REPORT

TEAM MEMBER'S INFORMATION:

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ABSTRACT:

Cities all around the world consist of a large number of people. People come across various problems relating to the basic services provided by the government and due to this they would want to lodge a complaint regarding the same.The existing system of having to wait in queues for hours to lodge a complaint is tiresome. There isn't any efficient way for citizens to keep track of all complaints and information of all department. Having a portal for the same will make it easier for citizens to keep track of the whole system and to overcome the problems faced by them in the city .

Hence it is required to create a database for a city that can be used majorly to complain about the inefficiencies of different public sectors w.r.t. water , electricity ,hygiene, health etc and obtain contact information regarding the same.

PROBLEM STATEMENT:

Whenever the citizens access the portal, they should login using their User ID.If they don't have their User ID, then they have to create their account by registering,which requires entering personal information like name, ID Proof Number,House no and other required information to get their identity verified and generate a password of their own.Citizens now can register their complaints after which they will be linked to the concerned official and the information regarding the complaint registered will be visible on their account.

The Employee can login through his Employee ID and view the customer whom he has to service and once serviced, he can clear the complaint associated with him.There is also an option to view the history of complaints an employee has serviced earlier and obtain information regarding the same.

The possible errors and constraints associated with managing complaints and seeking information by the use of handwritten records must also overcome through the design of database using oracle and the GUI using Java that accesses the database.

RELATIONAL SCHEMA:

1) Area(area_id , area_name)
2) Citizen(citizen_id ,__id_proof_number ,__citizen_name , street , house_number , password , area_id)
3) Department(department_id , department_name , landline)
4) Employee(employee_id , employee_name , gender , phone , department_id)
5) Complaint(complaint_id , date_of_complaint , description , citizen_id , department_id , employee_id)
6) Complaint_serviced(date_of_service, complaint_id , date_of_complaint , description , citizen_id , department_id , employee_id)

SAMPLE DATA:

1) Area(Ambalapadi S.O,576103)
2) Citizen(1001,609531604517,yash,kota,123,yash,576111)
3) Department(WAT1001,water,0747-2452536)
4) Employee(10001,Josephine Darakjy,M,504-621-8927,WAT1001)
5) Complaint(10001,15-Apr-2019,tap problem,1001,WAT1001,10009)

SEQUENCE GENERATION CODES:

1) create sequence seq
   start with 1000
   increment by 1
   nocache
   nocycle;

2) create sequence seq_comp
   start with 10000
   increment by 1
   nocache
   nocycle;

TRIGGERS USED:

```
create or replace trigger complaint_history
before delete on complaint
for each row
begin
insert into complaint_serviced
values(sysdate,:old.complaint_id,:old.date_of_complaint,:old.description,
:old.citizen_id,:old.department_id,:old.employee_id);
end;
/
```

