

CSCI 1990 ASSIGNMENT 2 FALL 2009

DUE SEPTEMBER 22 AT 5 PM

Write a Java program that asks the user to input the month, day, and year, and determines the day of the week on which that occurred.

First the user is asked to enter 3 integers:

month month, entered as an integer in the range 1 to 12

day day, entered as an integer in the range 1 to 31

year year, entered as the appropriate integer

The program determines the day of the week using Zeller's congruence as follows:

Compute M using the formula

$$1 + (\text{month} + 9) \% 12$$

Compute Y as follows:

Assign the value of year to Y.

If M is greater than 10, subtract 1 from Y.

Compute C using

$$Y / 100 \quad (\text{integer division})$$

Compute D using follows:

$$Y \% 100$$

Then compute N using

$$((13 * M - 1) / 5 + \text{day} + D + D/4 + C/4 + 5 * C) \% 7$$

Then, if N is 0, output "Sunday"; if N is 1, output "Monday", etc.