Fall 2020

Computer Science 1001
Lab Problem #2
Due Sept 30th (4:59pm NL time)

- Your solution to this lab problem should be uploaded to the **Lab Problem 2** dropbox on the course Brightspace shell.
- Name your file `day_of_week.py`.
- The dropbox for this lab problem will close at 4:59pm NL time on September 30th. Late submissions will not be accepted.

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1. Given a date, it is possible to determine the day of the week for that date using the following algorithm (use integer division throughout):

   - Let y be the 4-digit year, m be a 2-digit value corresponding to the month (for example, for March $m = 3$, and for November $m = 11$), and d be the 2-digit day.
   - If m is equal to 1 or 2 then reduce y by 1.
   - Set $p =$ last two digits of y.
   - Set $q =$ first two digits of y.
   - Set $r = ((m + 9) \mod 12) + 1$.
   - Set $s = \frac{13r-1}{5}$.
   - Set $t = \frac{p}{4}$.
   - Set $u = \frac{q}{4}$.
   - Set $v = d + p + s + t + u + 5q$.
   - Set $w = v \mod 7$.
   - The day of the week is given by the value of w, where $w = 0$ would be Sunday.

   Write a Python program to accept a year, month, and day from the user, and implement the algorithm above to determine the day of the week for the input date.

   Sample input/output:

```
Enter the 4-digit year: 1992
Enter the month as an integer: 1
Enter the day as an integer: 3
January 3 , 1992 is a Friday
```