

Homework 5 (60 Points)

As for the previous homework, submit one .zip file containing six text files named Q1.txt to Q6.txt, each containing the answer to the corresponding question. For each question about a schedule property, provide the answer ("yes" or "no") in the first line and a one paragraph justification of your result afterwards. Your justification might include a verbal description of a graph (e.g., the conflict graph) or specific parts of it (e.g., a cycle within the conflict graph).

Q1) (10 Points) Consider the schedule R1(A) W2(B) W3(C) W2(A) R2(C) - is this schedule final-state serializable?

Q2) (10 Points) Consider the schedule W1(A) R2(A) R2(B) W2(C) W1(B) - is this schedule view serializable?

Q3) (10 Points) Consider the schedule W2(B) R1(A) W3(C) R1(B) R2(B) R3(B) - is this schedule conflict serializable?

Q4) (10 Points) Consider the schedule W2(A) R1(C) W3(B) C2 R3(A) R1(B) W1(D) C1 - is this schedule recoverable?

Q5) (10 Points) Consider the schedule W1(A) W2(B) W3(A) C3 R2(A) - does this schedule avoid cascading aborts?

Q6) (10 Points) Consider the schedule W3(C) R1(A) W2(A) W1(C) - is this schedule strict?