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**B.Sc. In Management Information Systems**

**CS304.3 Advanced Database Management System**

**3<sup>rd</sup> Year 1<sup>st</sup> Semester**

**Group Assignment - Report**

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**Mr. Saravanabavan Nasiketha**

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## Group Details

| Student ID | Name                | Email                                                                                |
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# **COMPANY PROFILE**

## **2019**

**BEST PEST SOLUTIONS AND SERVICES.**

**[BESTPESTSS@GMAIL.COM](mailto:BESTPESTSS@GMAIL.COM)**

BPSS | 112/9 Bakmeegaha road, Pore, Athurugiriya



# **BEST PEST** SOLUTIONS & SERVICES

## Our vision

To go forward in the pest control industry by providing most realistic and reliable solutions and services.

## Our Mission

Conducting of pest control treatments adhering to the government regulations and in an environment friendly manner.

## Introduction

|               |                                           |
|---------------|-------------------------------------------|
| Company Name  | - BestPest Solutions and Services         |
| Owner         | - Mr. Priyanka Priyadarshana BG           |
| Location      | - 112/9 Bakmeegaha road, Pre Athurugiriya |
| Business type | - Sole Proprietorship                     |

## Profile

Unwanted pests that infest in buildings and surrounding areas can pose serious risks to health and safety of occupants. BESTPEST solutions and services controls, manages, and remove these creatures from homes, apartments, offices, and other structures to protect people and to maintain buildings structural integrity.

To design and carry out integrated pest management plans, we know the identity and biology of a wide range of pests and also know the best ways to control and remove the pests.

Although roaches, rats, ants, and bed bugs are the most common pests, we at BEST PEST Solutions and Services are mainly focusing on termite treatments in both newly construct (preconstruction) and existing (post construction) buildings.

## Products and services

BEST PEST solutions and services typically do the following:

- Inspect buildings and premises for signs of pests or infestation
- Determine the type of treatment needed to eliminate pests
- Measure the dimensions of the area needing treatment
- Estimate the cost of their services
- Apply pesticides in and around buildings and other structures
- Design and carry out pest management plans
- Drive trucks equipped with power spraying equipment
- Create barriers to prevent pests from entering a building

## **Technical staff**

Island laws require pest control managers to be licensed. Most workers receive moderate on-the-job training., such as having a diploma or completing an apprenticeship, and passing a background check. Pest control workers typically advance as they gain experience. Applicators with several years of experience often become supervisors.

Most pest control workers begin as technicians, receiving both formal technical instruction and moderate-term on-the-job training from employers. They often study specialties such as rodent control, termite control, and fumigation. Technicians also must complete general training in pesticide use and safety. Pest control chemicals are toxic and can be harmful to humans, so care should be taken to use such chemicals properly. Although workers are trained and licensed for pesticide usage and wear protective equipment, some injuries and illnesses from pesticide exposure may still occur.

## **Quality**

From inspection to the service, we conduct very good rapport with our clients and provide most realistic solutions in controlling of pest and all treatments are conducted with well experienced supervision to fulfill the client's requirement and the satisfaction.

## **SCOPE**

This specification covers the general requirements for anti-termite constructional measures, chemical treatment of soils for the protection of buildings from attack by subterranean termites, chemicals to be used with their minimum rates of application and procedure to be followed while the building is under construction.

## **GENERAL**

The contractor shall furnish all tools, machines, and other instruments, qualified supervisory personnel, labor, materials, any temporary works, consumables, any and everything necessary whether or not such items are specifically states herein for completion of the job in accordance with specification requirements. All work shall be done in the order of progress required by Owner's construction program.

The contractor shall take all necessary precautions to prevent any accident in connection with the performance of the work. On final completion of all the work, the contractor shall leave the entire premises within the site of his operation clean and free from all rubbish resulting from his operation. The owner reserves the right to inspect, check and direct any or all operations at any

stage of the work and to required unsatisfactory work to be remedied at the contractor's expense. No work shall be carried out under unsuitable weather conditions viz. when raining or when the soil is wet due to rain or sub-soil water. Chemicals shall be brought to site of work in sealed original containers. The materials shall be brought in, at a time, in adequate quantity to suffice for the work. The materials shall be kept in cool and locked stores. The empties shall not be removed from the work site till the relevant item of work has been completed and permission granted by Owner / Engineer. Chemicals available in concentration forms with concentration indicated on the sealed containers only shall be used. Chemicals shall be diluted with water in required quantity before use.

## PROCESS

The process consists of identification of potential sub terranean pathways into super structure of the building and provision of solution to prevent them at designing an initial construction stage. The construction of physical and chemical barriers in soil will block termite gaining in to the building. The physical barriers such as termite caps , shields ,concrete damp proof course and other suitable means could be incorporated in to building at the designing stage with consultation of professionals since total prevention process is an integrated approach the chemical barriers will compensate the rest

There are two types of standard soil chemical barriers.

01. Horizontal termiticide barrier.
02. Vertical termiticide barrier.

- Horizontal termiticide barrier.

This prevents soil termite movement via horizontal plane of the building, especially through ground floor cracks. Treating soil at the foundation trench bed and drenching the soil immediately before laying ground the floor slab makes the main horizontal barrier standard rate of application of prepared termiticide solution is 3 – 5 litterers per square meter. However, the trench bed treatment can be skipped if there is a physical barrier (such plinth beam or 2- 253 concrete layer / concrete DPC) on the top the rubble or masonry foundation also if the foundation is of poured concert the trench bed treatment is not essential.

- Vertical termiticide barrier.

This barrier blocks termites' pathways through vertical plane of building at ground level, especially via wall floor junction gap and lateral planes of ground rubble work. A prepared aqueous solution an approved termiticide is applied at rate of 3 – 5 lit per linear meter of both side of the foundation footings. In case of deeper foundations without proper concrete DPC or plinth beam, the termiticides are applied under high pressure by means of sub soil injectors to ensure uniform dispersion of termiticide. This process or rodding or carried out at closer intervals along the foundation.

## **Termiticides**

An approved termiticide by registrar of pesticides in Sri Lanka would be used. Below given some approved termiticides.

Trade names Active Ingredients Registered in sri lanka

- Biflex /Bisect Bifenthrin 10% EC B32
- Agenda Fipronil 2.5 % EC A58

The concentration of termiticide solution: Refer to the manufactures recommendation and specifications.

## **The pest control operators**

The operator should be geared with all personal protective equipment and other safety gear to ensure environmental and human safety during and after the operation.

## **Time of termite treatment**

Treatment could be carried out at many stages. Mainly there're 03 stages.

01. Trench treatment:

Mainly horizontal barriers of trench bed and optionally vertical barriers of backfilled soils of ground rubble work.

02. Sub ground slab treatment:

Vertical barrier at wall floor junction and horizontal barrier beneath the ground floor slab just before laying ground floor.

03. Outer perimeter treatment:

Vertical barrier around the building, if permits at final stage after landscaping. The spot treatment on utility service lines such as electrical and plumbing where they contact soil would be carried out at this stage.

## **Post construction under slab treatments**

For concrete slabs, the termiticide needs to be injected through predrilled holes through the slab at intervals between 1-3 feet. Recommended volume of spray solution required per hole, depending on the soil type approx. 3-5 liters per hole. Lateral dispersion tips are recommended. Drill holes must be re-sealed following injection of the termiticide. The decision and/or need for drilling concrete floor slabs should only be made after a thorough inspection of the building. The degree of termite activity should also be taken in to consideration.

## **Warranty**

The standard warranty offered is for five-year period subjected to regular inspection of the building by trained pest control technicians. None of the modern termiticides lasts very longer period in the soil due to their environmental friendly degradation. The termiticides available few years ago such as DDT, Aldrin, and Dialdrin could persist in the soil longer period, generally more than 10 years. These termiticides belong to a category of organo chlorine (chlorinated hydrocarbon), which is environmentally hazardous due to its slow degradation and bio accumulation. The organo chlorine termiticides were totally phased out in Sri lanka.



## BESTPEST SOLUTIONS & SERVICES

Providing most realistic pest control solutions

LIC NO: PCS/WP/074

RRG NO: W/204730

Priyanka Priyadarshana BG  
(Proprietor and the chief managing officer- BestPest Solution and Services)  
112/9 Bakmeegaha road,Pore  
Athurugiriya

December 15, 2020

### To whom it may concern

#### Authorization Letter to Process Documents and Data

I, Priyanka Priyadarshana BG, hereby grant Chamod Kavinda the authorization to process any and all documents in my name, BestPest Solution and Services and sign on my behalf. In order to expedite the process, I've included information for identification purposes.

Authorized Person: Chamod Kavinda  
Identity Type: National identity card  
National identity card Number: 981202155v  
Scope of Documents: Any and all

.....  
Chamod Kavinda

The permission to process documents in my name starts on December 15, 2020 and ends January 16, 2021.

Sincerely,

.....  
Priyanka Priyadarshana

(Proprietor and the chief managing officer- BestPest Solution and Services)

December 15, 2020

## **Current Problem & The Solution**

In this company the existing system is functioning very well, they have well-functioning and up to date resource managing service. But this system does not manage the incoming complains properly. Actually there is only one landline no and the service representative can't manage the complaints at the end of day. Best pest solutions and services gives their services all around the sri lanka since 2014/2016. So coming up with complains is very usual thing in this business because this companies' main procedures are based on environment.

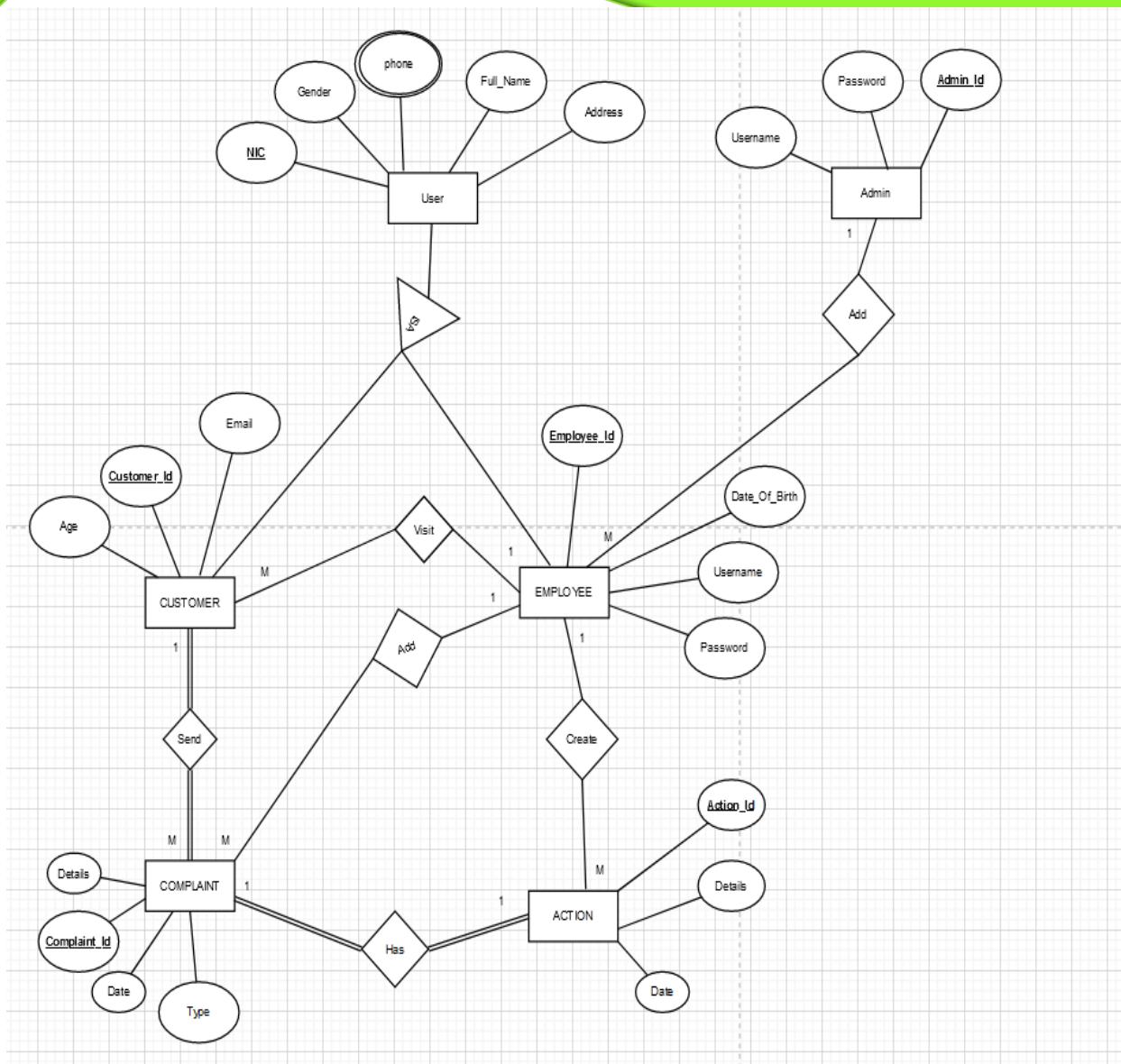
So we agreed to setup a complaint processing /Managing system properly with permission of their managing offices and the CEO which can perform well in real time scenarios. At the end of the day, the management and representatives can identify, Manage, process their daily complaints easily and can predict upcoming complaints in the future.