LIST OF QUERIES USED:

```
ResultSet r=st.executeQuery("select password from citizen where citizen_id = '" + userId + "'");


r=st.executeQuery("select password from citizen where citizen_id = '" + userId + "'");


st.executeUpdate("insert into citizen values(seq.nextval" + ",'" + ipn + "','" + name + "','" + street + "','" + house + "','" + password + "','" + aid + "')");


ResultSet r=st.executeQuery("select citizen_id from citizen where id_proof_number = '" + ipn + "'");


ResultSet r=st.executeQuery("select area_name from area");


ResultSet r=st.executeQuery("select area_id from area where area_name = '" + s + "'");


ResultSet r=st.executeQuery("select complaint_id from complaint where complaint.citizen_id = " + "'" + userId + "'");
```

```
ResultSet r = st.executeQuery("select
department_name,landline,to_char(date_of_complaint,'DD-MM-
YYYY'),employee_name,phone,gender,description from
complaint,employee,department where employee.employee_id =
complaint.employee_id and employee.department_id = complaint.department_id
and employee.department_id = department.department_id and
department.department_id = complaint.department_id and
complaint.complaint_id = '" + comp_id + "'");
```

```
ResultSet r=st.executeQuery("select department_name from department");
```

```
ResultSet r = st.executeQuery("select department_id from department where
department_name = '" + dept_name +"'");
```

```
r = st.executeQuery("(select employee_id from employee where department_id =
'" + department_id + "') minus (select employee_id from complaint where
department_id = '" + department_id + "')");
```

```
r = st.executeQuery("(select employee_id from employee where department_id =
'" + department_id + "') minus (select employee_id from complaint where
department_id = '" + department_id + "')");
```

```
st.executeUpdate("insert into complaint values(seq_comp.nextval,SYSDATE," +
"'" + description + "','" + userId + "','" + department_id + "','" + employee_id +
"')");
```

```
ResultSet r = st.executeQuery("select * from employee where employee_id = '" +
empId + "'");
```

```
r=st.executeQuery("select complaint_id,citizen_name from complaint,citizen
where citizen.citizen_id = complaint.citizen_id and complaint.employee_id = " +
"'" + empId + "'");
```

```
r = st.executeQuery("select complaint_id from complaint where employee_id = "
+ "'" + empId + "'");
```

```
ResultSet rs = stmt.executeQuery("select complaint_id from complaint_serviced
where employee_id = " + "'" + empId + "'");


ResultSet r = st.executeQuery("select citizen_id,to_char(date_of_complaint,'DD-
MM-YYYY'),to_char(date_of_service,'DD-MM-YYYY'),description from
complaint_serviced where complaint_id = " + "'" + compId + "'");
```

CREATING TABLES:

1) create table area(
   area_name varchar(20) not null,
   area_id varchar(20) primary key);

2) create table citizen(
   citizen_id varchar(20) primary key,
   id_proof_number varchar(20) unique not null,
   citizen_name varchar(20) not null,
   street varchar(20) not null,
   house_number varchar(20) not null,
   password varchar(20) not null,
   area_id varchar(20) references area on delete cascade);

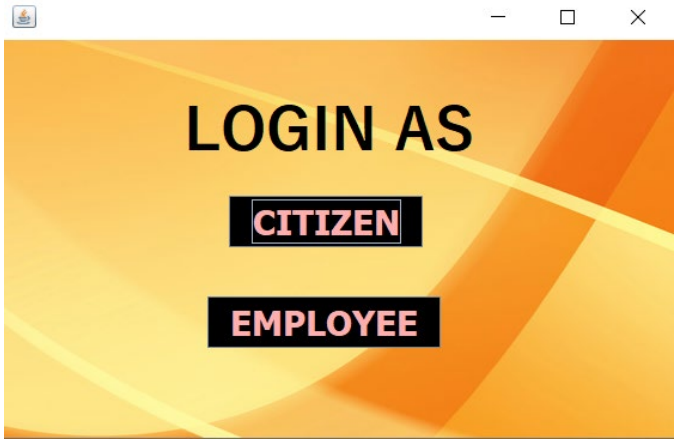
3) create table department(
   department_id varchar(20) primary key,
   department_name varchar(20) not null,
   landline varchar(12) not null);

4) create table employee(
   employee_id varchar(20) primary key,
   employee_name varchar(20) not null,
   gender char(1) not null,
   phone varchar(12) not null,
   department_id varchar(20) references department on delete cascade);

