**NORMALIZATION:**

**PRISONERS DISTRIBUTED TO CELL (Many to One)**

**Unnormalized Form (UNF) :**

Distribute (P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City, D\_date, D\_time, Cell\_No, Cell\_Name)

**1NF ( 1st Normalized Form ) :**

There is no multi valued attribute. Relation already in **1NF.**

(P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City, D\_date, D\_time, Cell\_No, Cell\_Name)

**2NF ( 2nd Normalized Form ) :**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City.
* D\_date, D\_time.
* Cell\_No, Cell\_Name.

**3NF (3rd Normalized Form):**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age.
* House\_No, Street\_name, City.
* D\_date, D\_time.
* Cell\_No, Cell\_Name.

**TABLE CREATION:**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, **Cell\_No, D\_Id**, **A\_Id**.
* A\_Id, House\_No, Street\_name, City.
* D\_Id, D\_date, D\_time.
* Cell\_No, Cell\_Name.

**PRISONERS CHARGED CASE (One to Many)**

**Unnormalized Form (UNF) :**

Charge (P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City, Case\_Id, Case\_Type, Date, Duration)

**1NF ( 1st Normalized Form ) :**

There is no multi valued attribute. Relation already in **1NF.**

(P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City, Case\_Id, Case\_Type, Date, Duration)

**2NF ( 2nd Normalized Form ) :**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City.
* Case\_Id, Case\_Type, Date, Duration.

**3NF (3rd Normalized Form):**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age.
* House\_No, Street\_name, City.
* Case\_Id, Case\_Type, Date, Duration.

**TABLE CREATION:**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, **A\_Id**.
* A\_Id, House\_No, Street\_name, City.
* Case\_Id, Case\_Type, Date, Duration, **P\_ID**.

**PRISONERS HAS VISITORS (One to Many)**

**Unnormalized Form (UNF) :**

Visitor (P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City, V\_Name, V\_Id, V\_PhnNo, Relation).

**1NF ( 1st Normalized Form ) :**

There is no multi valued attribute. Relation already in **1NF.**

(P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City, V\_Name, V\_Id, V\_PhnNo, Relation).

**2NF ( 2nd Normalized Form ) :**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, House\_no, Street\_name, City.
* V\_Name, V\_Id, V\_PhnNo, Relation.

**3NF (3rd Normalized Form):**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age.
* House\_No, Street\_name, City.
* V\_Name, V\_Id, V\_PhnNo, Relation.

**TABLE CREATION:**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, **A\_Id**.
* A\_Id, House\_No, Street\_name, City.
* V\_Name, V\_Id, V\_PhnNo, Relation, **P\_ID**.

**OFFICERS CONTROL CELL (Many to One)**

**Unnormalized Form (UNF) :**

Control (O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post, House\_No, Street\_name, City, Cell\_No, Cell\_Name).

**1NF ( 1st Normalized Form ) :**

There is no multi valued attribute. Relation already in **1NF.**

(O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post, House\_No, Street\_name, City, Cell\_No, Cell\_Name).

**2NF ( 2nd Normalized Form ) :**

* O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post, House\_No, Street\_name, City.
* Cell\_No, Cell\_Name.

**3NF (3rd Normalized Form):**

* O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post.
* House\_No, Street\_name, City.
* Cell\_No, Cell\_Name.

**TABLE CREATION:**

* O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post, **Cell\_No**, **A\_Id1**.
* A\_Id1, House\_No, Street\_name, City.
* Cell\_No, Cell\_Name.

**TEMPORARY TABLES:**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, **Cell\_No, D\_Id**, **A\_Id**.
* A\_Id, House\_No, Street\_name, City.
* D\_Id, D\_date, D\_time.
* Cell\_No, Cell\_Name.
* ~~P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age,~~ **~~A\_Id~~**~~.~~
* ~~A\_Id, House\_No, Street\_name, City.~~
* Case\_Id, Case\_Type, Date, Duration, **P\_ID**.
* ~~P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age,~~ **~~A\_Id~~**~~.~~
* ~~A\_Id, House\_No, Street\_name, City.~~
* V\_Name, V\_Id, V\_PhnNo, Relation, **P\_ID**.
* O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post, **Cell\_No**, **A\_Id1**.
* A\_Id1, House\_No, Street\_name, City.
* ~~Cell\_No, Cell\_Name.~~

**FINAL TABLE:**

* P\_Name, P\_ID, P\_E-Mail, P\_PhnNo, P\_Age, **Cell\_No, D\_Id**, **A\_Id**.
* A\_Id, House\_No, Street\_name, City.
* D\_Id, D\_date, D\_time.
* Cell\_No, Cell\_Name.
* Case\_Id, Case\_Type, Date, Duration, **P\_ID**.
* V\_Name, V\_Id, V\_PhnNo, Relation, **P\_ID**.
* O\_Name, O\_Id, O\_E-mail, O\_PhnNo, O\_Post, **Cell\_No**, **A\_Id1**.
* A\_Id1, House\_No, Street\_name, City.