The following factors are considering before the making the system.

Complaints are categorizing in to 3 main sections.

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| 1) Normal Complains    | 2) Emergency Complains | 3)Without Warranty |
| Within the time period | Unexpected situation   | After 5 years      |

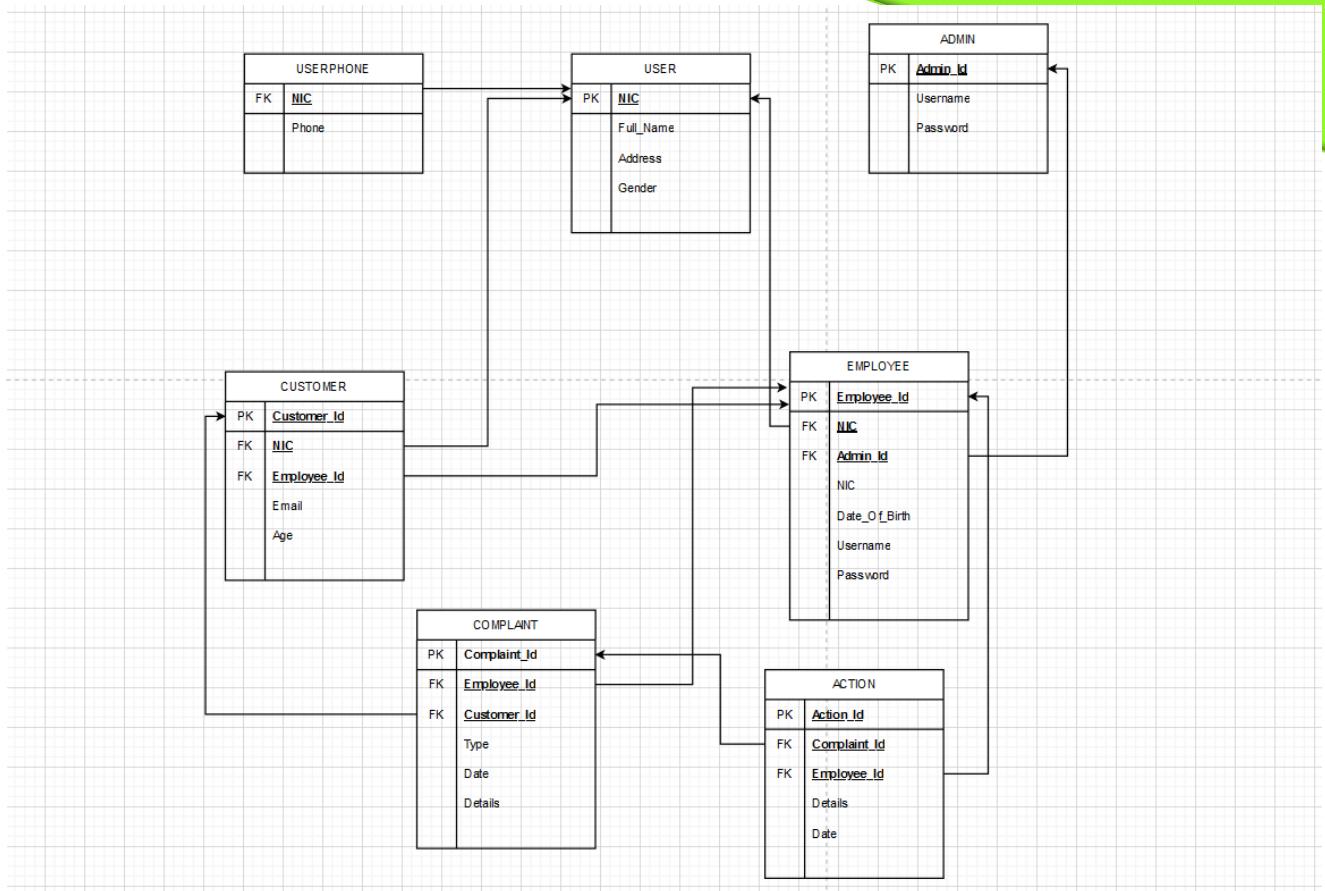
## ER diagram



## 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.

# Relational mapping



## Data Normalization

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

## **Data Dictionary**

### **ADMIN TABLE**

| <b>Field Name</b> | <b>Data Type</b> | <b>Constraints</b> | <b>Description</b>       |
|-------------------|------------------|--------------------|--------------------------|
| <u>Admin_Id</u>   | INT              | primary key        | primary key of the table |
| Username          | VARCHAR          | not null           | user name                |
| Password          | VARCHAR          | not null           | password                 |

### **USER TABLE**

| <b>Field Name</b> | <b>Data Type</b> | <b>Constraints</b> | <b>Description</b>       |
|-------------------|------------------|--------------------|--------------------------|
| <u>NIC</u>        | 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**

| <b>Field Name</b> | <b>Data Type</b> | <b>Constraints</b> | <b>Description</b>            |
|-------------------|------------------|--------------------|-------------------------------|
| <u>NIC</u>        | INT              | Foreign Key key    | primary key of the user table |
| Phone             | VARCHAR          | not null           | Phone number                  |

### EMPLOYEE TABLE

| Field Name         | Data Type | Constraints | Description                    |
|--------------------|-----------|-------------|--------------------------------|
| <u>Employee_Id</u> | INT       | primary key | primary key of the table       |
| <u>NIC</u>         | INT       | Foreign Key | primary key of the user table  |
| <u>Admin_Id</u>    | 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                       |
|--------------------|-----------|-------------|-----------------------------------|
| <u>Customer_Id</u> | INT       | primary key | primary key of the table          |
| <u>NIC</u>         | INT       | Foreign key | primary key of the user table     |
| <u>Employee_Id</u> | INT       | Foreign key | primary key of the employee table |
| Email              | VARCHAR   | not null    | gender of the user                |
| Age                | INT       |             | Age                               |

### COMPLAINT TABLE

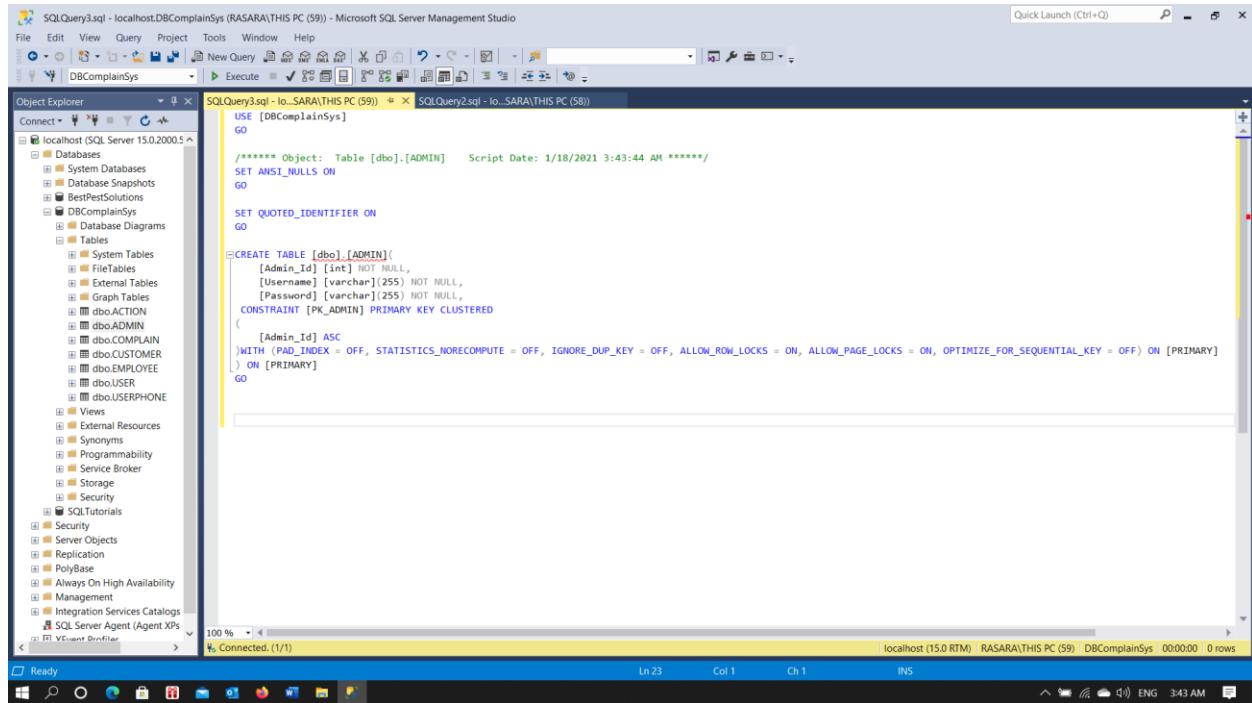
| Field Name          | Data Type | Constraints | Description                       |
|---------------------|-----------|-------------|-----------------------------------|
| <u>Complaint_Id</u> | INT       | primary key | primary key of the table          |
| <u>Employee_Id</u>  | INT       | not null    | primary key of the employee table |
| <u>Customer_Id</u>  | 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                        |
|---------------------|-----------|-------------|------------------------------------|
| <u>Action_Id</u>    | INT       | primary key | primary key of the table           |
| <u>Complaint_Id</u> | INT       | not null    | primary key of the complaint table |
| <u>Employee_Id</u>  | INT       | not null    | primary key of the employee table  |
| Details             | VARCHAR   | not null    | Details of action                  |
| Date                | DATE/TIME | Not null    | Date                               |

## Screenshots of all the table creation statements

## ADMIN TABLE



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the DBComplainSys database and its tables like ACTION, ADMIN, COMPLAIN, CUSTOMER, EMPLOYEE, and USERPHONE. The central pane displays the T-SQL script for creating the ADMIN table:

```

USE [DBComplainSys]
GO

***** Object: Table [dbo].[ADMIN] Script Date: 1/18/2021 3:43:44 AM *****
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[ADMIN](
    [Admin_Id] [int] NOT NULL,
    [Username] [varchar](255) NOT NULL,
    [Password] [varchar](255) NOT NULL,
    CONSTRAINT [PK_ADMIN] PRIMARY KEY CLUSTERED
    (
        [Admin_Id] ASC
    )WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO

```

## USER TABLE

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'DBComplainSys'. The central pane displays the T-SQL script for creating the 'USER' table:

```
USE [DBComplainSys]
GO

***** Object: Table [dbo].[USER] Script Date: 1/18/2021 3:45:18 AM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[USER](
    [NIC] [varchar](255) NOT NULL,
    [Full_Name] [varchar](255) NOT NULL,
    [Address] [varchar](255) NOT NULL,
    [Gender] [varchar](255) NOT NULL,
    CONSTRAINT [PK_USER] PRIMARY KEY CLUSTERED
    (
        [NIC] ASC
    )WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
```

The status bar at the bottom indicates 'Connected. (1/1)', 'localhost (15.0 RTM) | RASARA\THIS PC (62) | DBComplainSys | 00:00:00 | 0 rows', and the system tray shows network and battery status.

