CMSC 424 Homework 5

Due: Tuesday, May 3 @ midnight

1. Consider the following SQL query for a bank database

select T. branch_name
from branch T, branch S
where T.assets > S. assets and S.branch_city = "Brooklyn"

- a) Write a relational algebra expression (the tree form, preferably) representing this query
- b) Construct an equivalent relational algebra expression that is likely more efficient to execute.
- 2. Is the following schedule conflict serializable? Explain.

T1	T2	T3	T4	T5	T6	T7	T8
read(A)							
	write(B)						
		read(C)					
			write(A)				
				write(A)			
		write(B)					read(D)
						read(D)	
write(D)							
	read(D)						
write(E)							
					write(B)		
				read(F)			
					write(E)		
						read(F)	
							read(E)
		write(F)					
	read(B)						
				write(C)			
							write(F)