TRANSACTIONS

1-2 Thansactions - what / why
2) AUD Puoperties
3.7 commits/Roubacks
= 41 Isolation levels
- Read uncommitted
stout by 9:07 PM

accounts

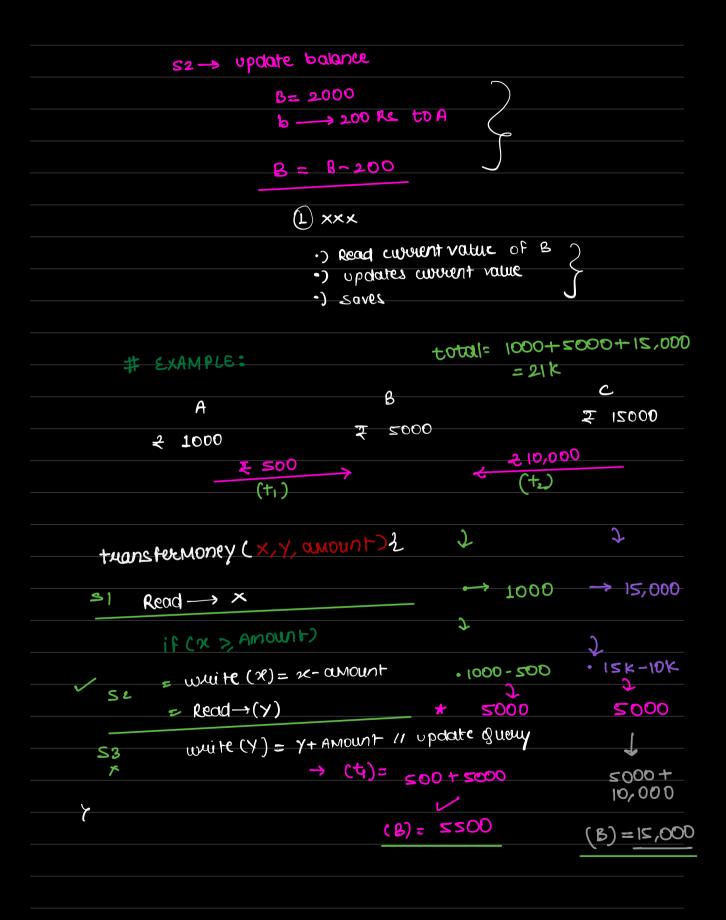
id	Name	balance
	yosh	0002
<u>1</u> 2	AMan	2000

operations:

S1
$$\rightarrow$$
 Read (select)

(S2 \rightarrow white (update)

(S3 \rightarrow white (update)



B= 15,000			
A = 500 =	20,500		
β= Σ 000			
Xxxx			
<u></u>			
usecose of transactions.	•		
(·) balance wet			
2.) horsistency			
	TRANSACTIONS:		
set of d/b quaires logically			
quouped together			
start transaction;			
St	syntov.		
S ₂			
\$3			
commit; OR ROUBack;			

*) ACID PR	operties:	
	(features of transaction)	
А	Atomic	
C	Consistency	
1	Isolation	
D	dwability	
1.) Atomic:		
1	Atom -> single unit	
,		
transo	iction vis either tompleted fully OR	
Not completed.		
→ should never find in Intermedials state ×××		
2.7 Consistenc	y:	
	exactness / correctness.	
	=	
3·) Isolation		
	teansaction should not affect	
0170	Other transaction on same data.	

4) Dwability:	
Perusi tence ->	
once the transaction is lompleted -	it should stay.
*) Rouback and Commit:	
> stout transaction;	
S 1 /	
s2 /	
23 \	
commit;	
<u> </u>	
Rouback:	
Start transaction;	
Sı	where id:
\$2.	199,
S3	Rowback,
XXX	

*) TRANSACTION ISOLATION LEVELS:

Justify - what you as a user will view data from soc.

4 levels of isolation:

1.3 Read uncommitted	- most unient
2.) Read committed	PSQL — defaut
3.) Repeatable Read	Mysgc - default
4.> serializable	, Most stuict

1.) READ UN COMMITTED!

even if that is uncommitted. / Committed.

S1 (session)	sa (sessions)	S3 (Read UNC)
staut trans;	start toans;	Read (a)
set a= 10	set a= 11	11
set a = 10;	set a= 11;	Read (a)
	commit;	빌

Advantages: latest data -> vory fost ? very Wrient A= 2000 B= 2000 *) PROBLEMS: bank transaction -> 22 [Read UN COMM.] [Repeatable Read] def 102 (T_2) 100 f (B-A) (A->b) Read (A) (4) Read (B) -> X 2000 1 2000. 001-X=X 1900 (2) x = x - A. 1990 white(x) -> B 1900 **(6)** write(x) -> A 1990 (3) 11 1990 (7)→Read(B)→X 2000 1990 Read(A) <u>(g)</u> X= X+100 XZ X +10 (প) → 2090 2010 write(A)-1 x -(a) write(B) -> x 2090 2010 we Read Latest value, which was Not committed / up dated. DIRTY READ syl-DIRTY Reads: Reading uncommit data from table --->