## USERPHONE TABLE

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'DBComplainSys'. The central pane displays the T-SQL script for creating the 'USERPHONE' table and establishing a foreign key constraint:

```
USE [DBComplainSys]
GO

***** Object: Table [dbo].[USERPHONE] Script Date: 1/18/2021 3:45:39 AM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[USERPHONE](
    [NIC] [varchar](255) NOT NULL,
    [Phone] [int] NOT NULL
) ON [PRIMARY]
GO

ALTER TABLE [dbo].[USERPHONE] WITH CHECK ADD CONSTRAINT [FK_USERPHONE_USER] FOREIGN KEY([NIC])
REFERENCES [dbo].[USER] ([NIC])
GO

ALTER TABLE [dbo].[USERPHONE] CHECK CONSTRAINT [FK_USERPHONE_USER]
GO
```

The status bar at the bottom indicates 'Connected. (1/1)', 'localhost (15.0 RTM) | RASARA\THIS PC (54) | DBComplainSys | 00:00:00 | 0 rows', and the system tray shows network and battery status.

## EMPLOYEE TABLE

```

SQLQuery6.sql - localhost.DBComplainSys (RASARA\THIS PC (60)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
localhost (SQL Server 15.0.2000.5)
Databases System Databases Database Snapshots BestPestSolutions DBComplainSys Database Diagrams System Tables FileTables External Tables Graph Tables dbo.ACTION dbo.ADMIN dbo.COMPLAIN dbo.CUSTOMER dbo.EMPLOYEE dbo.USER dbo.USERPHONE Views External Resources Synonyms Programmability Service Broker Storage Security SQLTutorials Security Server Objects Replication PolyBase Always On High Availability Management Integration Services Catalogs SQL Server Agent (Agent XPs)
SQLQuery6.sql - lo...SARA\THIS PC (60) SQLQuery5.sql - lo...SARA\THIS PC (61) SQLQuery4.sql - lo...SARA\THIS PC (56) SQLQuery3.sql - lo...SARA\THIS PC (59)
USE [DBComplainSys]
GO
***** Object: Table [dbo].[EMPLOYEE] Script Date: 1/18/2021 3:44:56 AM *****
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[EMPLOYEE](
[Employee_ID] [int] NOT NULL,
[Admin_Id] [int] NOT NULL,
[NIC] [varchar](255) NOT NULL,
[Date_of_Birth] [date] NOT NULL,
[Username] [varchar](255) NOT NULL,
[Password] [varchar](255) NOT NULL,
CONSTRAINT [PK_EMPLOYEE] PRIMARY KEY CLUSTERED
(
[Employee_ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
)
GO
ALTER TABLE [dbo].[EMPLOYEE] WITH CHECK ADD CONSTRAINT [FK_EMPLOYEE_ADMIN] FOREIGN KEY([Admin_Id])
REFERENCES [dbo].[ADMIN] ([Admin_Id])
GO
ALTER TABLE [dbo].[EMPLOYEE] CHECK CONSTRAINT [FK_EMPLOYEE_ADMIN]
GO
ALTER TABLE [dbo].[EMPLOYEE] WITH CHECK ADD CONSTRAINT [FK_EMPLOYEE_USER] FOREIGN KEY([NIC])
REFERENCES [dbo].[USER] ([NIC])
GO
ALTER TABLE [dbo].[EMPLOYEE] CHECK CONSTRAINT [FK_EMPLOYEE_USER]
GO

```

Connected: (1/1)    localhost (15.0 RTM) | RASARA\THIS PC (60) | DBComplainSys | 00:00:00 | 0 rows

## CUSTOMER TABLE

```

SQLQuery5.sql - localhost.DBComplainSys (RASARA\THIS PC (61)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
localhost (SQL Server 15.0.2000.5)
Databases System Databases Database Snapshots BestPestSolutions DBComplainSys Database Diagrams System Tables FileTables External Tables Graph Tables dbo.ACTION dbo.ADMIN dbo.COMPLAIN dbo.CUSTOMER dbo.EMPLOYEE dbo.USER dbo.USERPHONE Views External Resources Synonyms Programmability Service Broker Storage Security SQLTutorials Security Server Objects Replication PolyBase Always On High Availability Management Integration Services Catalogs SQL Server Agent (Agent XPs)
SQLQuery5.sql - lo...SARA\THIS PC (61) SQLQuery4.sql - lo...SARA\THIS PC (56) SQLQuery3.sql - lo...SARA\THIS PC (59) SQLQuery2.sql - lo...SARA\THIS PC (58)
USE [DBComplainSys]
GO
***** Object: Table [dbo].[CUSTOMER] Script Date: 1/18/2021 3:44:32 AM *****
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[CUSTOMER](
[Customer_ID] [int] NOT NULL,
[NIC] [varchar](255) NOT NULL,
[Employee_ID] [int] NOT NULL,
[Email] [varchar](255) NOT NULL,
[Age] [int] NOT NULL,
CONSTRAINT [PK_CUSTOMER] PRIMARY KEY CLUSTERED
(
[Customer_ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
)
GO
ALTER TABLE [dbo].[CUSTOMER] WITH NOCHECK ADD CONSTRAINT [FK_CUSTOMER_EMPLOYEE] FOREIGN KEY([Employee_ID])
REFERENCES [dbo].[EMPLOYEE] ([Employee_ID])
GO
ALTER TABLE [dbo].[CUSTOMER] CHECK CONSTRAINT [FK_CUSTOMER_EMPLOYEE]
GO
ALTER TABLE [dbo].[CUSTOMER] WITH CHECK ADD CONSTRAINT [FK_CUSTOMER_USER] FOREIGN KEY([NIC])
REFERENCES [dbo].[USER] ([NIC])
GO
ALTER TABLE [dbo].[CUSTOMER] CHECK CONSTRAINT [FK_CUSTOMER_USER]
GO

```

Connected: (1/1)    localhost (15.0 RTM) | RASARA\THIS PC (61) | DBComplainSys | 00:00:00 | 0 rows

## COMPLAINT TABLE

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'DBComplainSys'. The central pane displays the T-SQL script for creating the 'COMPLAIN' table:

```
USE [DBComplainSys]
GO

***** Object: Table [dbo].[COMPLAIN] Script Date: 1/18/2021 3:44:09 AM *****
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[COMPLAIN](
    [Complaint_Id] [int] NOT NULL,
    [Employee_Id] [int] NOT NULL,
    [Customer_Id] [int] NOT NULL,
    [Type] [varchar](255) NOT NULL,
    [Date] [date] NOT NULL,
    [Details] [varchar](255) NOT NULL,
    CONSTRAINT [PK_COMPLAIN] PRIMARY KEY CLUSTERED
    (
        [Complaint_Id] ASC
    )WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
)
GO

ALTER TABLE [dbo].[COMPLAIN] WITH NOCHECK ADD CONSTRAINT [FK_COMPLAIN_CUSTOMER] FOREIGN KEY([Customer_Id])
REFERENCES [dbo].[CUSTOMER] ([Customer_Id])
GO

ALTER TABLE [dbo].[COMPLAIN] CHECK CONSTRAINT [FK_COMPLAIN_CUSTOMER]
GO

ALTER TABLE [dbo].[COMPLAIN] WITH NOCHECK ADD CONSTRAINT [FK_COMPLAIN_EMPLOYEE] FOREIGN KEY([Employee_ID])
REFERENCES [dbo].[EMPLOYEE] ([Employee_ID])
GO

ALTER TABLE [dbo].[COMPLAIN] CHECK CONSTRAINT [FK_COMPLAIN_EMPLOYEE]
GO
```

The status bar at the bottom indicates 'Connected (1/1)', 'localhost (15.0 RTM) | RASARA|THIS PC (56) | DBComplainSys | 00:00:00 | 0 rows', and the system tray shows network and battery status.

