

Zhouyang Xue
104629708
CS143 HW #5

1.

A) Yes, it is serial, because the next transaction starts only after the previous transaction ends.

B) Yes, it is conflict serializable, because it is serial.

[A schedule is conflict serializable if it is serial, or if it is equivalent in result to a serial schedule.]

Equivalent serial schedules:

T1	T2	T3	T4
		Write(A)	
Read(A)			
Write(B)			
			Read(B)
	Read(B)		
	Write(C)		

2.

A)

Sequence: T1, T2, T3 & T1, T3, T2

name	daysoff
Larry Page	15
James Damore	15

Sum = 15 + 15 = 30

Sequence: T2, T1, T3

name	daysoff
Larry Page	26
James Damore	16

Sum = 26 + 16 = 42

Sequence: T3, T1, T2

name	daysoff
Larry Page	25
James Damore	0

Sum = 25 + 0 = 25

Sequence: T2, T3, T1

name	daysoff
Larry Page	36

James Damore	0
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Sum = $36 + 0 = 36$

Sequence: T3, T2, T1

name	daysoff
Larry Page	36
James Damore	1

Sum = $36 + 1 = 37$

Therefore, there are 5 possible returns. They are 25, 30, 36, 37, 42

B)

T1, ...

Sum = $15 + 15 = 30$

T2-1, T1, ...

Sum = $16 + 16 = 32$

T2, T1, T3

Sum = $26 + 16 = 42$

T2, T3-1, T1, T3-2

Sum = $36 + 16 = 52$

T2, T3, T1

Sum = $36 + 0 = 36$

T3-1, T1, ...

Sum = $25 + 15 = 40$

T3, T1, T2

Sum = $25 + 0 = 25$

T3, T2-1, T1, T2-2

Sum = $26 + 1 = 27$

T3, T2, T1

Sum = $36 + 1 = 37$

Therefore, there are 9 possible returns. They are 25, 27, 30, 32, 36, 37, 40, 42, 52