply to two floating point number inputs (value1 and value2) depending on the value of the third character input. The following values of the character represent different operations.

- 'A' – additions –> (value1 + value 2)
- 'S' – subtraction –> (value1 – value 2)
- 'M' – multiplication –> (value1 * value 2)
- 'D' - division –> (value1 / value 2)

If the value of the character is none of the above set the result to be -9999.

Your program should accept the value 1 and value2 as floats and a character to determine the arithmetic calculation. The program should output the resultant calculation.

You should submit your design, your code and a sample of the input and output in a single zip file to moddle.

Deadline: 12^h October 2016 at 12noon