## ACTION TABLE

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'DBComplainSys'. The central pane displays the T-SQL script for creating the 'ACTION' table:

```
USE [DBComplainSys]
GO

***** Object: Table [dbo].[ACTION] Script Date: 1/18/2021 3:40:08 AM *****
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[ACTION](
    [Action_Id] [int] NOT NULL,
    [Complaint_Id] [int] NOT NULL,
    [Employee_Id] [int] NOT NULL,
    [Details_Action] [varchar](255) NOT NULL,
    [Date_Action] [date] NOT NULL,
    CONSTRAINT [PK_ACTION] PRIMARY KEY CLUSTERED
    (
        [Action_Id] ASC
    )WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
)
GO

ALTER TABLE [dbo].[ACTION] WITH CHECK ADD CONSTRAINT [FK_ACTION_COMPLAIN] FOREIGN KEY([Complaint_Id])
REFERENCES [dbo].[COMPLAIN] ([Complaint_Id])
GO

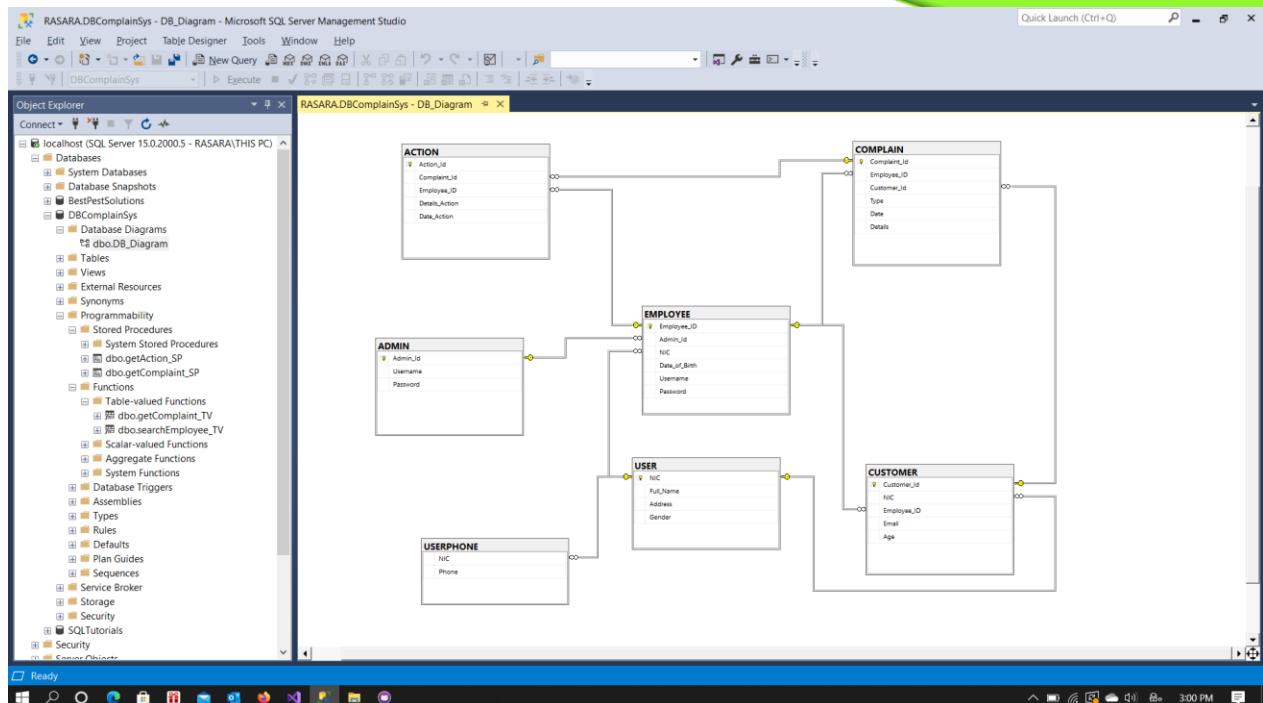
ALTER TABLE [dbo].[ACTION] CHECK CONSTRAINT [FK_ACTION_COMPLAIN]
GO

ALTER TABLE [dbo].[ACTION] WITH NOCHECK ADD CONSTRAINT [FK_ACTION_EMPLOYEE] FOREIGN KEY([Employee_ID])
REFERENCES [dbo].[EMPLOYEE] ([Employee_ID])
GO

ALTER TABLE [dbo].[ACTION] CHECK CONSTRAINT [FK_ACTION_EMPLOYEE]
GO
```

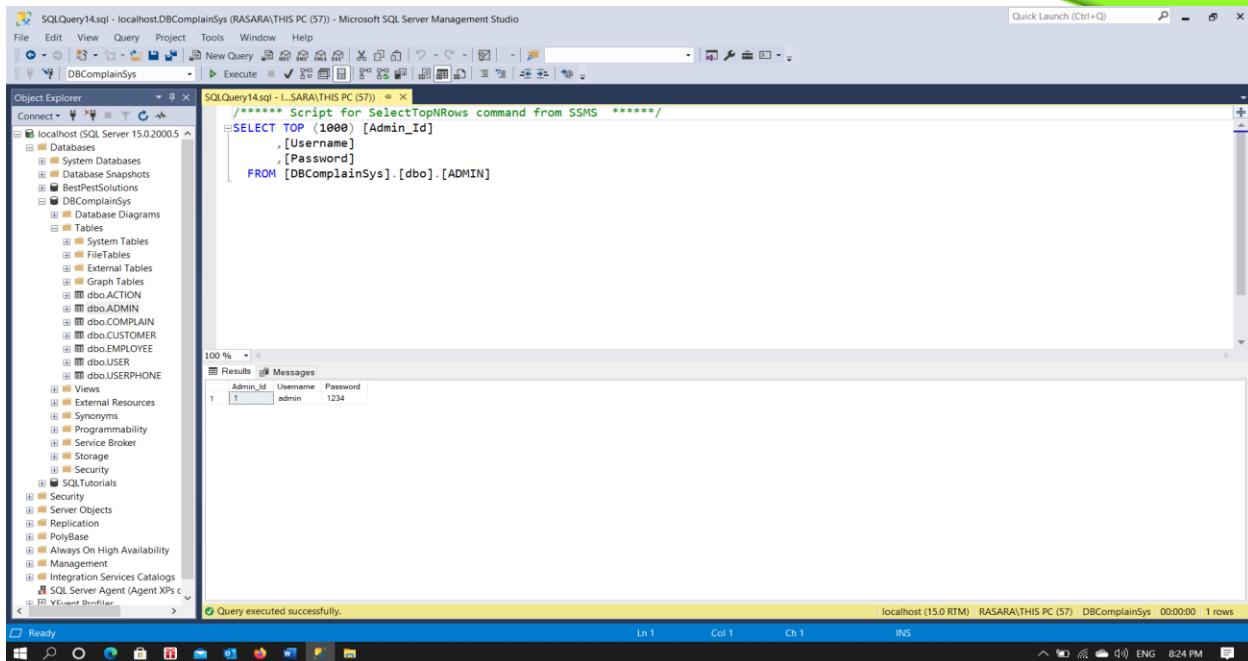
The status bar at the bottom indicates 'Connected (1/1)', 'localhost (15.0 RTM) | RASARA|THIS PC (58) | DBComplainSys | 00:00:00 | 0 rows', and the system tray shows network and battery status.

# Database Diagram



# Screen shots showing all the tables in the application with some meaningful sample records

## ADMIN TABLE



The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The Object Explorer on the left shows the database structure, including the DBComplainSys database and its tables such as ADMIN, CUSTOMER, EMPLOYEE, and USER. The central pane displays a T-SQL query:

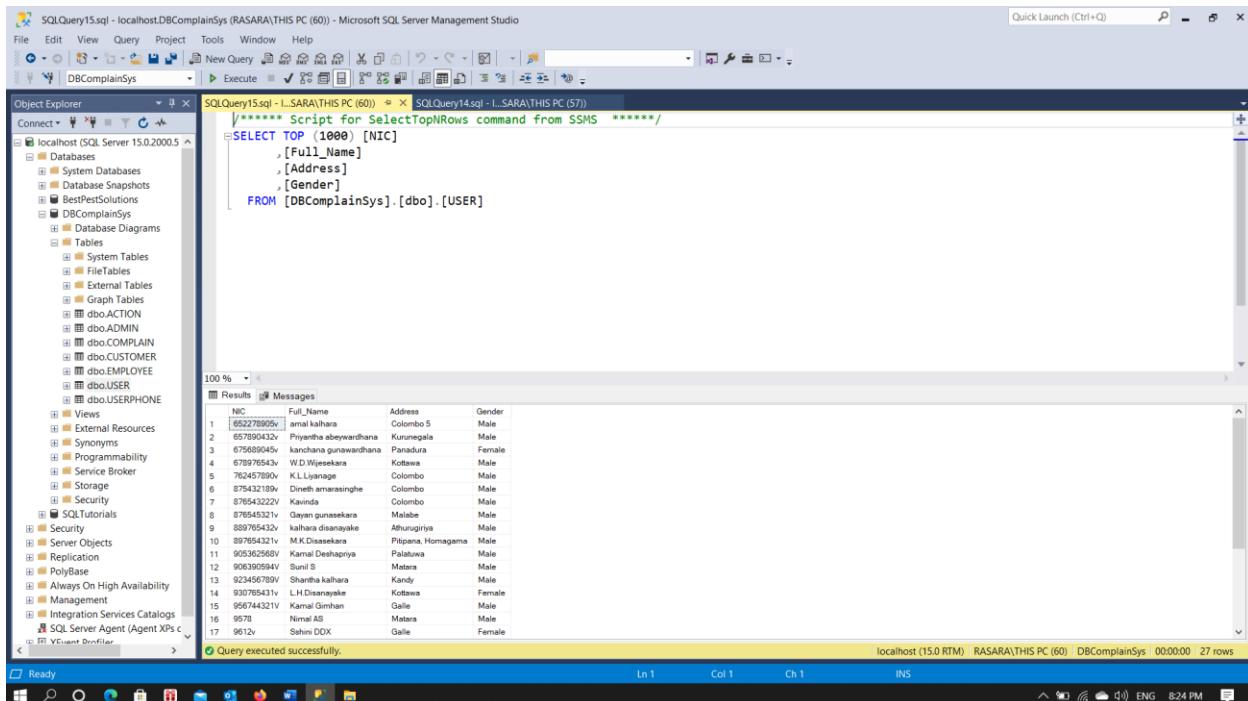
```
===== Script for SelectTopNRows command from SSMS =====
SELECT TOP (1000) [Admin_Id]
      ,[Username]
      ,[Password]
  FROM [DBComplainSys].[dbo].[ADMIN]
```

The results pane shows one row of data:

| Admin_Id | Username | Password |
|----------|----------|----------|
| 1        | admin    | 1234     |

A status bar at the bottom indicates "Query executed successfully." and provides connection information.

## USER TABLE



The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The Object Explorer on the left shows the database structure, including the DBComplainSys database and its tables such as ADMIN, CUSTOMER, EMPLOYEE, and USER. The central pane displays a T-SQL query:

```
===== Script for SelectTopNRows command from SSMS =====
SELECT TOP (1000) [NIC]
      ,[Full_Name]
      ,[Address]
      ,[Gender]
  FROM [DBComplainSys].[dbo].[USER]
```

The results pane shows 27 rows of data:

| NIC           | Full_Name              | Address            | Gender |
|---------------|------------------------|--------------------|--------|
| 1 652278905v  | amal kahara            | Colombo 5          | Male   |
| 2 65790432v   | Priyintha abeywardhana | Kurunegala         | Male   |
| 3 67569043v   | kanchana gunawardhana  | Paradura           | Female |
| 4 67976904v   | W.D.Wijesekara         | Kotawa             | Male   |
| 5 70245790v   | K.L.Ujawage            | Colombo            | Male   |
| 6 87642312v   | Dinesh prasangirige    | Colombo            | Male   |
| 7 87643222v   | Kavinda                | Colombo            | Male   |
| 8 87645321v   | Gayan gunasekara       | Malebe             | Male   |
| 9 889765432v  | kahara disanayake      | Athurugiriya       | Male   |
| 10 89765432v  | M.K.Dissanayake        | Piliyama, Horagama | Male   |
| 11 905026258v | Kamal Deshpriya        | Palatunga          | Male   |
| 12 906390594v | Suni S                 | Matara             | Male   |
| 13 923456789v | Shardha kahara         | Kandy              | Male   |
| 14 930765431v | L.H.Dissanayake        | Kotawa             | Female |
| 15 956744321v | Kamal Gimhan           | Galle              | Male   |
| 16 9578       | Nimal AB               | Matara             | Male   |
| 17 9612v      | Sethra DOX             | Galle              | Female |

A status bar at the bottom indicates "Query executed successfully." and provides connection information.

## USERPHONE TABLE

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the DBComplainSys database which contains tables like ACTION, ADMIN, COMPLAIN, CUSTOMER, EMPLOYEE, USER, and USERPHONE. The central pane displays a query window with the following script:

```

***** Script for SelectTopNRows command from SSMS *****/
SELECT TOP (1000) [NIC]
      ,[Phone]
  FROM [DBComplainSys].[dbo].[USERPHONE]
  
```

The results pane shows 27 rows of data from the USERPHONE table, with columns NIC and Phone. The data includes various phone numbers such as 712458695, 796713255, 798645321, etc.

