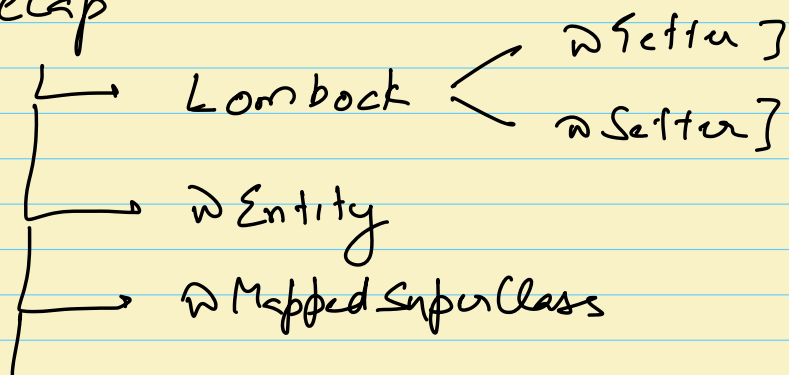


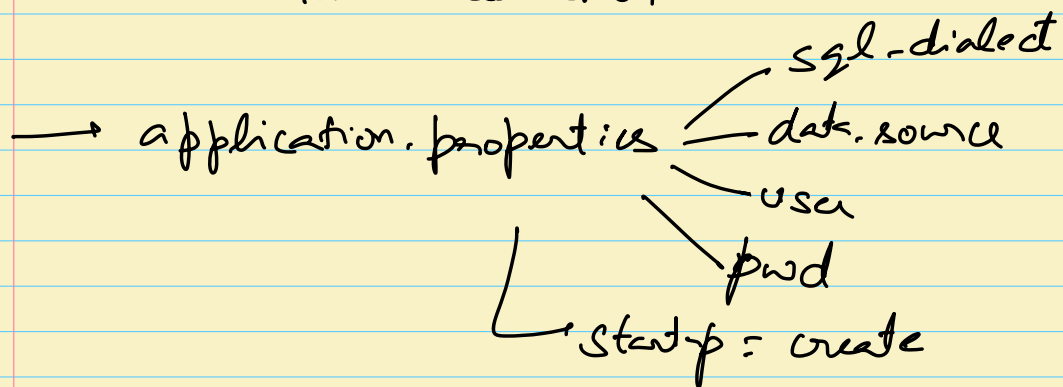
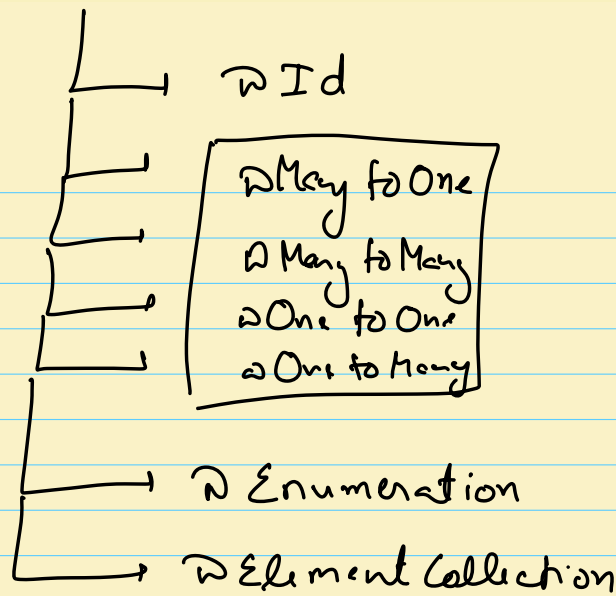
1. Good Evening
 2. Lecture begins at 9:05 pm
 3. Topic → Code BMS2
TTT Undo
-

Agenda

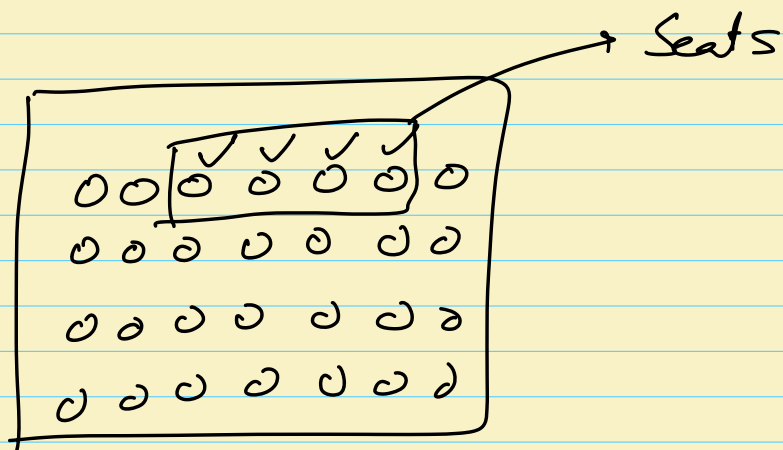
0. Recap.
 1. BMS → Book a ticket] C, S, R
 - ↳ Concurrency
 - ↳ Transactions.
 2. TTT - Undo ← ¹ Code ₂ ₃] Discuss
 - ↳ OI WS
-

