## ASSIGNMENT: 7 "DATABASE SYSTEMS"

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Section: BCSUC

Q:1

T,

T2

R(x)

w(x)

W(X) susp &

RLZ)

Ti

Tz

P(n)

T.T.

w(X)

w(y)

W(x) Swep P(z)

RUN) RLY) (47)

tire

(1)

R(n)

Ty

(, 17)

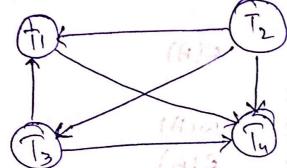
rini

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talu:

Ti 12 A SSIGNMENT! RIN) surp JATRY 8 W(Y) P(2) W(M) RIN) RLY) Tz Ti RLM) (Y)W w(x) RW) W(M) RW Tz TI RIN WY R(2) W(N) (r)w RUN RLY)

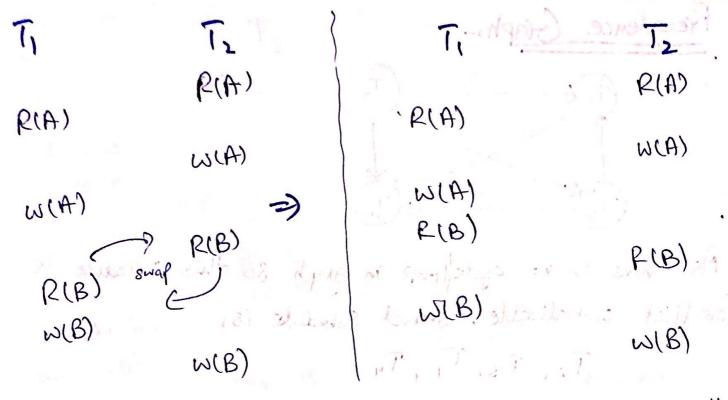
## Precedence Graphi-



As, there is no cyclelloop in graph 80 this schedule is conflict - scrializable. Seriel Schedule is,

Tz, T3, T1, T4

 $\begin{array}{c}
0.2 & T_1 \\
\hline
P(A) \\
\hline
P(A) \\
\hline
P(B) \\
P(B) \\
\hline
P(B) \\
P(B) \\
\hline
P(B$ 



No more swaps can be done as after swapping all non-conflict pair the transactions are still enembing concursionally. Son this schedule is not enabled serializable Isolation property is violated.

Goaphi

(T) (T2)

As, there is a opple. So, this schedule is not conflict - serializeable

 $T_2$ T2 Ti read CA) reed (A) read (B) reed (B) A: = A10 read (B) A = A-50 Wite (A) Such write (A). Swaf B,=B-10 recel (B) write (B)  $B_1 = B_{-10}$ write (B) B: = B+50 write (B) read (A) B1=8+50 A: = A+10 weite (B) read (A) white (A) A1 = A+10 uriteUAI 12 Ti T2 Ti read (A) read (A) read (B) reed (B) A= A-50 reed (B) read (B) A = A-SO B,=B-10 B = B-10 ustite (B) white (A) white (A) write (B) B1=B+50 ustite (B) B, = B+50 reed (A) White (B) A= A+10 read (A) write (A) A== A+10 write (A)

8			
7,	T2 1	Ti	T2
read (A)		read (A)	
read (B)		Year (B)	
A1 = A-50	read (B)	A2 = A-SO	read (B)
	B:= B-10		B1= B-10
	write (B)	weite (A)	write (B)
essite (A)	E)	B128450	
B12B450	reed (A)		read (A)
white (B) s	(6)	(11.10)	A== A+10
MOLLE	A, 2 A+10	weite (B) suap	al Ad
	write (A)		usiteut)
	1		
7	T. )	Ti	T <sub>2</sub>
7,	A. Come	red (A)	24
read (A)		read (B)	6
read (B)	(8112)	A1 = A-50 swap	reed (B)
Az = A-50	red (B) Br B-10		B = 8-10
	write(B)		write (B)
write (A)		- write(A)	141 1 000
B = B+50	surp read (A)	0 8160	read (4)
My man 1	A, = A+10	B12 B450	A, 2 A+10
21 4 24	White (A)	7/40%000	write(A)
whitelb)		(B)	
Warte !!			

T2 Ti Yead (A) read (B) reed (B) A12 A-SO B1= B-10 wlike(B) [write(A) red (B) B12 B450 A12 A+10 write CAY write (B) => If we supp all removing non-conflict pour then there will be always unflict in this area which means these can never be supped so, this schedule is not conflict socializable -> Teolation property being violated cycle I loop in graph