Lecture-27
SSL

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Conflict serializability

Non-conflicting instructions are those which can be swapped without affecting the transaction.

Schedule 1 and 3 are conflict equivalent. (one is ∥ other is serial)
→ They can be converted to each other by swapping ~~instr~~ instructions.

A concurrent schedule (such as 3) can be regarded as conflict serializable if it can be converted to equivalent serial schedule by swapping non-~~conf~~ conflicting instructions.

View serializability

Considering two schedules (1 parallel, 1 serial). They will be regarded view ~~serializable~~ equivalent when –

1. read(Q)

S_i	S_j
T_i	T_j
r(Q)	r(Q)

→ same transaction performs initial read

2. $T_j \xrightarrow{\text{updates}} W(Q)$ → same transactions read & write in order respectively in both schedules
$T_i \rightarrow r(Q)$
$T_i \not\rightarrow W(Q)$

3. $T_i \rightarrow W(Q)$ → same transaction performing final write in both schedules
$T_j \not\rightarrow W(Q)$

Recoverability

Lets say there are two transaction T_i and T_j, such that T_i performs change to the database on which T_j is to read. Then T_i must be allowed to perform commit first.

T_8	T_9
read(A)	
write(A)	
	read(A)
read(B)	