Homework 02 – Question 1 - Expected Solution

- ## 1NF

Ticket#	Raised on	Raised by Code	Raised by Name	Ticket Details	Assigned to Code	Assigned to Name	Status	Progress (Date, Time, Description)	Resolved on

Break Progress into multiple columns and records into multiple rows.

One is done below as an example.

Ticket#	Raised on	Raised by Code	Raised by Name	Ticket Details	Assigned to Code	Assigned to Name	Status	Date	Time	Description	Resolvedon
59	10Oct2018	EX019	Rahim Hasnani	DB service not starting	0192	Gul Ahmed	Closed	10 Oct	16:45	Talked to Rahim for details	12Oct2018
59	10Oct2018	EX019	Rahim Hasnani	DB service not starting	0192	Gul Ahmed	Closed	11 Oct	10:00	Visited Lab – in progress	12Oct2018
59	10Oct2018	EX019	Rahim Hasnani	DB service not starting	0192	Gul Ahmed	Closed	11 Oct	16:00	Issue fixed	12Oct2018
59	10Oct2018	EX019	Rahim Hasnani	DB service not starting	0192	Gul Ahmed	Closed	12 Oct	09:45	Closed after confirmation	12Oct2018

ServiceDeskLogs (Ticket #, raised on, raised by code, raised by Name, Ticket Detail, Assigned To Code, Assigned To Name, Status, Date, Time, Description, Resolved On)

Identifying Primary Key

ServiceDeskLogs **(Ticket #, Date, Time,** Description, raised on, raised by code, raised by Name, Ticket Detail, Assigned To Code, Assigned To Name, Status, Resolved On)

- ## 2NF

Functional Dependencies

Ticket#, Date, Time → Description

Ticket # → raised on, raised by code, raised by Name, Ticket Detail, Assigned To Code, Assigned To Name, Status, Resolved On

SCHEMA

ProgressDetails (**Ticket#, Date, Time,** Description)

ServiceDeskLogs (**Ticket #,** raised on, raised by code, raised by Name, Ticket Detail, Assigned To Code, Assigned To Name, Status, Resolved On)

- ## 3NF

Transitive Dependencies

Ticket# → Assigned to Code → Assigned To Name

Ticket# → Raised by Code → Raised by Name

Functional Dependencies

Ticket # → raised on, raised by code, Ticket Detail, Assigned To Code, Status, Resolved On

Ticket#, Date, Time → Description

SCHEMA

AssignedTo (**Assigned to Code,** Assigned To Name)

RaisedBy (**Raised by Code,** Raised by Name)

ProgressDetails (**Ticket#, Date, Time,** Description)

ServiceDeskLogs (**Ticket #,** raised on, **raised by code** (FK), Ticket Detail, **Assigned To Code** (FK), Status, Resolved On)