

## Task-8 :- Normalizing databases using fundamental

### a) defenders

Aim :- To normalize the employee database up to 3NF  
we decompose the schema using functional  
decompositions.

### Initial relation schema :-

Employee (employee ID, Name, department, job-title,  
i.e., manager-ID, date, salary.)

### functional dependences :-

\* Employee - ID → name, department, job-title  
 \* manager - ID → name, salary

\* Department → manager - ID

\* manager - ID → name

### step by step Normalization

1NF (first normal form)

- remove partial dependences  
 - However, for 1<sup>st</sup> NFD, guest dependences not on.

primary key.

### decompositions

→ Employee (Employee - ID, Name, department  
 ID, job - title, hire - date, salary.)  
 - department (Department - ID, manager <sup>ID, Name</sup>  
 3NF (Third normal form)

Name (transitive wa)

o Department → manager - ID

updated

Employee (employee - ID, name, department - ID,  
job - title - date salary)

department (department - ID, manager - ID)

manager (manager - ID, name)

BCNF :-

- every determine must be a candidate key
- All remaining fgs have dominate theatre candidate key.

\* employee - ID

\* department - ID

\* manager - ID

No decompositon is needed.

final BCNF

Employee (employee - ID)

Job - Title there, data sat

VEL TECH - CSE	
NAME	OS
PERFORMANCE (5)	+
SURVEY AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	0

DATA

1. Result :- Thus, the data base was, normalised to BCNF by decomposing manager table functional dependencies.