At the bottom, a message bar indicates "Query executed successfully." and the status bar shows "localhost (15.0 RTM) | RASARA\THIS PC (56) | DBComplainSys | 00:00:00 | 27 rows".

## CUSTOMER TABLE

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the DBComplainSys database which contains tables like ACTION, ADMIN, COMPLAIN, CUSTOMER, EMPLOYEE, USER, and USERPHONE. The central pane displays a query window with the following script:

```

***** Script for SelectTopNRows command from SSMS *****/
SELECT TOP (1000) [Customer_Id]
      ,[NIC]
      ,[Employee_ID]
      ,[Email]
      ,[Age]
  FROM [DBComplainSys].[dbo].[CUSTOMER]
  
```

The results pane shows 10 rows of data from the CUSTOMER table, with columns Customer\_Id, NIC, Employee\_ID, Email, and Age. The data includes various email addresses and ages such as 54, 45, 35, 32, 22, 31, 21, 26, 27, and 45.

At the bottom, a message bar indicates "Query executed successfully." and the status bar shows "localhost (15.0 RTM) | RASARA\THIS PC (64) | DBComplainSys | 00:00:00 | 10 rows".

## EMPLOYEE TABLE

SQLQuery17.sql - localhost\DBComplainSys (RASARA\THIS PC (54)) - Microsoft SQL Server Management Studio

```
SELECT TOP (1000) [Employee_ID]
      ,[Admin_Id]
      ,[NIC]
      ,[Date_of_Birth]
      ,[Username]
      ,[Password]
   FROM [DBComplainSys].[dbo].[EMPLOYEE]
```

Results

|    | Employee_ID | Admin_Id | NIC        | Date_of_Birth | Username | Password |
|----|-------------|----------|------------|---------------|----------|----------|
| 1  | 1           | 1        | 906390594V | 1993-06-25    | sunil    | p1234    |
| 2  | 2           | 1        | 956744321V | 1995-06-13    | kamal    | 2345     |
| 3  | 3           | 1        | 978656341V | 1997-07-06    | sachini  | 3456     |
| 4  | 4           | 1        | 923456789V | 1993-12-23    | sharath  | k567     |
| 5  | 5           | 1        | 995555555V | 1995-01-01    | vishnu   | a878     |
| 6  | 6           | 1        | 897684368V | 1998-07-31    | anusha   | 6789     |
| 7  | 7           | 1        | 875421189V | 1997-01-15    | gireeth  | 7890     |
| 8  | 8           | 1        | 876880484V | 1987-10-31    | kanchna  | 9897     |
| 9  | 9           | 1        | 876543212V | 1987-09-23    | pavan    | pa13     |
| 10 | 10          | 1        | 657890432V | 1965-07-27    | priyanka | pr78     |

Query executed successfully.

## COMPLAIN TABLE

SQLQuery19.sql - localhost\DBComplainSys (RASARA\THIS PC (59)) - Microsoft SQL Server Management Studio

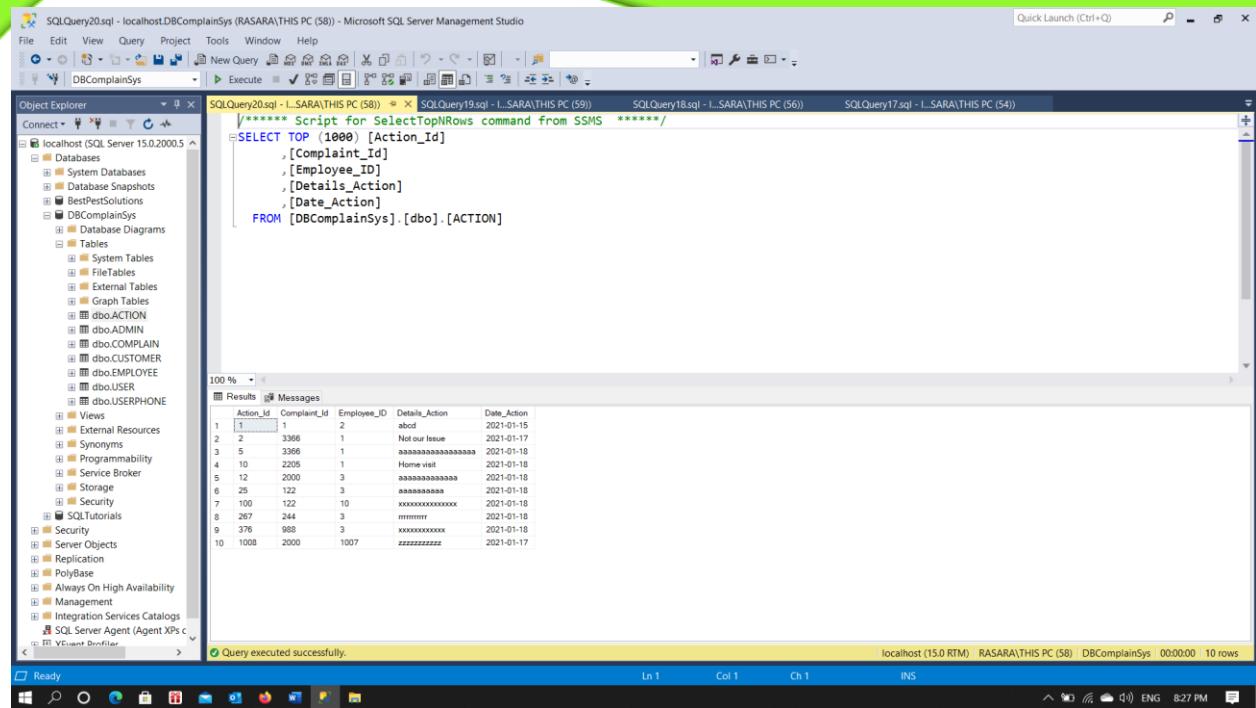
```
SELECT TOP (1000) [Complaint_Id]
      ,[Employee_ID]
      ,[Customer_Id]
      ,[Type]
      ,[Date]
      ,[Details]
   FROM [DBComplainSys].[dbo].[COMPLAIN]
```

Results

|    | Complaint_Id | Employee_ID | Customer_Id | Type      | Date       | Details              |
|----|--------------|-------------|-------------|-----------|------------|----------------------|
| 1  | 1            | 2           | 1           | Emergency | 2021-01-10 | XXXXXXXXXXXXXX       |
| 2  | 2            | 3           | 2           | Warranty  | 2021-01-19 | YYYYYY               |
| 3  | 3            | 10          | 1002        | Warranty  | 2021-01-18 | XXXXXXXXXXXXXX       |
| 4  | 10           | 3           | 1010        | Normal    | 2021-01-18 | XXXXXXXXXXXXXX       |
| 5  | 122          | 10          | 1005        | Normal    | 2021-01-03 | XXXXXXXXXXXXXX       |
| 6  | 244          | 3           | 1078        | Emergency | 2021-01-18 | XXXXXXXXXXXXXX       |
| 7  | 88           | 3           | 245         | Emergency | 2021-01-18 | XXXXXXXXXXXXXX       |
| 8  | 1008         | 6           | 1862        | Normal    | 2021-01-18 | XXXXXXXXXXXXXX       |
| 9  | 1022         | 3           | 1           | Emergency | 2021-01-18 | XXXXXXXXXXXXXX       |
| 10 | 2000         | 1007        | 2000        | Emergency | 2021-01-17 | gfghgkjkjkljd        |
| 11 | 2205         | 1           | 2205        | Emergency | 2021-01-18 | Solution leaked      |
| 12 | 3366         | 1           | 1001        | Emergency | 2021-01-17 | Product Not received |

Query executed successfully.

## ACTION TABLE



The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The Object Explorer on the left shows the database structure, including the DBComplainSys database which contains tables like ACTION, ADMIN, COMPLAIN, CUSTOMER, EMPLOYEE, and USER. The central pane displays a T-SQL script for selecting top 1000 rows from the ACTION table, followed by the resulting data in a grid format.

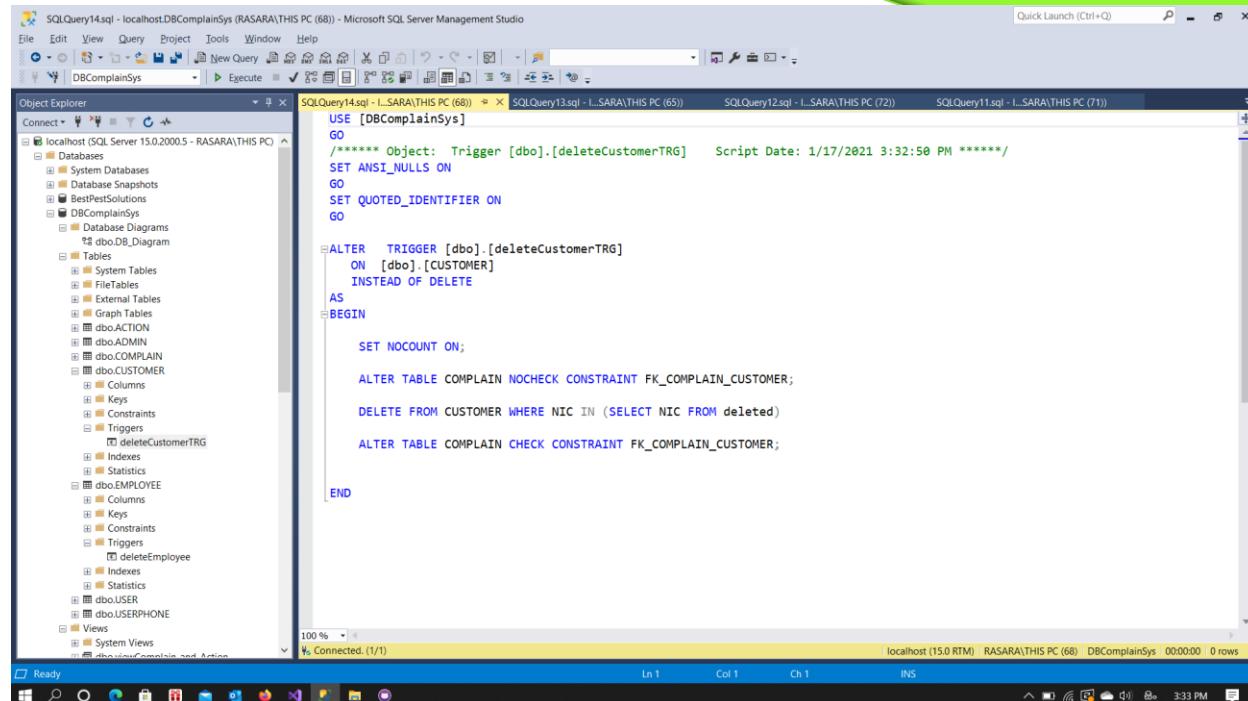
```
===== Script for SelectTopNRows command from SSMS =====
SELECT TOP (1000) [Action_Id]
,[Complaint_Id]
,[Employee_ID]
,[Details_Action]
,[Date_Action]
FROM [DBComplainSys].[dbo].[ACTION]
```

| Action_Id | Complaint_Id | Employee_ID | Details_Action | Date_Action    |
|-----------|--------------|-------------|----------------|----------------|
| 1         | 1            | 2           | abcd           | 2021-01-15     |
| 2         | 2            | 3366        | 1              | Not our issue  |
| 3         | 5            | 3366        | 1              | aaaaaaaaaaaaaa |
| 4         | 10           | 2205        | 1              | Home visit     |
| 5         | 12           | 2000        | 3              | aaaaaaaaaaaa   |
| 6         | 25           | 32          | 3              | aaaaaaaaaaaa   |
| 7         | 100          | 122         | 10             | xxxxxxxxxxxx   |
| 8         | 267          | 244         | 3              | mmmmmm         |
| 9         | 376          | 989         | 3              | xxxxxxxxxx     |
| 10        | 1008         | 2000        | 1007           | zzzzzzzzzz     |

Query executed successfully.

