

Assignment 3

Reading –Read Sections 6.1 and 6.2 of the revised Chapter 6 of the textbook that was handed out in class.

Problem 1

Consider a transaction processing system that supports a bank. For each of the transaction properties in COM+ and Enterprise Java Beans, give an example of a type of transaction that might use it (i.e., requires new, required, supported, not supported, mandatory, never). To get you started, some example transaction types to consider are deposit, withdraw, pay credit card, charge to credit card, and pay monthly mortgage.

Problem 2

For each of the following histories, list all serial histories that are equivalent to it:

- a. $H = w_0[x] w_0[y] w_0[z] c_0 r_1[y] r_2[x] r_3[y] w_1[y] w_3[z] r_2[z] w_2[y] c_2 c_1 c_3$
- b. $H = w_0[x] w_0[y] w_0[z] c_0 r_1[y] r_2[x] r_3[y] w_1[y] w_3[z] r_2[z] w_2[z] c_2 c_1 c_3$
(same as (a), except for the last write operation)
- c. $H = w_0[x] w_0[y] w_0[z] c_0 r_1[y] r_2[x] r_3[y] w_1[y] w_3[x] r_2[z] w_2[y] c_2 c_1 c_3$
(same as (a), except for the third-to-last write operation)