

<b>CS 212 – Fall 2021 – Project 1</b>
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Assigned: 6 October 2021  
Due: 20 October 2021  
Cutoff: 24 October 2021

### Creating a Class for Dates

Create a class called *Date212* to represent a date. It will store the year, month and day as integers so you will need three private instance variables. One constructor should be provided that takes a String representing the date in *yyyymmdd* format. The constructor should use the *substring* method of class *String* to pull out the month, day and year, parse them as integers put them in the instance variables.

The *Date212* class should have the usual set and get methods, and *equals*, *compareTo* and *toString* methods. The *toString* method should print the date in “mm dd, yyyy” format (for example, 20211002 would be returned as “October 2, 2021”).

### Sorting an Array of Dates/ Displaying in a GUI

Given an input file of dates represented as Strings, read the dates from the file and display them in a GUI. The dates will be in the form *yyyymmdd* (such as 20211001 for October 1, 2021). The GUI should have a GridLayout with one row and two columns. The left column should display the dates in the format read from the file, and the right column should display the dates as *Date212* object in sorted order (using Selection Sort).

#### The input file

Each line of the input file may contain several dates separated by commas. You will need to use a StringTokenizer to separate out the individual dates. So, an example of the input file would be:

```
20141001
20080912, 20131120, 19980927
20210202
20200104
```

#### Submitting the Project.

You should now have the following files to submit for this project:

```
Project1.java
Date212.java
DateGUI.java
```

#### Submit a jar file.

Rather than upload all the files above separately, we will use Java’s facility to create the equivalent of a zip file that is known as a **Java AR**chive file, or “jar” file.

Instructions on how to create a jar file using Eclipse are on Blackboard. Create a jar file called **Project1.jar** and submit that.

Upload your project to Blackboard by the due date for full credit.