# Trigger statements

## deleteCustomerTRG



```
USE [DBComplainSys]
GO
/****** Object: Trigger [dbo].[deleteCustomerTRG] Script Date: 1/17/2021 3:32:50 PM *****/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO

ALTER TRIGGER [dbo].[deleteCustomerTRG]
ON [dbo].[CUSTOMER]
INSTEAD OF DELETE
AS
BEGIN

    SET NOCOUNT ON;

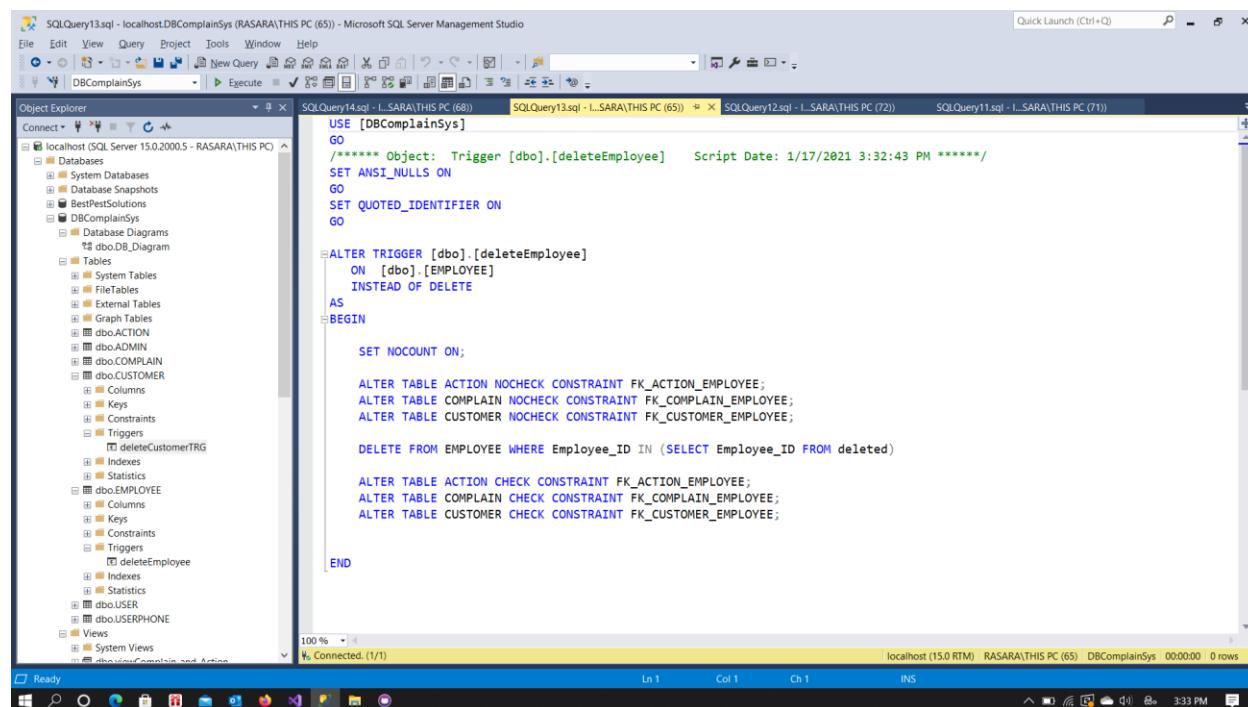
    ALTER TABLE COMPLAIN NOCHECK CONSTRAINT FK_COMPLAIN_CUSTOMER;

    DELETE FROM CUSTOMER WHERE NIC IN (SELECT NIC FROM deleted)

    ALTER TABLE COMPLAIN CHECK CONSTRAINT FK_COMPLAIN_CUSTOMER;

END
```

## deleteEmployee



```
USE [DBComplainSys]
GO
/****** Object: Trigger [dbo].[deleteEmployee] Script Date: 1/17/2021 3:32:43 PM *****/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO

ALTER TRIGGER [dbo].[deleteEmployee]
ON [dbo].[EMPLOYEE]
INSTEAD OF DELETE
AS
BEGIN

    SET NOCOUNT ON;

    ALTER TABLE ACTION NOCHECK CONSTRAINT FK_ACTION_EMPLOYEE;
    ALTER TABLE COMPLAIN NOCHECK CONSTRAINT FK_COMPLAIN_EMPLOYEE;
    ALTER TABLE CUSTOMER NOCHECK CONSTRAINT FK_CUSTOMER_EMPLOYEE;

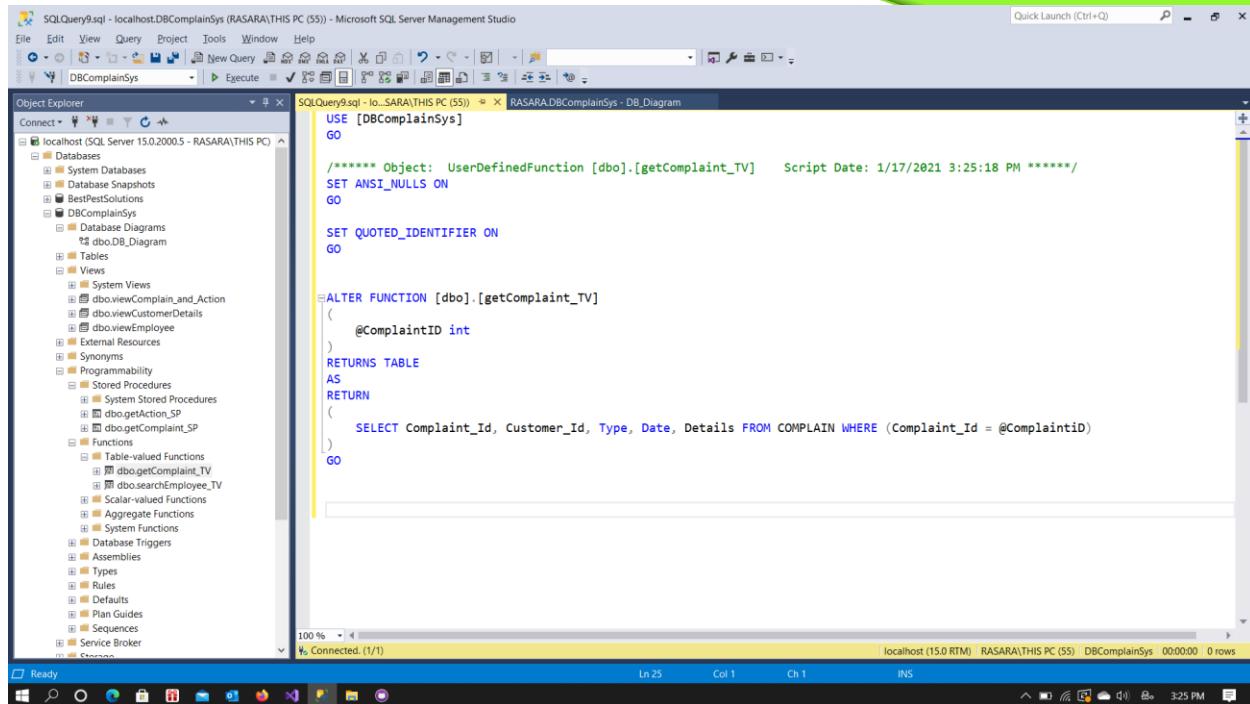
    DELETE FROM EMPLOYEE WHERE Employee_ID IN (SELECT Employee_ID FROM deleted)

    ALTER TABLE ACTION CHECK CONSTRAINT FK_ACTION_EMPLOYEE;
    ALTER TABLE COMPLAIN CHECK CONSTRAINT FK_COMPLAIN_EMPLOYEE;
    ALTER TABLE CUSTOMER CHECK CONSTRAINT FK_CUSTOMER_EMPLOYEE;

END
```

# Function statements

## getComplaint\_TV



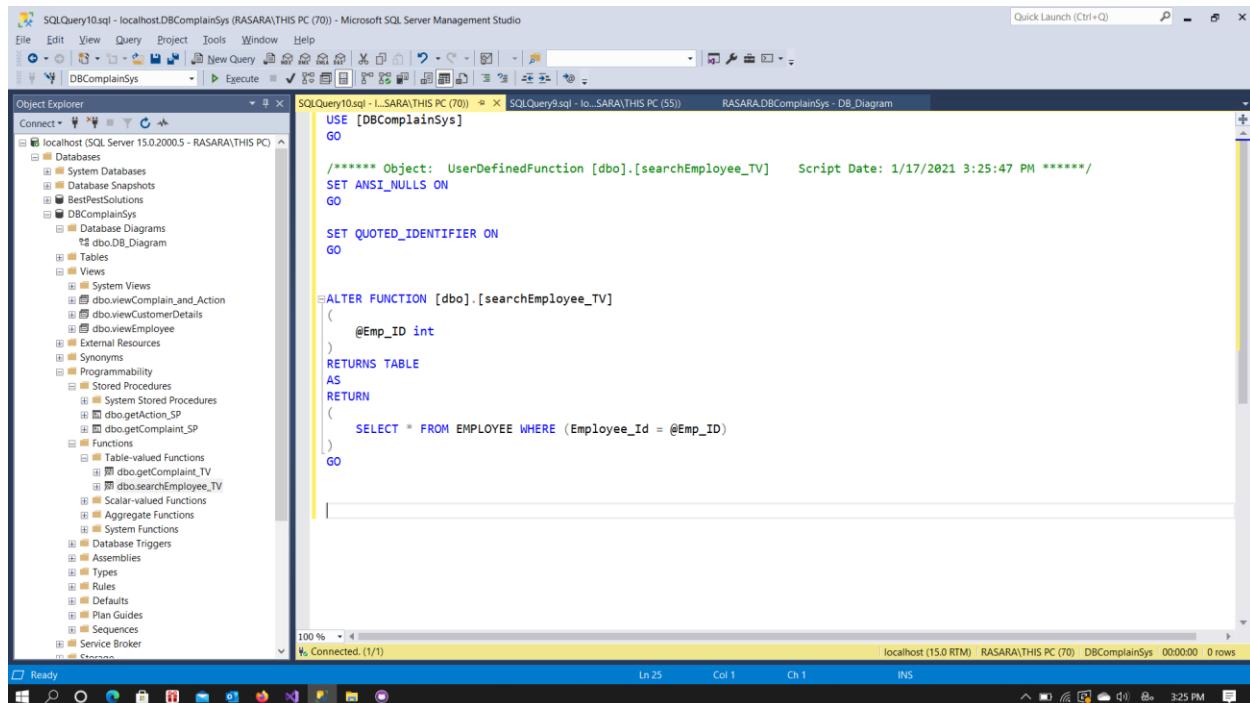
```
USE [DBComplainSys]
GO

/****** Object: UserDefinedFunction [dbo].[getComplaint_TV] Script Date: 1/17/2021 3:25:18 PM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

ALTER FUNCTION [dbo].[getComplaint_TV]
(
    @ComplaintID int
)
RETURNS TABLE
AS
RETURN
(
    SELECT Complaint_Id, Customer_Id, Type, Date, Details FROM COMPLAIN WHERE (Complaint_Id = @ComplaintID)
)
GO
```

