

Introduction

Data Structures



Contents

1. Administration
2. Team Project

3. Review

Administration

Lecturer



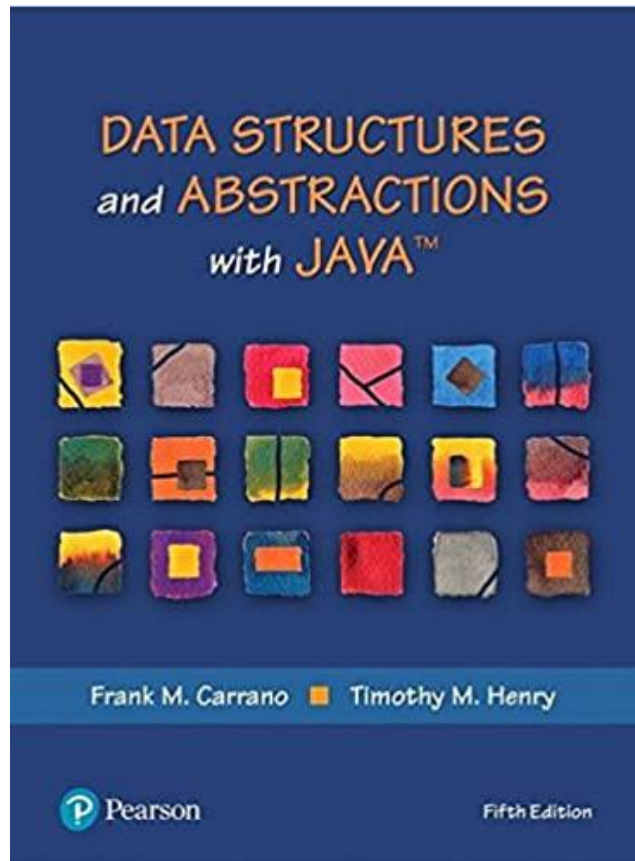
Ja-Hee Kim

Contact Info.

- E-mail: jahee@seoultech.ach.kr
- If you have any question,
 - Office Hour: Wednesday 14:00-15:00
 - Office: Frontier Building #609
 - Hour: Wednesday 14:00-15:00
 - Register via message in e-class

