CST8130: Data Structures
Lab 1- Reading from Files

Problem Description:

In this lab, you will write a little program to read from a file named Events.txt (see attachment) and displays the individual field info onto your screen in a specific format (as shown below).

Events.txt has information like type of the event, Date of the event (Month, day, year), time of the event (hour, minute), and description of the event. This information is available for all types of events.

If the event type is 1 or 3, location of the event is also provided.

For events of type 3, in addition to the location, number of hours worked also is given.

Classes
1. Event
    a. Private members for each information and a Scanner object
    b. Method readFromFile() that opens a file, reads from it till the file has information in it, and closes the file
    c. Method printEvents() that prints events. This method needs to be called from readFromFile().
    d. Static method printTitle() that prints a title for the output
2. Lab1Test
    a. Main method that creates an object of event class, call the static printTitle() (this is a static method, so you should not call it using an object. How will you call it then?) and then call readFromFile() method.

Reading from files will be there in our assignments. Once this lab is done, you are done with one part of the assignment!

Make sure that your output is formatted as below. You need to use System.out.printf() with format specifiers for each output.

Example Output:

Type	Month	Day	Year	Hour	Minute	Description	Location	Hours
1	2	1	2020	10	0	StaffMeeting	T307	
1	2	4	2020	11	30	StaffMeeting	T307	
1	3	1	2020	9	0	CommitteeMeeting	T317	
2	2	1	2020	11	0	CST8130Class		
2	2	2	2020	18	0	CST8130Test		
2	2	3	2020	16	0	CST8130LabDue		
2	2	7	2020	15	30	CST8130Class		
3	2	1	2020	14	0	Work	BestBuy	8
3	2	5	2020	17	0	Work	Library	4
3	2	2	2020	18	0	Work	BestBuy	8
3	4	2	2020	7	0	Work	Library	7
4	2	3	2020	17	30	Gym		
4	3	3	2020	7	0	Gym		
4	3	3	2020	17	30	Gym		
4	4	3	2020	7	0	Gym		
4	4	3	2020	17	30	Gym		
5	2	1	2020	9	0	Breakfast		
5	2	2	2020	22	0	Party		

Grading (total: 10 marks)

Item	Marks
Event class (correct access specifiers and methods)	4
Lab1Test class	1
Formatted output	3
Javadoc comments	2

Submission

Demonstrate your work to your lab professor by end of week 2 in your own lab hours. No submission required for labs.