Recap



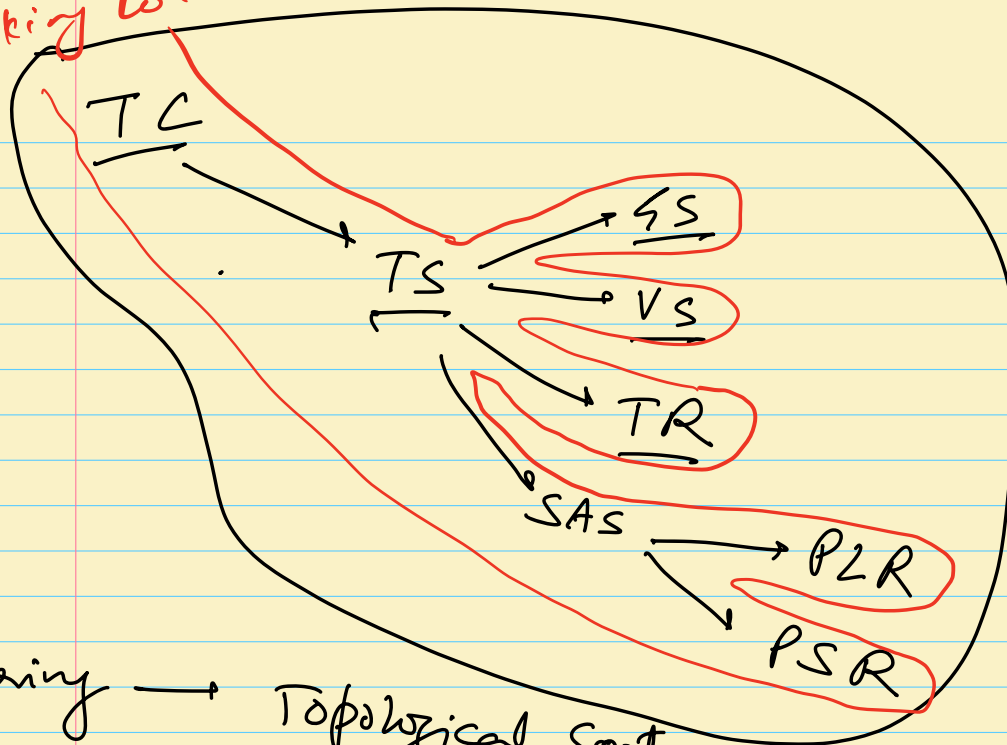


Book a Ticket



ShowSeat = Seat in a show

Parking lot

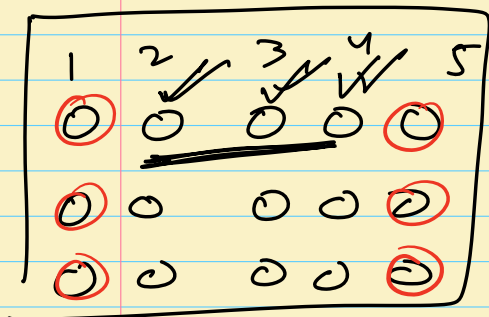


Spring → Topological Sort
 ↓ ↓
 Classes Dependency.

