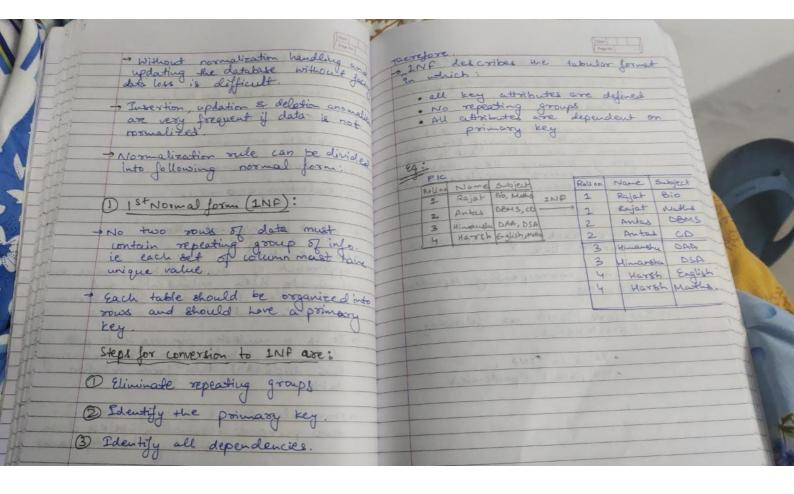
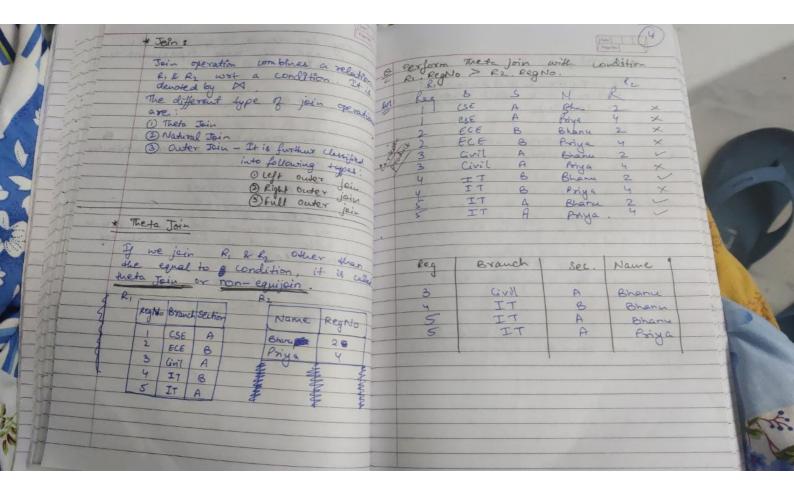


Mari	* Boyce & Codd Normal form (Barro	[m]	
	-It is higher version of sup	we can break the relationship R' into R, & R2 [R, (A, O, C)	
	- Deals with certain type of anough	R ₂ (D,B)	
	- A 3NF table which does not have multiple are rapping candidate they is said to be in BCNF.	<u>631</u>	
	for a table to be in BCNF following conditions must be latered		
	O'R' must be in 3NA. ② For each fD(X→Y), X should be super key		
	Consider a relation R(A,B, C,D) A -> BCD, BC-> AD, D-> B		The state of the s
	Above relationship is in BNP and teye are: A and BC.		-
	Functional dependency A-BCD, A is		
E	BC - AD BC is also a key but in B, D is not a key.		

