CS 1555/2055: Database Management Systems Department of Computer Science, University of Pittsburgh

Serializability

Consider the following:

For each of the following histories with locking:

- Draw a serialization graph and state whether or not the history is serializable. If it is serializable, give an equivalent serial history.
- State whether or not the history follows 2PL.

50 points
$$H_1 = rl_1(x), r_1(x), wl_1(x), wl_1(x), rl_2(y), rl_2(y), ru_2(y), wl_1(y), c_2, wl_1(y), wul_1(x), wul_1(y), c_1$$

50 points $H_2 = wl_1(x), wl_1(x), wul_1(x), rl_3(y), rl_3(y), wl_2(x), wl_2(x), wl_2(x), wl_2(x), c_2, c_1, rl_3(y), c_3$

What to submit

In a **single** file, please submit your answers to all questions.

Name the file in following way: hw#-<your_username> (where # is the number of the assignment). Submit your assignment by the due date. **There is no late submission.**