Java By Abstraction - Companion Notes
Topic 8 – Aggregation

CSE 1720, Winter 2010, Version 1.0, Prepared by: M. Baljko

corresponding to Chapter 8 of JBA
- **although all 6 of the Learning Objectives on p. 290 are important, you may concentrate on #1-2,4-5**

Section 8.1.1-8.1.4; PT 8.1; IMD 8.1; Ex 8.1-8.4
- a key statement can be found on p. 292, near the bottom "...if creating an instance of the aggregate automatically leads to creating an instance of the aggregated part, then the aggregation becomes known as a **composition**"
- In the UML diagrams, the compositions are distinguished from aggregations by the solid-coloured diamond (as opposed to an empty diamond)
- The examples using CreditCard and Investment make much more sense if you look at the API and play around with some code.
- PT 8.1 was reinforced by Lecture 14!!
- the difference between aliasing and shallow copying is key – there are memory diagram illustrations on pp.297-298

Case Study 8.1.5 & 8.1.6; JD 8.1-8.2; IMD 8.2-8.3; Section 8.2.6
- these sections are very interesting; however, a higher priority is to master the materials in the other sections of this chapter. Come back to this material only once you're comfortable with the other material.

Section 8.2; Ex 8.5-8.6
- sec 8.2.2 identifies key issues with adding/removing elements.
- sec 8.2.3 & 8.2.4 should be old hat! you've done both types of traversals in 1710 many times. now it's just a matter of learning the Java syntax for the equivalent ideas.
- sec 8.2.5 – key ideas re: searching through a collection

How do I know whether I understand this material?
At a minimum, you are able to:
- complete L8.1 and understand it
- complete exercises 8.11 and 8.13