**NORMAIZATION**

**0 NF**

ADMIN TABLE

{**Admin\_Id,** Username, Password}

USER TABLE

{**NIC,** Full\_Name, Address, Gender}

USERPHONE TABLE

{**NIC,** Phone}

EMPLOYEE TABLE

{**Employee\_Id, NIC, Admin\_Id,** NIC, Date\_Of\_Birth, Username, Password}

CUSTOMER TABLE

{ **Customer\_Id, NIC, Employee\_Id,** Email, Age}

COMPLAINT TABLE

{**Complaint\_Id, Employee\_Id, Customer\_Id,** Type, Date, Details}

ACTION TABLE

{**Action\_Id, Complaint\_Id, Employee\_Id,** Details, Date}

**1NF**

* **These tables haven’t atomic valued attributes.**
* **These tables values stored in different domain**
* **Tables all columns have unique name**
* **Now Tables Are in 1NF**

**2NF**

* **Tables Already 1NF**
* **Haven’t Partial Dependencies**
* **Now Tables Are in 2NF**

**3NF**

* **Tables Already 2NF**
* **Haven’t Transitive Dependencies**
* **Now Tables Are In 3NF**

**Assumptions**

* **Every Customer Has A Complain.**
* **Action will be taken on every complaint added here**
* **There are May or may not be a solution to every complaint.**

**Data Dictionary**

ADMIN TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **Admin\_Id** | INT | primary key | primary key of the table |
| Username | VARCHAR | not null | user name |
| Password | VARCHAR | not null | password |

USER TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **NIC** | INT | primary key | primary key of the table |
| Full\_Name | VARCHAR | not null | user’s Full name |
| Address | VARCHAR | not null | User Address |
| Gender | VARCHAR | not null | User Gender |

USERPHONE TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **NIC** | INT | Foreign Key key | primary key of the user table |
| Phone | VARCHAR | not null | Phone number |

EMPLOYEE TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **Employee\_Id** | INT | primary key | primary key of the table |
| **NIC** | INT | Foreign Key | primary key of the user table |
| **Admin\_Id** | INT | Foreign Key | primary key of the admin table |
| NIC | INT | Not null | Nic of employee |
| Date\_Of\_Birth | DATE/TIME | Not null | Birthday of employee |
| Username | VARCHAR | Not null | Username |
| Password | VARCHAR | Not null | password |

CUSTOMER TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **Customer\_Id** | INT | primary key | primary key of the table |
| **NIC** | INT | Foreign key | primary key of the user table |
| **Employee\_Id** | INT | Foreign key | primary key of the employee table |
| Email | VARCHAR | not null | gender of the user |
| Age | INT |  | Age |

COMPLAINT TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **Complaint\_Id** | INT | primary key | primary key of the table |
| **Employee\_Id** | INT | not null | primary key of the employee table |
| **Customer\_Id** | INT | not null | primary key of the customer table |
| Type | VARCHAR | not null | Complaint type |
| Date | DATE/TIME | not null | date |
| Details | VARCHAR | not null | Complain details |

ACTION TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Constraints** | **Description** |
| **Action\_Id** | INT | primary key | primary key of the table |
| **Complaint\_Id** | INT | not null | primary key of the complaint table |
| **Employee\_Id** | INT | not null | primary key of the employee table |
| Details | VARCHAR | not null | Details of action |
| Date | DATE/TIME | Not null | Date |