

SQL DDL Code representing the Relational Schema

1. Code to Create Complaint Table -

```
CREATE TABLE IF NOT EXISTS `Complaint` ( `C_id` varchar(25) NOT NULL,
`Complaint_description` varchar(500) NOT NULL, `Status_id` tinyint(1) NOT NULL,
`assigned_id` varchar(25) DEFAULT NULL, `resolved` tinyint(1) NOT NULL, `notified`
tinyint(1) NOT NULL, `admin_request` tinyint(1) NOT NULL, `Date_of_complaint` date NOT
NULL, `location` varchar(250) NOT NULL, `nearby_location` varchar(125) NOT
NULL, `complaint_resolved_date` date NOT NULL, `Complaint_category` varchar( 125 ) NOT
NULL, `user_id` varchar(125) NOT NULL, PRIMARY KEY (`C_id`), KEY `assigned`
(`assigned`), KEY `user_id` (`user_id`));
```

2. Code to Create User Table -

```
CREATE TABLE IF NOT EXISTS `user` ( `User_id` varchar(25) NOT NULL,
`Password` varchar(125) NOT NULL, `Name` varchar(125) NOT NULL, `Address` varchar(250)
NOT NULL, `Contact_no` int(11) NOT NULL, `Email_id` varchar(125) NOT NULL, `type`
char(1) NOT NULL, `validity` date NOT NULL, PRIMARY KEY (`User_id`));
```

3. Code to Create Complaint_resolver Table -

```
CREATE TABLE IF NOT EXISTS `complaint_resolver` ( `cr_id` varchar(25) NOT NULL,
`Password` varchar(125) NOT NULL, `Name` varchar(125) NOT NULL, `Designation`
varchar(125) NOT NULL, `Division` varchar(125) NOT NULL, PRIMARY KEY (`cr_id`));
```

4. Code to Create admin table -

```
CREATE TABLE IF NOT EXISTS `admin` ( `a_id` varchar(25) NOT NULL, `Password`
varchar(125) NOT NULL, `Name` varchar(125) NOT NULL, `Designation` varchar(125) NOT
NULL, PRIMARY KEY (`a_id`));
```

5. Code to Create Feedback table -

```
CREATE TABLE IF NOT EXISTS `Feedback` ( `C_id` varchar(25) NOT NULL, `rating` tinyint(1)
NOT NULL, PRIMARY KEY (`C_id`));
```

6. Code to Alter Complaint Table to add foreign key -

```
ALTER TABLE `Complaint` ADD CONSTRAINT `Complaint_1` FOREIGN KEY (`assigned_id`)
REFERENCES `complaint_resolver` (`cr_id`) ON DELETE SET NULL ON UPDATE SET NULL;
```

7. Code to Alter Feedback Table to add foreign key -

```
ALTER TABLE `Feedback` ADD CONSTRAINT `Feedback_1` FOREIGN KEY (`C_id`)
REFERENCES `Complaint` (`C_id`) ON DELETE CASCADE ON UPDATE CASCADE;
```

8. Code to Alter Complaint Table to add foreign key -

```
ALTER TABLE `Complaint` ADD CONSTRAINT `Complaint_2` FOREIGN KEY (`user_id`)
REFERENCES `user` (`User_id`) ON DELETE CASCADE ON UPDATE CASCADE,
```

SQL DML CODE

1. Insert into user Table -

```
INSERT INTO `cms`.`user` (`User_id`, `Password`, `Name`, `Address`, `Contact_no`, `Email_id`,  
`type`, `validity`) VALUES ('E1', 'abc', 'Ankit Gupta', '42 sector-1 vikas nagar iit roorkee',  
'9845341234', 'ankit@gmail.com', 'employee', '2020-07-30'), ('S1', 'sacb', 'Ankita Sharma', 'G-77  
Sarojini Bhawan IIT Roorkee', '9809783456', 'anjita@gmail.com', 'student', '2016-07-30');
```

2. Insert into complaint Table -

```
INSERT INTO `cms`.`Complaint` (`C_id`, `Complaint_description`, `Status_id`, `assigned_id`,  
`resolved`, `notified`, `admin_request`, `Date_of_Complaint`, `location`, `nearby_location`,  
`Complaint_resolved_date`, `Complaint_category`, `user_id`) VALUES ('SW1', 'Leakage in  
Washroom Tap', '1', NULL, 'F', 'F', 'F', '2014-08-03', 'Sarojini Bhawan G Alaknanada ground floor  
washroom', 'Sarojini Bhawan', '0000-00-00', 'Water Leakage', 'E1'), ('EE1', 'Tube light damaged', '2',  
NULL, 'N', 'N', 'N', '2014-08-05', 'Computer Science department library room ', 'Computer and  
Electronics Department', '0000-00-00', 'Tube light related', 'S1');
```

3. Insert into Complaint_resolver Table -

```
INSERT INTO `cms`.`complaint_resolver` (`cr_id`, `Password`, `Name`, `Designation`, `Division`)  
VALUES ('W1', 'abcd', 'Sanjay Kumar', 'Head Water Division Treatment Manager', 'Water  
division'), ('E1', 'ancd', 'Deva Gupta', 'Head electrician', 'Electricity');
```

4. Insert into admin Table -

```
INSERT INTO `cms`.`admin` (`a_id`, `Password`, `Name`, `Designation`) VALUES ('A1', 'admin',  
'Naresh Gupta', 'IIT Adminstrator');
```