Textbook

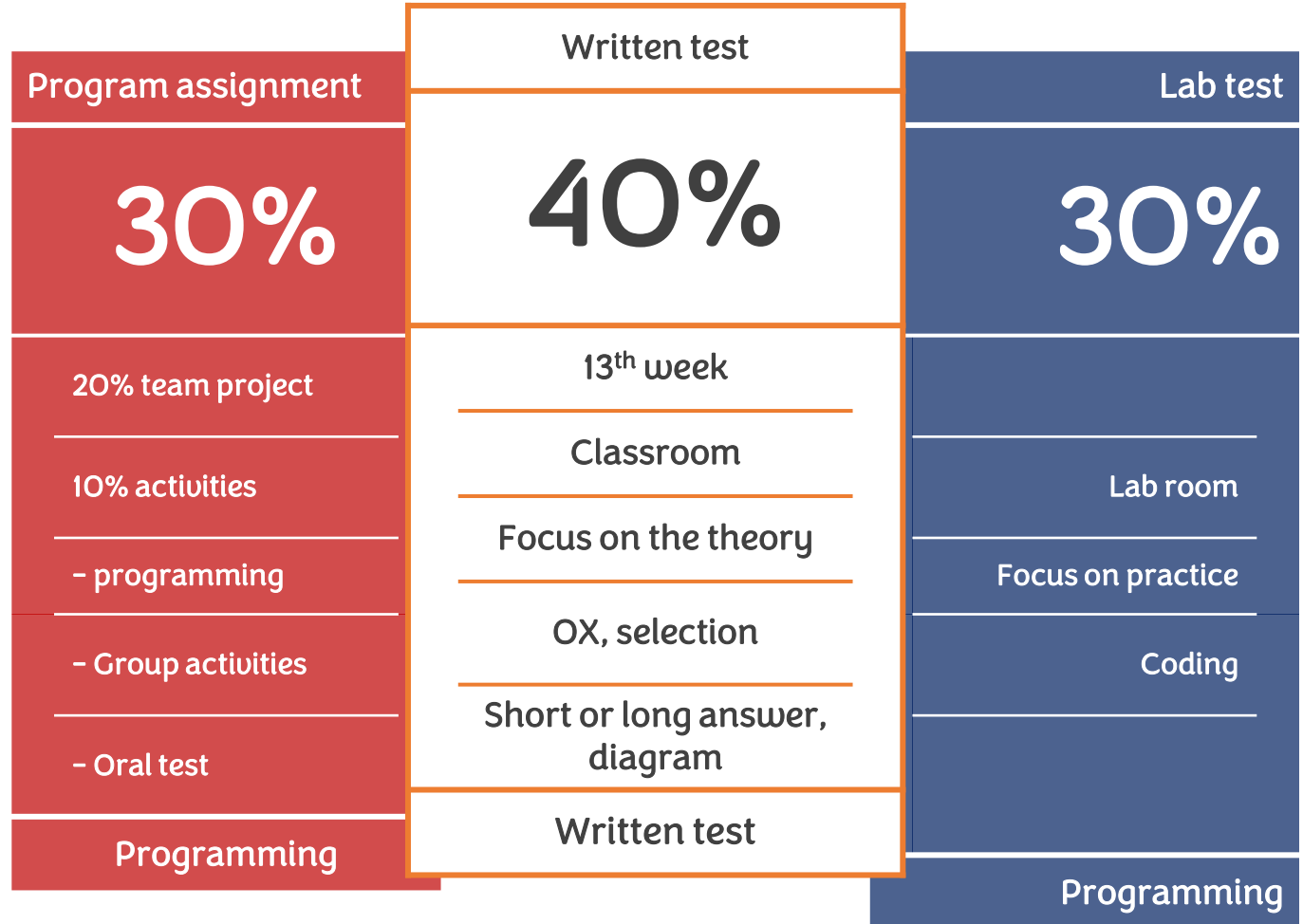
<https://www.amazon.com/Structures-Abstractions-Whats-Computer-Science/dp/O134831691>



Schedule

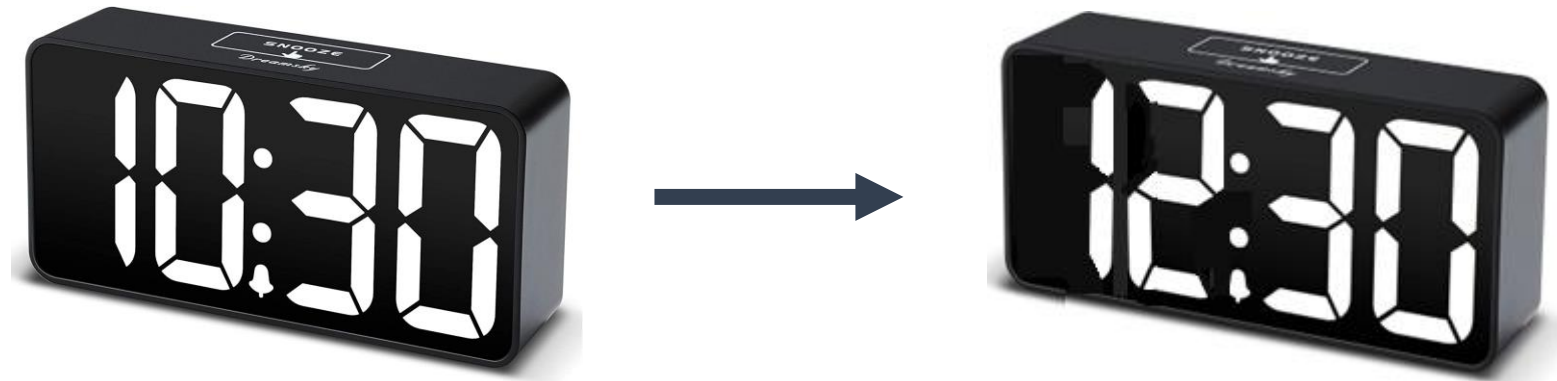
Week	Subject	Note
1	Introduction	On/Off
2	Advanced Java	Programming quiz
3	Time complexity	Group activity
4	List	Group activity
5	Stack	Programming quiz
6	Queue	Programming quiz
7	Recursion	Programming quiz
8	Presentation on GUI	Offline only
9	Tree	Programming quiz
10	Binary Search Tree	Programming quiz
11	Sorting	Oral quiz
12	Hash Table	Online only
13	Written Test	Offline only
14	Lab Test	Offline only
15	Final Project Presentation	Offline only

