SNS COLLEGE OF TECHNOLOGY

Re-accredited by NAAC with A+ grade, Accredited by NBA(CSE, IT, ECE, EEE & Mechanical)
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First, second, third Normal Form

COURSE : 23CAT- Database Management System
UNIT III   : Database Design
CLASS   : I Semester / I MCA

❑ Developed in 1974 by Raymond F.Boyce and Edgar F.Codd

❑ BCNF is a stricter form of 3NF

❑ It applies to tables with more than one candidate key

❑ A relation is in BCNF if every determinant in the table is a candidate key. Ie LHS is super key

❑ If a table contains single candidate key, the 3NF and BCNF are equvalent

Super key: key can uniquely identify any row in a database

Candidate key: single or group of key can uniquely identify any row in a database

❑ A Relational Schema R is in BCNF, if whenever non trivial FD X->A holds in R then X is a super key of R

❑ Example employee table has,

Emp_id	Name	Dept_id	Qualification	Salary
E102	Hari	SA01	BE	25000
E104	Kumar	SB01	BE	21400

❑ Example has 3 determinates: Emp_id, Dept_id and qualification, and (Emp_id , Dept_id) is candidate keys. So it is not in BCNF

❑ Employee table is divided into

EXAMPLE

Emp_id	Dept_id	Salary
E102	SA01	25000
E104	SB01	21400

Employee table

Emp_id	Name	Qualification
E102	Hari	BE
E104	Kumar	BE

Salary table