Select Movie
 Select Media

<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

U1

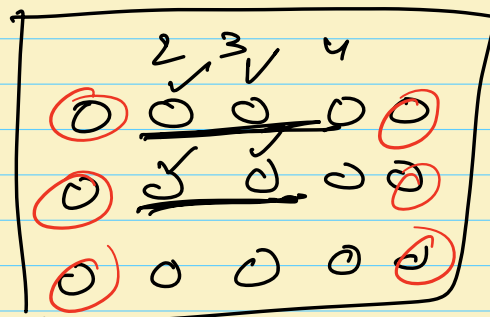


10:00

U1 ✓

2, 3, 4 → Locked

U2



10:05

U2 ✗

10:15

Booked ✓ → Never allow

Locked ? → Allow if locking was done

Available ✓ → Always allow
 Controller
BMS Booked 10:07

U1 2, 3, 4 → Locked at 10:05

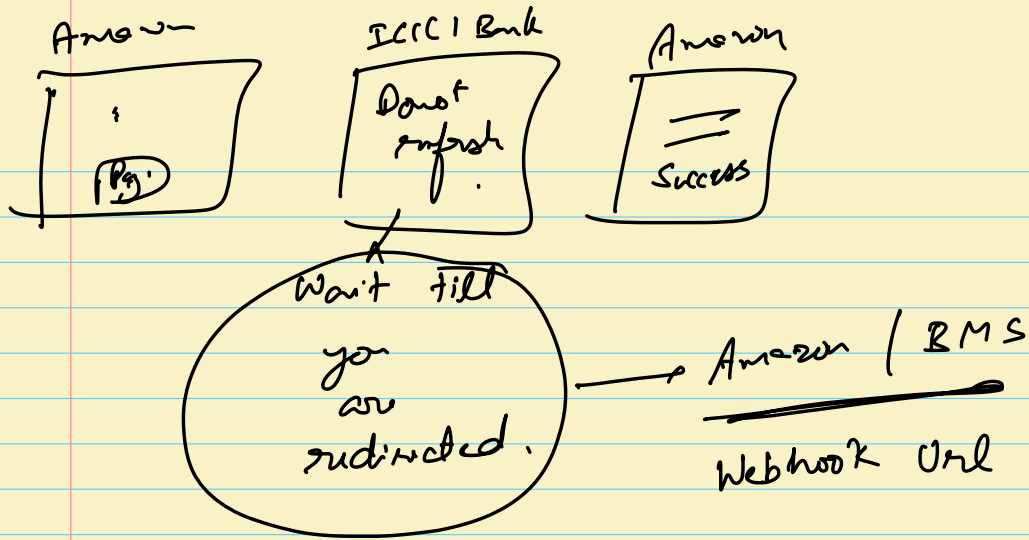
Payment Success

Payment Failure

Timeout

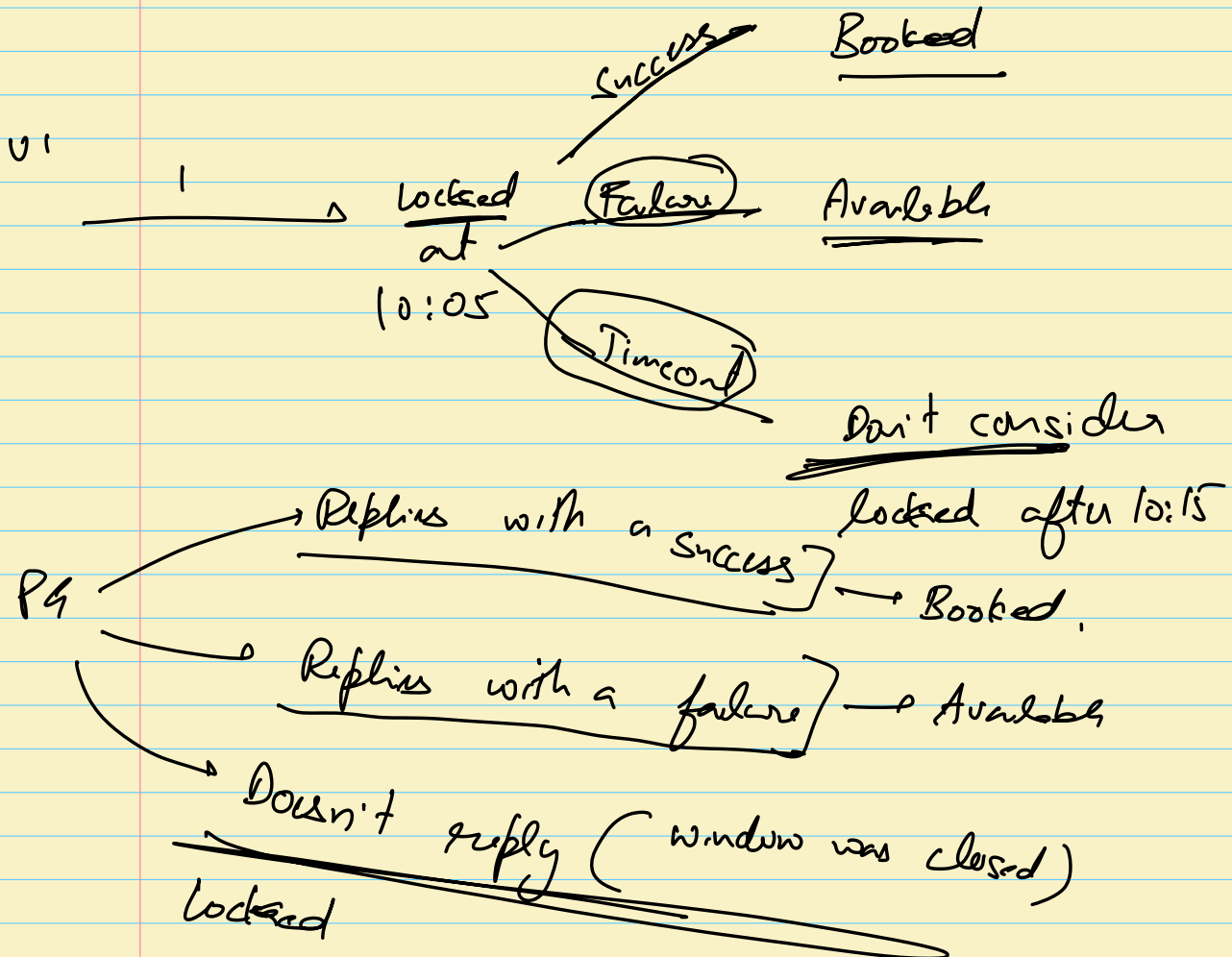