The projection operation allowed produce or list the relation. It is represented by a greek letter (T) pie. (T) pie	Treat of	[Total French
The projection operation allowed produce or list the relation. It is represented by a greek letter (T) pie. (T) pie	* Projection operation.	Co. SELECT CN from depositor
The Intersect operation automatically eliminate duplicates. Set operations The Set operations SELECT CN from borrower Intersect CN from depositor SELECT CN from borrower SELECT CN from borrower The Set operation of the relations of the relat	The projection operation allows or but the relation. This	SELECT C-N from borrower
The Intersect operation automatically eliminate duplicates. Set operations The Intersect operation automatically eliminates on relations SELECT CN from borrower The Set operations SELECT CN from depositor To retain all duplicates duplicate To retain all duplicates Unional Except SELECT CN from depositor	represented by a greek letter (T) pie.	INTERSECT operations
Set operations The sol operations UNION, INTERSELT and EXCEPT 80 on relations Correspond to the relational algebra Operations U, A and **UNION operation: The automatically eliminates duplicate To retain all duplicates UNION All Except operation: SELECT CN from depositor Except operation: Except operation: SELECT CN from depositor Except operation: SELECT CN from depositor Except SELECT CN from depositor	Eg: Troan-no, amount (Loan)	
SELECT CN from borrower The SQL operations UNION, INTERSELT and EXEPT () on relations Correspond to the relational algebra SELECT CN from depositor Operations U, \(\) and \(\) SELECT CN from depositor. **UNION operation: **EXCEPT operation: **EXCEPT operation: **EXCEPT operation: **SELECT CN from depositor Ps wed SELECT CN from depositor	- list 2 columns	-ohin all dupucates INTERSECT
The sol operations UNION, INTERSELT and EXCEPT on relations correspond to the relational algebra operations U, M and — The automatically eliminates duplicate To retain all duplicates UNION ALL escept select CN from depositor Except SELECT CN from depositor Except SELECT CN from borrower SELECT CN from depositor SELECT CN from depositor SELECT CN from depositor SELECT CN from depositor	Cal posicion News	SELECT ON from borrower
The SQL operations UNION, INTERSECT and EXCEPT (IN from borrower correspond to the relational algebra INTERSECT ALL operations U, M and — SELECT CN from depositor. ** UNION operation: ** UNION operation: ** To retain all duplicates UNION ALL EXCEPT 2's used **SELECT (N from depositor SELECT (N from borrower SELECT (N from borrower SELECT (N from depositor SELECT (N from borrower SELECT (N from depositor SELECT (* SET OPETOUTIONS	INTERSECT ON from depositor
and EXCEPT 60 on relations correspond to the relational algebra operations U, n and - select cn from depositor. * UNION operation: * EXCEPT operation: * EXCEPT operation: * To retain all duplicates UNION ALL 2s used SELECT CN from depositor SELECT CN from borrower SELECT CN from borrower SELECT CN from depositor SELECT CN from depositor SELECT CN from depositor SELECT CN from depositor UNION	T. SOI A SOLITAN LINION TATES	Stoci Civing
correspond to the relational algebra INTERSECT ALL operations U, n and - SELECT CN from depositor. ** UNION operation: ** The automatically eliminates duplicate To retain all duplicates UNION ALL Except SELECT CN from depositor SELECT CN from borrower ** SELECT CN from depositor UNION SELECT CN from depositor SELECT CN from depositor SELECT CN from depositor	the sail operations on relations	WIELT IN from borrower
operations U, n and - SELECT CN from depositor. ** UNION operation: ** EXCEPT operation: ** EXCEPT operation: ** To retain all duplicates UNION ALL EXCEPT 2s used ** SELECT CN from depositor ** SELECT CN from borrower ** SELECT CN from depositor UNION ** SELECT CN from depositor SELECT CN from depositor UNION	conversed to the relational alogs.	INTERSECT ALL
To retain all duplicates UNION ALL EXCEPT 2s used SELECT CN from depositor Eg: SELECT CN from depositor 49: SELECT CN from depositor UNION EXCEPT SELECT CN from depositor EXCEPT ON from depositor	operations U, A and -	SELECT CN from depositor.
To retain all duplicates UNIONALL EXCEPT 2.5 wed SELECT CN from depositor SELECT CN from depositor UNION SELECT CN from depositor SELECT CN from depositor	* UNION operation:	* except operation:
Except SELECT CN from depositor UNION SELECT CN from depositor SELECT CN from depositor	- It automatically eliminates duplicate.	SFLECT (N from depositor
SELECT UN from depositor SELECT UN from depositor UNION SELECT UN from depositor EXCEPTIVE	10 retain all diplicates UNION ALL	
Eg: SELECT (N from depositor SELECT (N from depositor	"s wer	The state of the s
UNION SELECT IN FRANCE	Ca:	SECECI CITY FIRM COLLEGE
UNION SELECT IN FRANCE	SELECT CN from depositor	action in the depolitor
SELECT CN from borrosex EXCEPT ALL	UNION	SELECT ON From My Contor
	SELECT UN from borracer	EXCEPT ALL
SELECT UN from borrower SELECT UN from borrower.		SELECT C.N from Dorrower.





	- Admintages of Deadlock detection	[mi]
	are.	Persinvistic approach Optinisetic approach
	(i) Tuproved system stability (ii) Better resource utilization (iii) Easy implimentation 3 Disadv:	It locks record so to It doesnot log the selected record as it extures update will not record was not changed by changed meanting in time the select by another uper and submit operation
3	(ii) Performance overhead	conflict b/w transac less.
	(iii) False positives a regetives (iv) Tradeoff by performance complexity, accuracy and way	tomeactions is tour conducted in start conducted in start
	(1) Multiple granuality protocol	
	(1) Multiversion protocol (2) Intention mode Lock - intention time - shows a intention # Passimulatic approach y's optimistic approach	simple in designing > complex * proogramming * night storage cost > low as compared
17		concurrency Higher degree.
		supproach in useful of for fewer transaction where more transaction conflict.
	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The flow of transact - The flow of transact phases are:

