

Instructions:

- Create a separate java class file for each class.
- Zip the complete project and submit the .zip file.
- The general rubrics are given below:

Description	Max. Marks
Coding style Use the best practices for writing the code. The code is well-organized and very easy to follow.	20%
Logic The student has used effective programming logic for solutions and demonstrates the appropriate concept in the respective task.	60%
Results The program is error-free and generates the expected results as per the specifications.	20%

Task:

Write a program that converts dates from numerical month/day/year format to normal “month day, year” format (for example, 12/25/2021 corresponds to December 25, 2021). You will define three exception classes, one called `MonthException`, another called `DayException`, and a third called `YearException`. If the user enters anything other than a legal month number (integers from 1 to 12), your program will throw and catch a `MonthException` and ask the user to reenter the month. Similarly, if the user enters anything other than a valid day number (integers from 1 to either 28, 29, 30, or 31, depending on the month and year), then your program will throw and catch a `DayException` and ask the user to reenter the day. If the user enters a year that is not in the range 1000 to 3000 (inclusive), then your program will throw and catch a `YearException` and ask the user to reenter the year. (There is nothing very special about the numbers 1000 and 3000 other than giving a good range of likely dates.)

In the main program, you will ask the user to enter the date in MM/DD/YYYY format and then print the formatted date if the user enters the valid date.

[Hint: Use `StringTokenizer` class to parse the date input by user. Read some stuff about `StringTokenizer` here <https://docs.oracle.com/javase/7/docs/api/java/util/StringTokenizer.html>]

The picture below represents the sample console output.

Enter date to parse (MM/DD/YYYY format):

11/31/2020

Invalid day. Reenter a valid day:

13

Parsed date: November 13, 2020

Enter date to parse (MM/DD/YYYY format):

02/29/2021

Invalid day. Reenter a valid day:

27

Parsed date: February 27, 2021

Enter date to parse (MM/DD/YYYY format):

14/12/2021

Invalid month. Reenter a valid month:

12

Parsed date: December 12, 2021

Enter date to parse (MM/DD/YYYY format):

04/18/3022

Invalid year. Reenter a valid year:

2022

Parsed date: April 18, 2022