Available

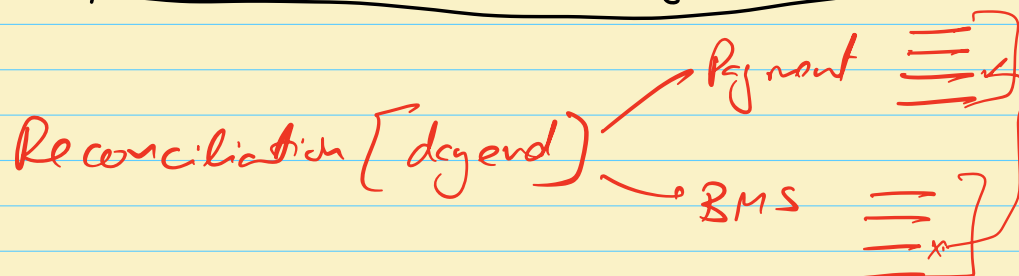
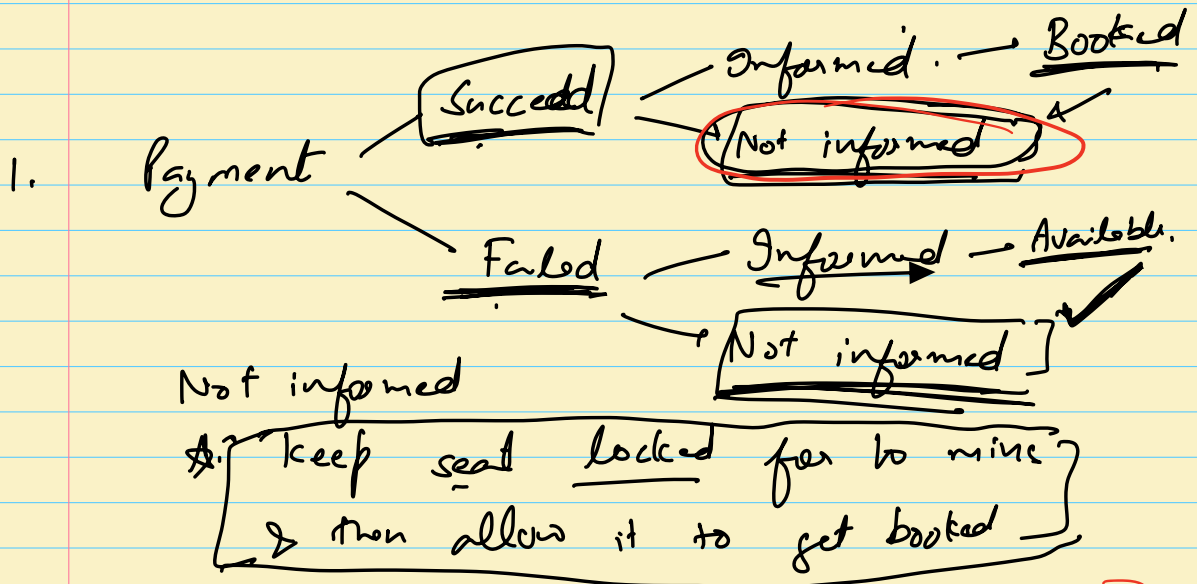
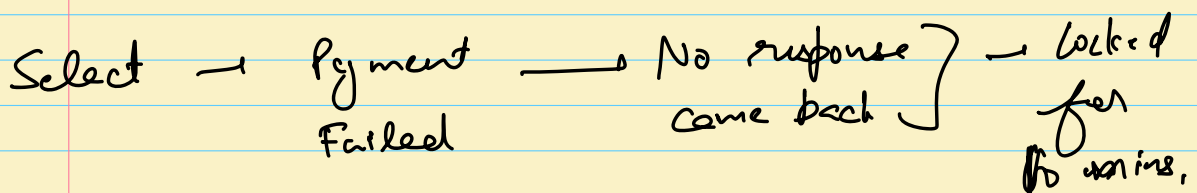
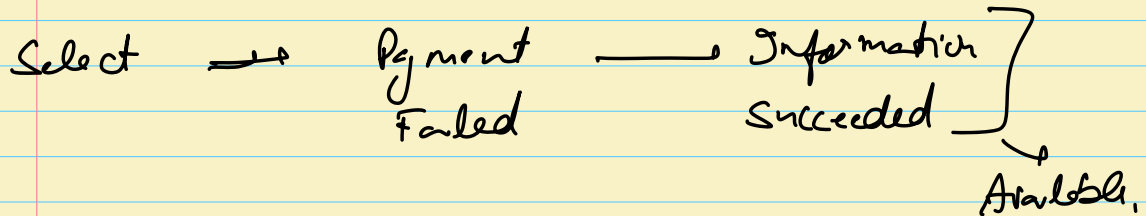
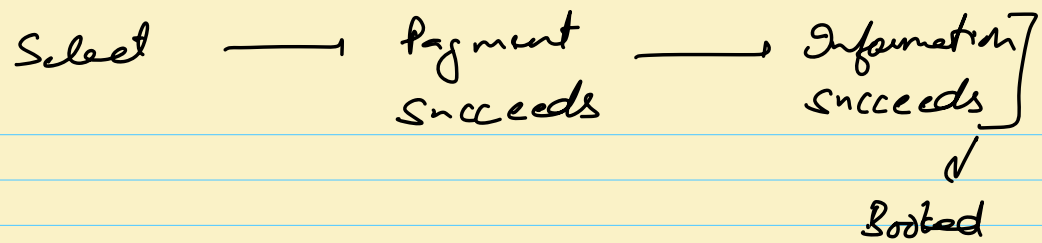
Locked 10:15



TC

CS to B





Workflow

1. BMS : Select the seats.
2. Payment Gateway : Makes a payment
- ↓
3. PG sends user back to BMS with success or failure.

Payment Success → Redirection to BMS succeeded

Locked ✓ ✓ → Booked

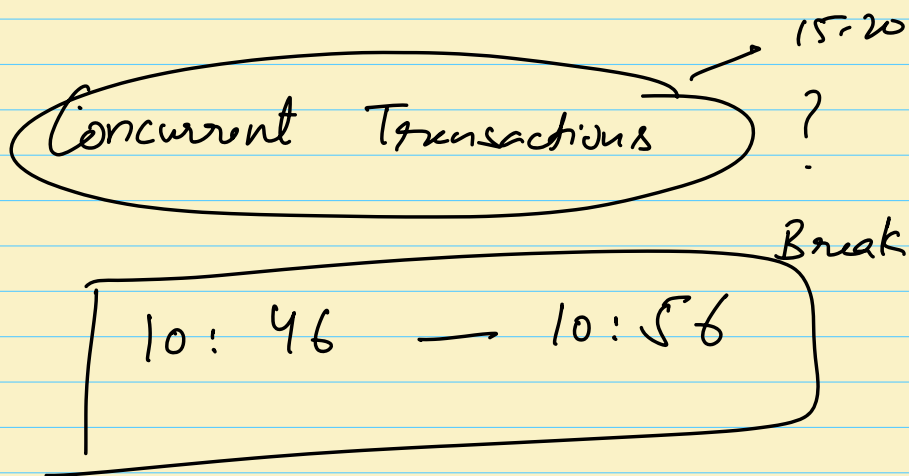
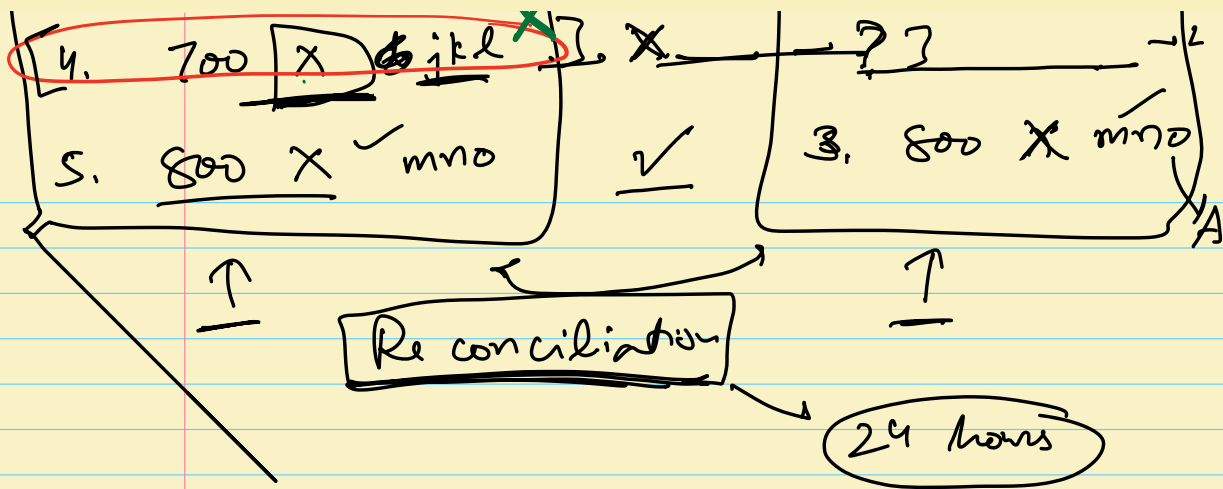
" X ✓ → Available