## searchEmployee\_TV



```
USE [DBComplainSys]
GO

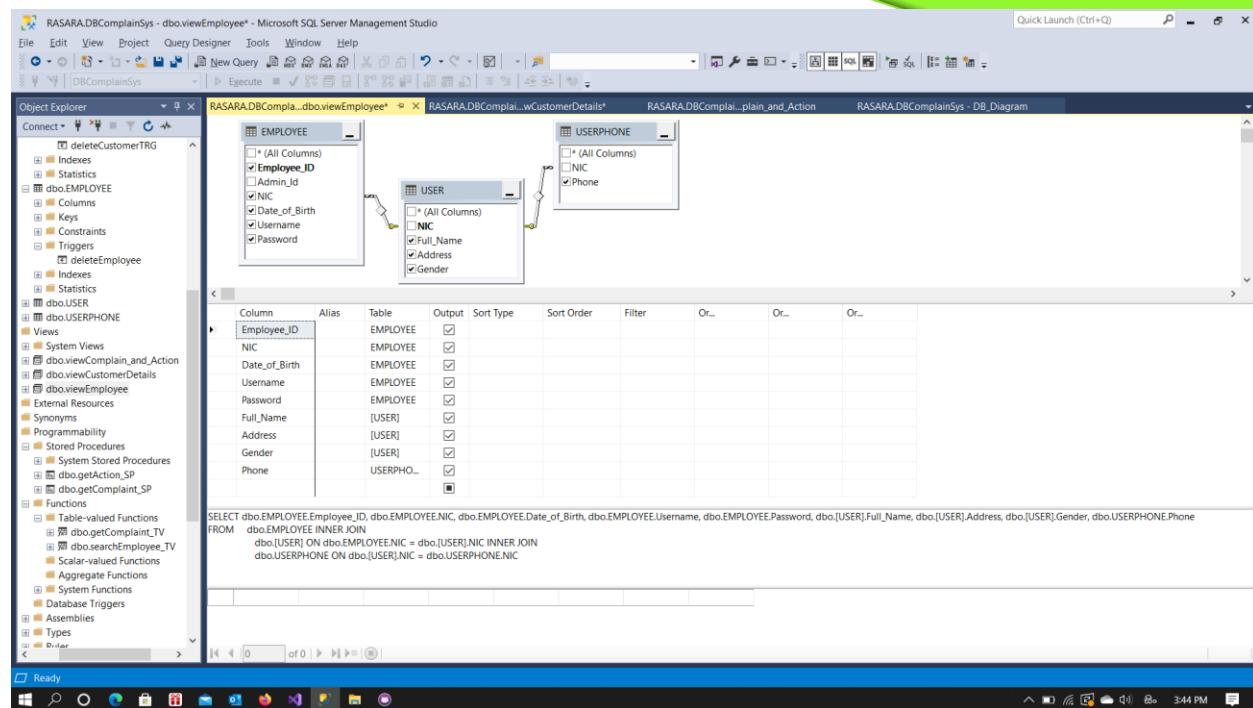
/****** Object: UserDefinedFunction [dbo].[searchEmployee_TV] Script Date: 1/17/2021 3:25:47 PM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

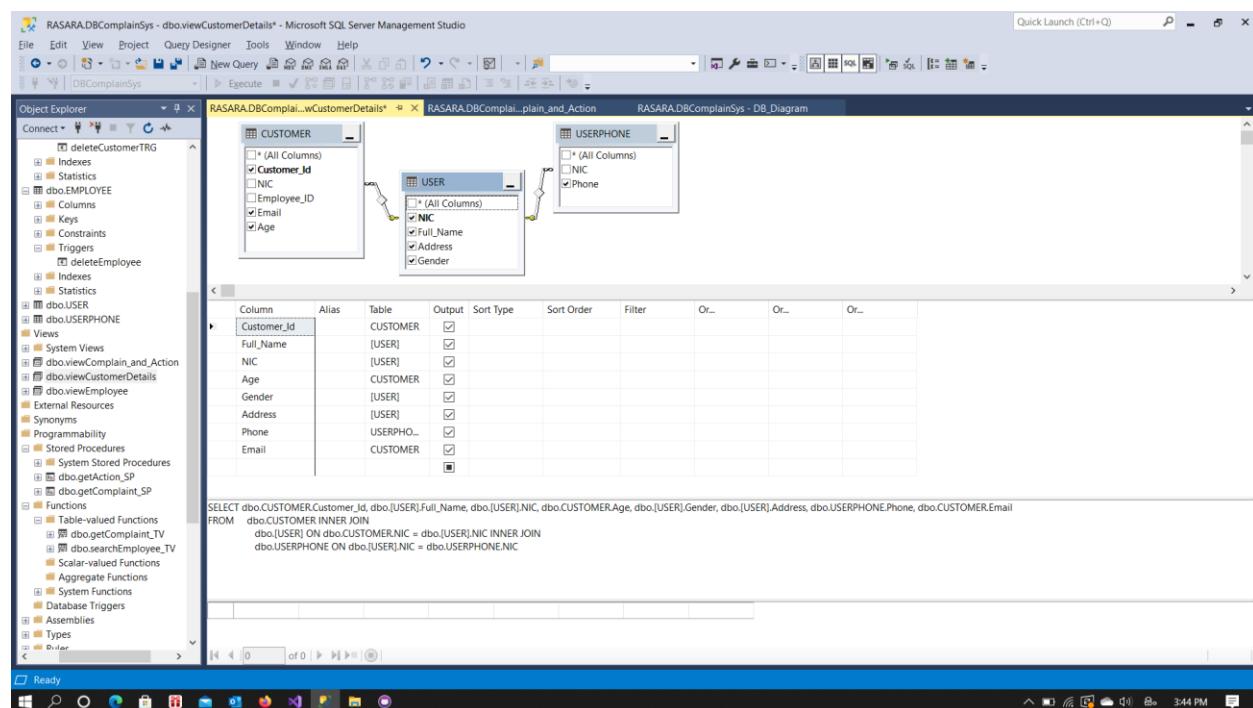
ALTER FUNCTION [dbo].[searchEmployee_TV]
(
    @Emp_ID int
)
RETURNS TABLE
AS
RETURN
(
    SELECT * FROM EMPLOYEE WHERE (Employee_Id = @Emp_ID)
)
GO
```

# View statements

## ViewEmployee



## viewCustomerDetails



## viewComplain\_and\_Action

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'DBComplainSys' is selected. In the center pane, two tables are shown: 'COMPLAIN' and 'ACTION'. A relationship is being established between them, indicated by a line connecting 'Customer\_Id' in 'COMPLAIN' to 'Employee\_Id' in 'ACTION'. Below the tables, a mapping grid shows the columns being selected for the view:

| Column       | Alias | Table    | Output                              | Sort Type | Sort Order | Filter | Or... | Or... | Or... |
|--------------|-------|----------|-------------------------------------|-----------|------------|--------|-------|-------|-------|
| Complaint_Id |       | COMPLAIN | <input checked="" type="checkbox"/> |           |            |        |       |       |       |
| Customer_Id  |       | COMPLAIN | <input checked="" type="checkbox"/> |           |            |        |       |       |       |
| Type         |       | COMPLAIN | <input checked="" type="checkbox"/> |           |            |        |       |       |       |
| Details      |       | COMPLAIN | <input checked="" type="checkbox"/> |           |            |        |       |       |       |
| Date         |       | COMPLAIN | <input checked="" type="checkbox"/> |           |            |        |       |       |       |

The T-SQL code for the view is displayed in the bottom pane:

```
SELECT dbo.COMPLAIN.Complaint_Id, dbo.COMPLAIN.Customer_Id, dbo.COMPLAIN.Type, dbo.COMPLAIN.Details, dbo.COMPLAIN.Date, dbo.ACTION.Action_Id, dbo.ACTION.Details_Action, dbo.ACTION.Date_Action
FROM dbo.COMPLAIN INNER JOIN
dbo.ACTION ON dbo.COMPLAIN.Complaint_Id = dbo.ACTION.Complaint_Id
```

## Procedure statements

### getComplaint\_SP

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'DBComplainSys' is selected. In the center pane, the script for a stored procedure 'getComplaint\_SP' is being written:

```
USE [DBComplainSys]
GO

/*
***** Object: StoredProcedure [dbo].[getComplaint_SP]   Script Date: 1/17/2021 3:27:05 PM *****/
SET ANSI_NULLS ON
GO

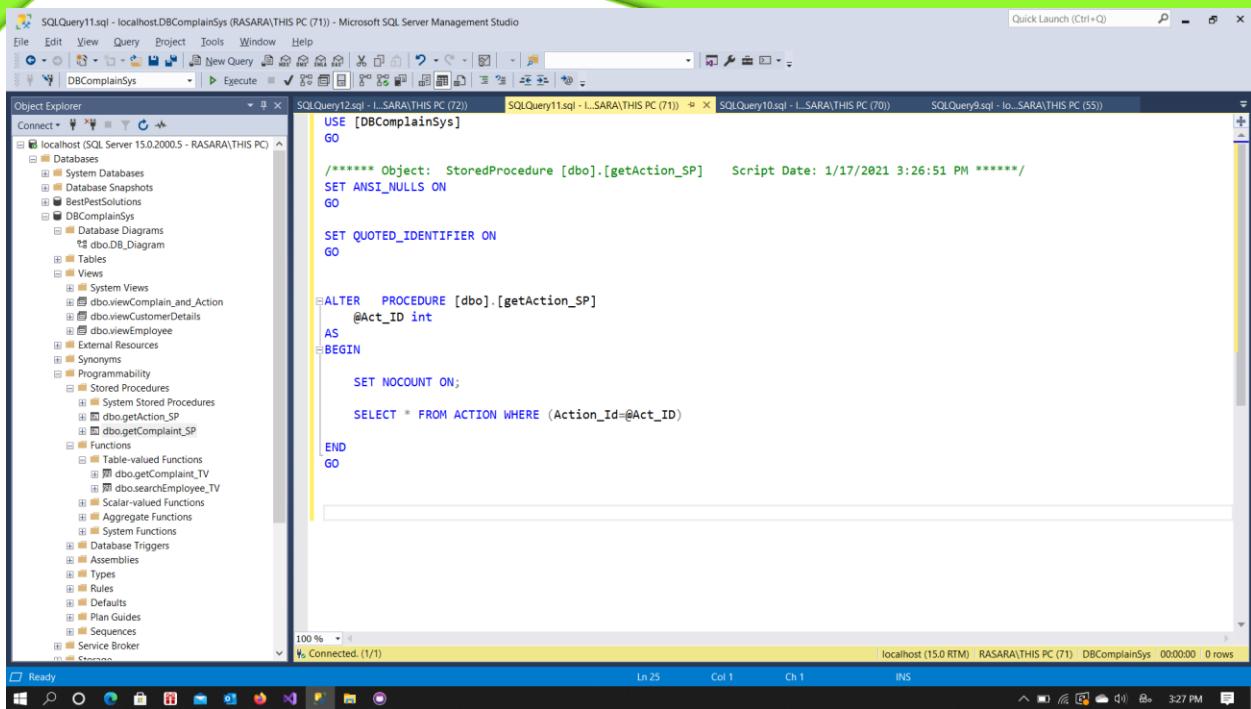
SET QUOTED_IDENTIFIER ON
GO

ALTER PROCEDURE [dbo].[getComplaint_SP]
@Type varchar(255)
AS
BEGIN

    SET NOCOUNT ON;
    SELECT Complaint_Id, Customer_Id, Type, Date, Details FROM COMPLAIN WHERE (Type=@Type)

END
GO
```

