

Project Phase 3

Team number- 8

Team name- #mondaymorningclass

Sarah Roomi, Mahek Desai, Laveena Jain

Minor changes made to the database

- **SECRET AGENT Table:** We realised that {EmployeeID} and {Ssn} were individual candidate keys. We confused multiple candidate keys for a composite primary key. Hence, there is only one primary key in the table-Employee_ID.
- **BUSINESS Table:** Similarly, we realised {BusinessID} and {BusinessName} were individual candidate keys. Hence, only one primary key-BusinessID.

Relational Model:

Drive link: [Relational](#)

1NF Model:

Changes made from Relational->1NF:

- In the PEOPLE table, Contact was a multivalued attribute so we created a separate table for it and the SSN and Contact will be a composite key for that table.
- In the PEOPLE table, Name and Address were composite attributes so we divided it into individual attributes.
- In the PI DATA Table, Collected Info is a multivalued attribute. So we created a separate table for it and the PI DATA ID and Collected Info will be a composite key for that table.(No point in having just a table with PI DATA ID so this is the only table).
- In the CRIMINAL RECORDS table, Investigation Details is a composite attribute so we divided it into individual attributes.

Drive link: [1NF](#)

2NF Model:

Changes made from 1NF->2NF:

- In the CRIMINAL RECORDS table, the primary key is {Ssn,ReportID} but these non prime attributes- Date, Officer and Summary are only dependent on ReportID and not the Ssn. Hence, a non prime attribute is partially dependent on the primary key->2nf violated. So we have divided the table into two tables-One with SSN and ReportID and another with Report Details.

Drive Link: [2NF](#)

3NF Model:

Changes made from 2NF->3NF:

- In the PEOPLE table, Street and City are dependent on the SSN(PK) but the Zipcode is dependent on Street and City. One non prime attribute is dependent on a combination of other non prime attributes(which itself is dependent on primary key)->transitive dependency so we created another table called Street Details.

Drive Link: [3NF](#)