" X X → Locked ✓✓

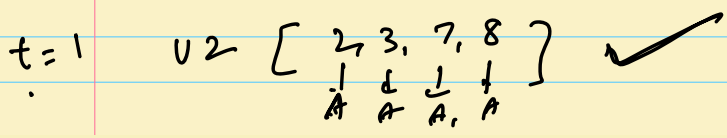
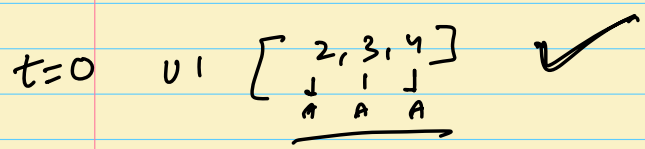
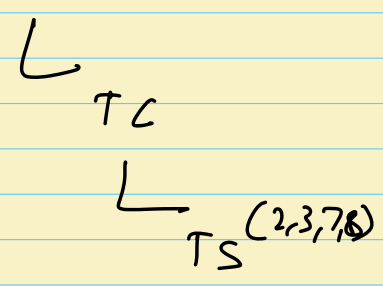
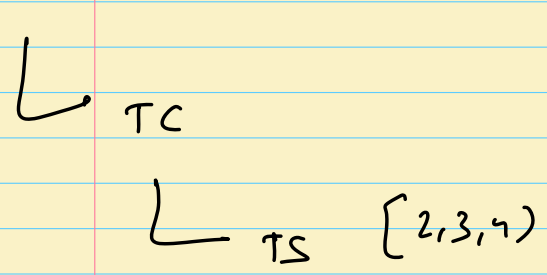
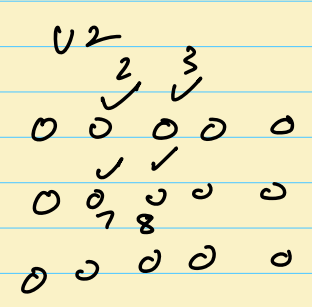
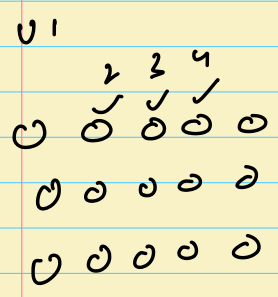
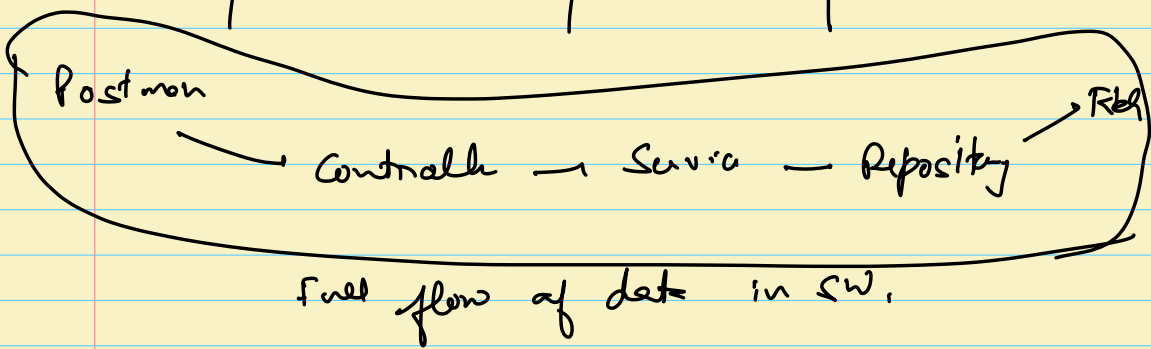
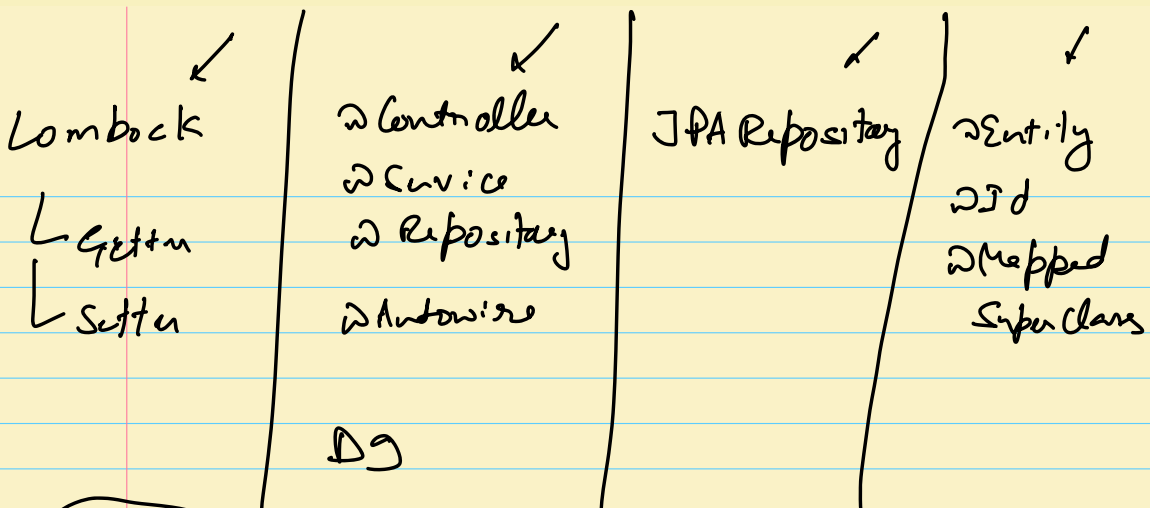
→ " ✓ X → Locked

