

TASK-8

Normalizing databases using fundamental dependencies:

Aim: To normalize the employee database up to BCNF we decompose the schema using functional dependencies to estimate redundancy.

Initial relation schema:

Employee (Employee-ID, name, dept, job-title, manager-ID, hire-date, salary)

Functional dependency:

- * Employee - ID -> name, dept, job-title, manager-ID, hire-date, salary
- * Department - manager-ID
- * manager-ID \rightarrow name

Step by step normalization:

1NF (First normal form)

- no repeating groups (array in set form)
- already in 1NF

2NF (Second normal form)

- remove partial dependencies
- However, FDLF suggests dependencies non-primary key

Decomposition:

- \rightarrow Employee (Employee-ID, name, dept-ID, job-title, hire-date, salary)
- Department (dept-ID, manager-ID, name)

3NF (Third normal form):

- Eliminate transitive dependency is p-management name.
(extensive via)
Department → manager - ID.

updated tables:

Employee Employees, ID, name, department-ID,
job-title, hire date, salary).
Department (dept-ID, manager-ID).
manager (manager-ID, name).

BCNF:

- every determinate must be a candidate key
→ all remaining FDs were determinants that are candidate keys.

* Employee - ID
* department - ID
* manager - ID

no decomposition is needed

kind BCNF:

Employee (Employee-ID, name, dept-ID,
job-title, hire date, salary).
Department (dept-ID, manager---ID).
manager (manager-ID, name)

DATA IS STORED IN DBMS
DATA IS STORED IN DBMS
AMONGST OTHERS THAT ARE USED
FOR BUSINESS OR IN INDUSTRY.

DATA PROCESSING USING INFORMATION
TECHNOLOGY WHICH IS A
BUT IT IS ANOTHER THING THAT
IS POSSIBLE TO GET AN INFORMATION
SIMPLY BY FORM OF INFORMATION WHICH IS
BACK UP OF DATABASE WHICH IS
THE PICTURE OF ALL SORTS OF INFORMATION
WITH DIFFERENTIAL STATEMENT
OVER DATABASE WORKING AS
PROVIDED BY SQL BACKUP AND
RESTORE STATEMENT.

VEL TECH	
EX No.	8
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	8
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	8/10/13

result: thus, the database was normalized
to BCNF by decomposing it into employee
department & manager tables based on
functional dependency.