## getAction\_SP



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists the database structure for 'localhost (SQL Server 15.0.2000.5 - RASARA|THIS PC (71))'. The central pane displays the T-SQL code for the stored procedure [dbo].[getAction\_SP]. The code includes comments indicating it is a stored procedure for action selection, setting ANSI\_NULLS and QUOTED\_IDENTIFIER, defining parameters (@Act\_ID int), and performing a SELECT operation from the ACTION table where Action\_Id equals @Act\_ID. The status bar at the bottom shows the connection details: 'Connected (1/1)', 'localhost (15.0 RTM) - RASARA|THIS PC (71) - DBComplainSys', and '00:00:00 0 rows'.

```
USE [DBComplainSys]
GO

SET QUOTED_IDENTIFIER ON
GO

ALTER PROCEDURE [dbo].[getAction_SP]
@Act_ID int
AS
BEGIN

    SET NOCOUNT ON;

    SELECT * FROM ACTION WHERE (Action_Id=@Act_ID)

END
GO
```

## Screenshots of the application



Add Employee

### ADD EMPLOYEE

|               |                                |          |                      |
|---------------|--------------------------------|----------|----------------------|
| Employee ID   | <input type="text"/>           | Gender   | <input type="text"/> |
| Full Name     | <input type="text"/>           | Email    | <input type="text"/> |
| NIC           | <input type="text"/>           | Mobile   | <input type="text"/> |
| Date Of Birth | <input type="text"/> 1/18/2021 | Username | <input type="text"/> |
| Address       | <input type="text"/>           | Password | <input type="text"/> |
| <b>SUBMIT</b> |                                |          |                      |

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Edit Employee

### EDIT EMPLOYEE

|               |                                  |                               |
|---------------|----------------------------------|-------------------------------|
| Search        | Employee ID <input type="text"/> | <b>Search</b>                 |
| Full Name     | <input type="text"/>             | Mobile <input type="text"/>   |
| NIC           | <input type="text"/>             | Username <input type="text"/> |
| Date Of Birth | <input type="text"/> 1/18/2021   | Password <input type="text"/> |
| Address       | <input type="text"/>             | <b>UPDATE</b>                 |
| Gender        | <input type="text"/>             | <b>DELETE</b>                 |

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View Customers

### View Customers

| Customer_Id | Full_Name        | NIC        | Age | Gender | Address            | Phone     | Email    |
|-------------|------------------|------------|-----|--------|--------------------|-----------|----------|
| 1001        | Kamal Dhehapiy   | 905362568V | 35  | Male   | Palatluwa          | 712455895 | kamal@   |
| 2205        | amal kahara      | 652278905v | 45  | Male   | Colombo 5          | 756713255 | amal45@  |
| 2000        | Kavinda          | 87654322V  | 27  | Male   | Colombo            | 723456781 | kav@g    |
| 1002        | kahara dianayake | 897654532v | 32  | Male   | Athurugriya        | 708976543 | Kahara   |
| 1005        | Chamod devinda   | 980765431v | 22  | Male   | Homagama           | 786754321 | chamod   |
| 1802        | L.H.Dianayake    | 930765431v | 25  | Female | Kottawa            | 762245221 | lhkd34@  |
| 1010        | M.K.Dissanekara  | 897654321v | 31  | Male   | Pitipana, Homag... | 786543211 | mkd76@   |
| 1078        | Kalani           | 998790981v | 21  | Female | Malabe             | 765432191 | kalani@  |
| 245         | K.L.Uyanage      | 762457850v | 45  | Male   | Colombo            | 712345671 | lyanage@ |
| 1           | W.D.Wijesekara   | 678976543v | 54  | Male   | Kottawa            | 776543219 | wje23@   |

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View Complain

### View Complain and Action

| Complaint_Id | Customer_Id | Type      | Details             | Date      | Action_Id | Details_Action    | Date_A    |
|--------------|-------------|-----------|---------------------|-----------|-----------|-------------------|-----------|
| 1            | 1           | Emergency | XXXXXXXXXXXXXX      | 1/1/2021  | 1         | abcd              | 1/15/2021 |
| 3366         | 1001        | Emergency | Product Not reci... | 1/17/2021 | 2         | Not our issue     | 1/17/2021 |
| 3366         | 1001        | Emergency | Product Not reci... | 1/17/2021 | 5         | aaaaaaaaaaaaaa... | 1/18/2021 |
| 2205         | 2205        | Emergency | Solution leaked     | 1/18/2021 | 10        | Home visit        | 1/18/2021 |
| 2000         | 2000        | Emergency | gfchgkjkjklkj       | 1/17/2021 | 12        | aaaaaaaaaaaaaa    | 1/18/2021 |
| 122          | 1005        | Normal    | xxxxxxxxxxxxxx      | 1/3/2021  | 25        | aaaaaaaaaaa       | 1/18/2021 |
| 122          | 1005        | Normal    | xxxxxxxxxxxxxx      | 1/3/2021  | 100       | xxxxxxxxxxxxxxx   | 1/18/2021 |
| 244          | 1078        | Warranty  | xxxxxxxxxxxxxx      | 1/18/2021 | 267       | mmmmrr            | 1/18/2021 |
| 988          | 245         | Emergency | zzzzzzzzzzzzzz      | 1/18/2021 | 376       | xxxxxxxxxxxxxx    | 1/18/2021 |
| 2000         | 2000        | Emergency | gfchgkjkjklkj       | 1/17/2021 | 1008      | zzzzzzzzzzzz      | 1/17/2021 |

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**Employee**

### Complaint Management System

- Add Complain**
- View Complain**
- Add Action**
- View Action**

**Exit**

**Add Complain**

**Add Complaint**

|              |                      |            |                      |
|--------------|----------------------|------------|----------------------|
| Customer ID  | <input type="text"/> | Address    | <input type="text"/> |
| Full Name    | <input type="text"/> | Email      | <input type="text"/> |
| Customer NIC | <input type="text"/> | Mobile     | <input type="text"/> |
| Age          | <input type="text"/> |            |                      |
| Gender       | <input type="text"/> | <b>ADD</b> |                      |

**Complain**

|             |                                |               |                      |
|-------------|--------------------------------|---------------|----------------------|
| Complain ID | <input type="text"/>           | Details       | <input type="text"/> |
| Type        | <input type="text"/>           |               |                      |
| Date        | <input type="text"/> 1/18/2021 | <b>SUBMIT</b> |                      |

**Back**

**View Complain**

**Search**

|             |                      |               |
|-------------|----------------------|---------------|
| Complain ID | <input type="text"/> | <b>Search</b> |
| Type        | <input type="text"/> | <b>Search</b> |

**Edit Customer**      Complain ID:       **Take Action**

**Back**

**Edit Employee**

**EDIT CUSTOMER**

**Search**

|             |                      |               |
|-------------|----------------------|---------------|
| Customer ID | <input type="text"/> | <b>Search</b> |
|-------------|----------------------|---------------|

|           |                      |               |                      |
|-----------|----------------------|---------------|----------------------|
| Full Name | <input type="text"/> | Address       | <input type="text"/> |
| NIC       | <input type="text"/> | Email         | <input type="text"/> |
| Age       | <input type="text"/> | Mobile        | <input type="text"/> |
| Gender    | <input type="text"/> | <b>UPDATE</b> | <b>DELETE</b>        |

**Back**

**Add Action**

**GET ACTION**

**Action ID**

**Complaint ID**

**Date**  1/18/2021

**Details**

**ADD**

**Back**

**Form12**

**EDIT ACTION**

**Search**

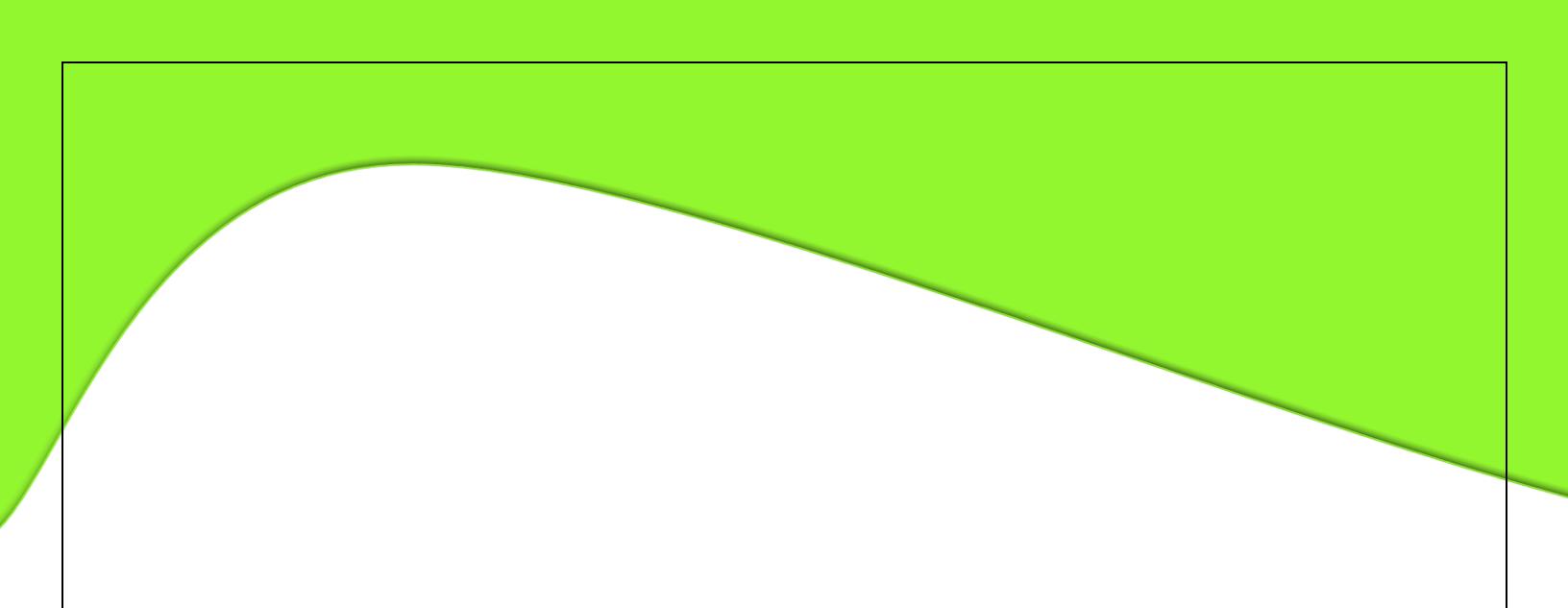
|           |                      |               |
|-----------|----------------------|---------------|
| Action ID | <input type="text"/> | <b>Search</b> |
|-----------|----------------------|---------------|

|              |                                |
|--------------|--------------------------------|
| Complaint ID | <input type="text"/>           |
| Date         | <input type="text"/> 1/18/2021 |
| Details      | <input type="text"/>           |

**UPDATE**

**DELETE**

**Back**



**-Thank You-**