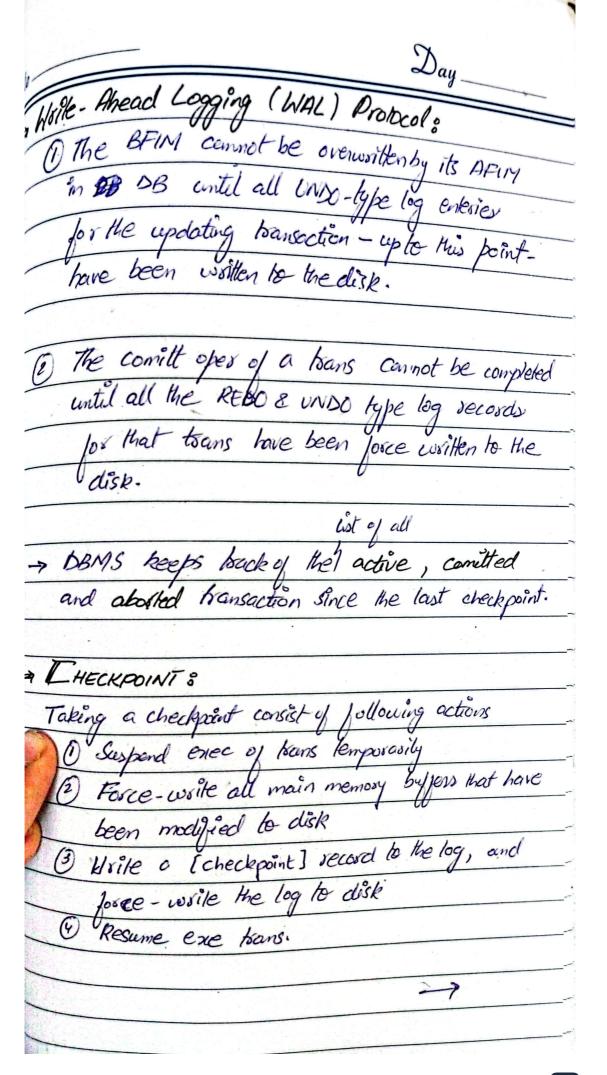
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Day
Two main strategies can be employed when flushing a medified buffer back to disk.
a modified buffer back to disk.
L. in-place Updating:
4 Wolles the byfer to the same to original
location on disk
4 overwrite the old value
4 so only a single copy is mantained.
La Shadowing:
is writer the medified buffer to diffe location
den to the multiple conies.
Before-image (BFIM) old value of data item After-image (AFIM) new value of data item
· Before-image (BFIM) old value of clata Hem
· After - image (AFIM) new value of data item
e Wolk-Ahead Logging:
Ly Ensure that BFIM is recorded
The state of the s
Ly Necessary for UNDE operation of the old value
Ly Necessary for UNDE operation if needed. UNDO-TYPE log enteries: include the old value "it needs to be worther
(BFIM) of the trems
REDO-TYPE log enteries: includes the new value latern
of the Hem which will be seq dusting redo.
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Date	Day
-> Rules that govern when a page 18	om DB cache
→ Rules that govern when a page for reem be written to disk	
· STEAL INO-STEAL Approach ;	
La No Steal Appr.: (UNDO WILL never	be regis
The deliver to Cache by per page applicated	by a bans
The agreed 4 Cache buffer page applicated update follows cannot be written to disk before the opposite comitt. (Thin pin bit = 1)	re the trans
comitt. (Thin pin bit = 1)	
Steal Appr. :	
	g an updated
byfes y before the bans comitts	
on to disk	
& FURCE (NO-FORCE Approach: (REDO	o not regin xe
1 Pource of a Krime	100
Otterwise no last before the trans	comitt
Otherwise, no force.	Conne.
-> Usually steal/no-force approach is u	
as it saves disk IIO Saves by per	RO
Saves byjer	



- Fuzzy Checkpointing &

 → In this technique the ongoing transaction need not to be stopped.
- -> The system can resume trans processing after a [begin-checkpoint] record is written to the log without having to wait for all buffers to be written to disk.
- -> When all record is written an [end-checkpoint,...) record is written.
- And the pointes to the checkpoint now points to the new checkpoint.

See peget 820 (Book).

