

# Passport exercise

## 1: Date class

### Private fields

- int **year**
- int **month**
- int **day**

### Public methods

- Constructors
  - **Date()** : Call second constructor, passing default value of January 1, 2000
  - **Date(int, int, int)**
    - Check that month and day arguments are valid
    - If not, change them to the closest valid value
    - For each one of the 3 validated arguments, store it in the correct field
- Field getter methods
  - int **getYear()**
  - int **getMonth()**
  - int **getDay()**
- Calculated getter methods
  - string **getMonthString()**
    - Return "January", "February", etc.
  - int **getYearsBetween(Date otherDate)**
    - Return number of years between this date and the other date
  - int **getMonthsBetween(Date otherDate)**
    - Return number of months between this date and the other date
  - int **getDaysBetween(Date otherDate)**
    - Return number of days between this date and the other date
  - bool **isLeapYear()**
  - int **getDaysInMonth()**
    - Return 28 or 29 or 30 or 31
- Other methods
  - string **toString()**
    - Return string description of object's fields
    - Example: "January 1, 2000"
  - void **display()**
    - Display the result of toString() in the console