↳ A Refund.

	PG		Redirection	BMS
1.	500 ✓ abc ✓		✓	1. 500 ✓ abc ✓
2.	500 ✓ def ✓		✗	2. ?
3.	600 ✓ ghi ✓		✓	3. 600 ✓ ghi ✓



1. Concurrent Transactions.
2. Repository Annotations.



t=2

U1 [2, 3, 4]
↓ ↓ ↓
L L L

U1
U1
U1
U1

5 A
6 A
7 A ✓
8 A ✓

t=3

U2 [2, 3, 7, 8]
↓ ↓ ↓ ↓
A A A A

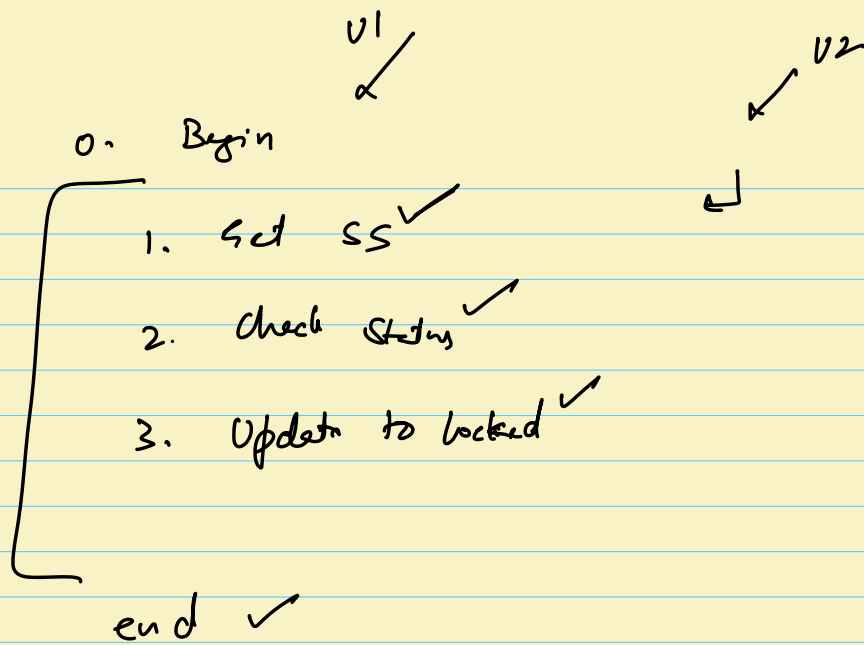
↓ my T

1. set all
2. ~~Update~~ Check ✓
3. Update to locked.

4. end

↓ OT Block
✓
✓

U1(1) ✓ | U2(1) | U1(2) ✓ | U2(2) Block | U1(3) ✓ | U2(3) Block/End
Block
Block
Block/End
U2(1) ✓ | U1(2) ✓



→ Why is this necessary?

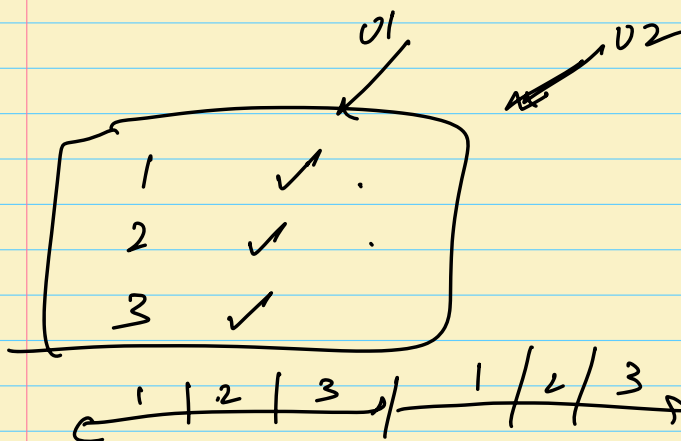
✓ U1 (2, 3, 4)

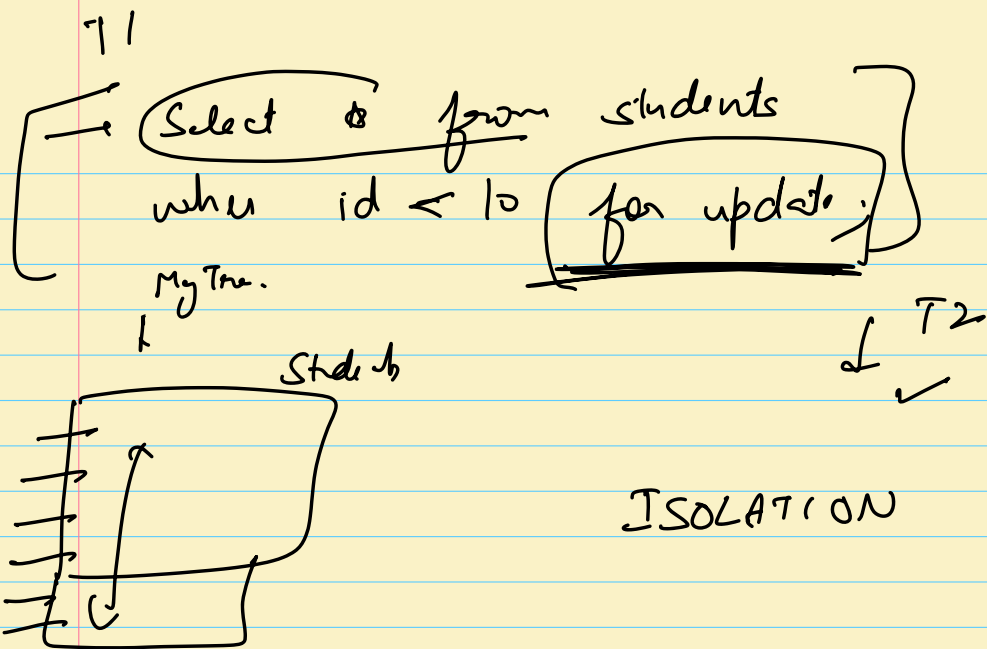
✓ U2 (1, 2, 3)

✓ U1 (2, 3, 4) → L

✓ U2 (1, 2, 3)

1	A
2	A L
3	A L
4	A L





ISOLATION

- ★ Row level - Table level lock
- ★ .Net syntax