Grading

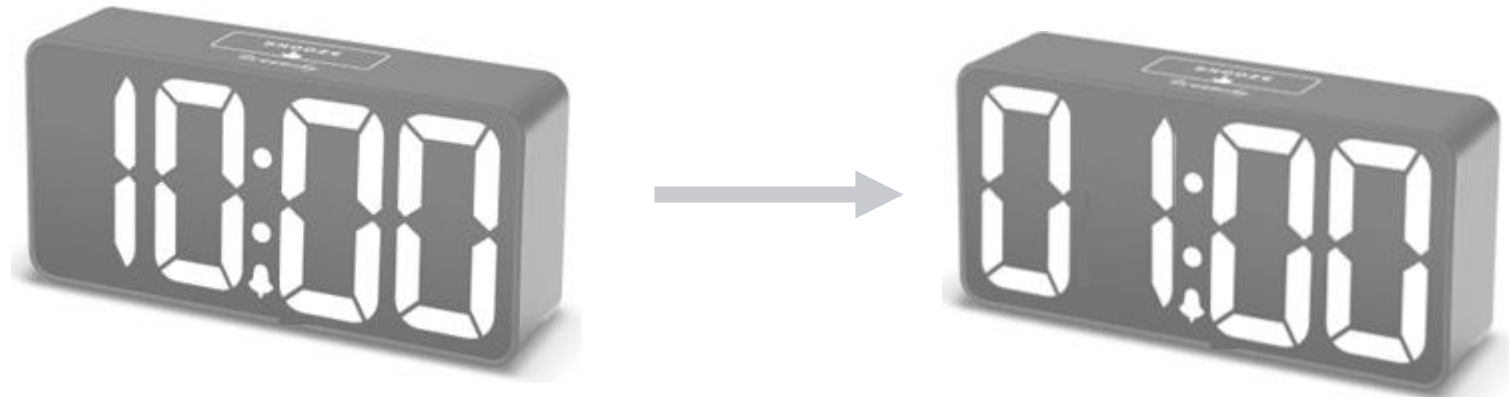


Time

- If you have online lecture



- If you do not have online lecture



Team Project

Drawing Editor

Outline

- Implement a drawing editor for shapes with a convenient graphic user interface
- Each team's program provides two mandatory shapes and two mandatory functions
- Do not implement other teams' mandates
- Fixed GUI: 8th week
 - If you change the user interface, you will get the penalty.
- Due: Final Week

Assessment

- Convenient interface: 5pts
 - Drawing a line: 2pts
 - Drawing a circle or a rectangle: 3pts
 - Selecting a line: 2pts
 - Selecting a circle or a rectangle: 3pts
 - two required functions: 10pts(5+5)
 - Cut & paste
 - Copy & paste
 - Line & area coloring
 - each extra function : +1pt
-
- Abnormal behavior and implementing other teams' mandates cause some penalties.
 - The total score will be recalculated into 20% based on the top score of the teams.

Review

Summary

- Data Structures: components of algorithms for solving problems
- Algorithm: a **procedure** for solving a mathematical problem in **a finite number of steps** that frequently involves repetition of an operation
- Flowchart
 - Sequence
 - Branching
 - Loop

Next week

- Review of an Object-oriented concept
 - ADT
 - Class
 - Abstract class
 - Interface
- Generics
 - Parameter class having some undecided types

Thank you

