

## Problem Set 1 Exercise #17: Leap Year

**Reference:** Lecture 3 notes

**Learning objectives:** Selection statements; Writing Boolean functions

**Estimated completion time:** 20 minutes

### Problem statement:

Write a program **leap\_year.c** to determine whether an input year is a leap year.

A year is a leap year if

- it is divisible by 4 but not by 100; or
- It is divisible by 400

Examples of leap year include 2004, 1980, 2000 and 2400.

Examples of non-leap year include 1997, 2006 and 2200.

Your program should contain a function

```
int is_leap_year(int year)
```

that returns 1 if the given year is leap year, returns 0 otherwise.

### Sample run #1:

```
Enter year: 2000  
2000 is a leap year
```

### Sample run #2:

```
Enter year: 2100  
2100 is not a leap year
```