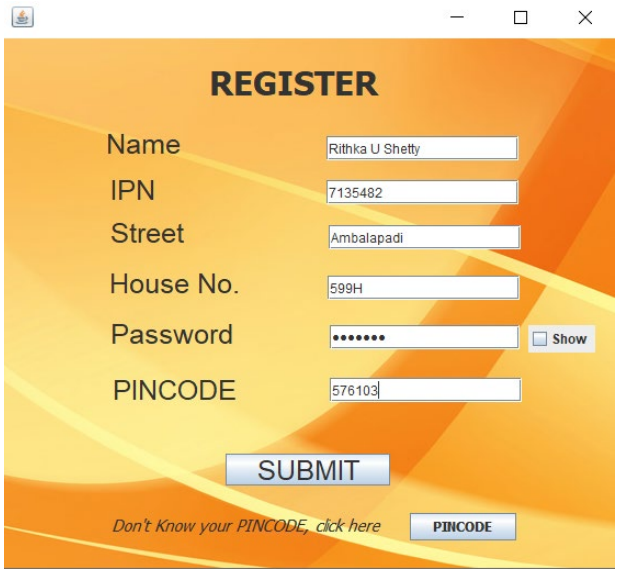
5) create table complaint(
complaint_id varchar(20) primary key,
date_of_complaint date not null,
description varchar(50),
citizen_id varchar(20) references citizen on delete cascade,
department_id varchar(20) references department on delete cascade,
employee_id varchar(20) references employee on delete cascade);

UI DESIGN:

- LOGIN AS



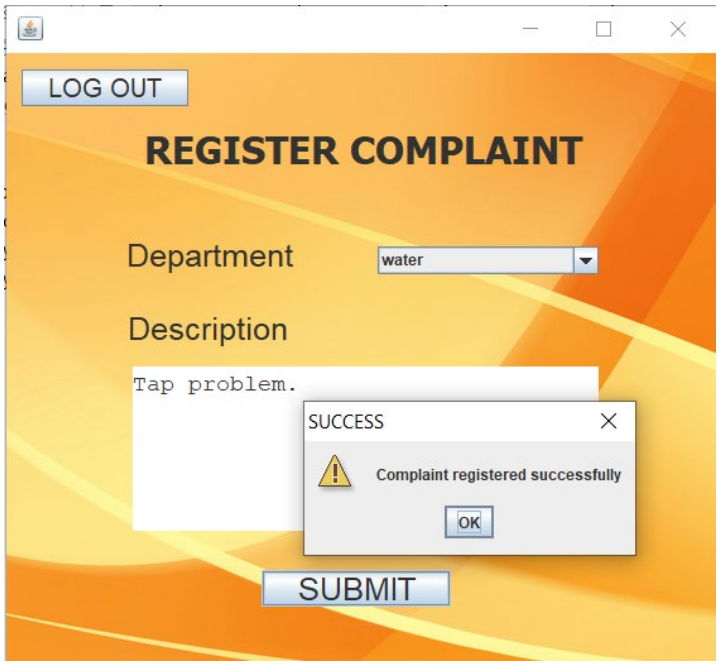
- CITIZEN REGISTER :



- REGISTRATION SUCCESSFUL :

- CITIZEN LOGIN :

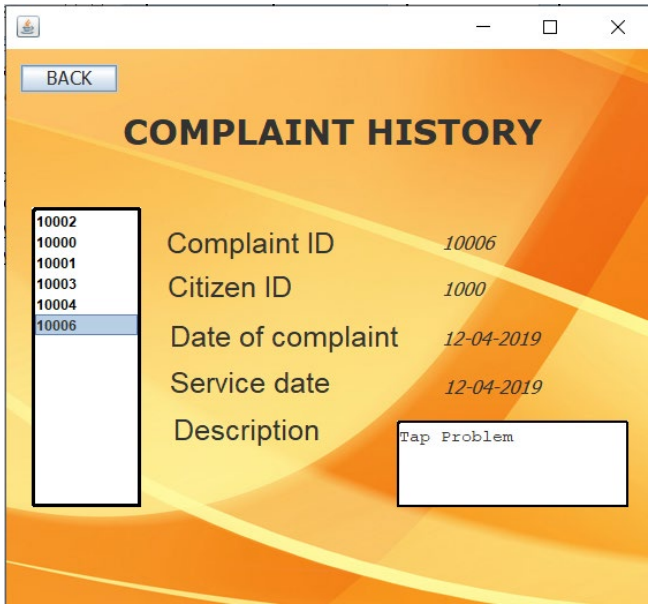
- COMPLAINT REGISTER :



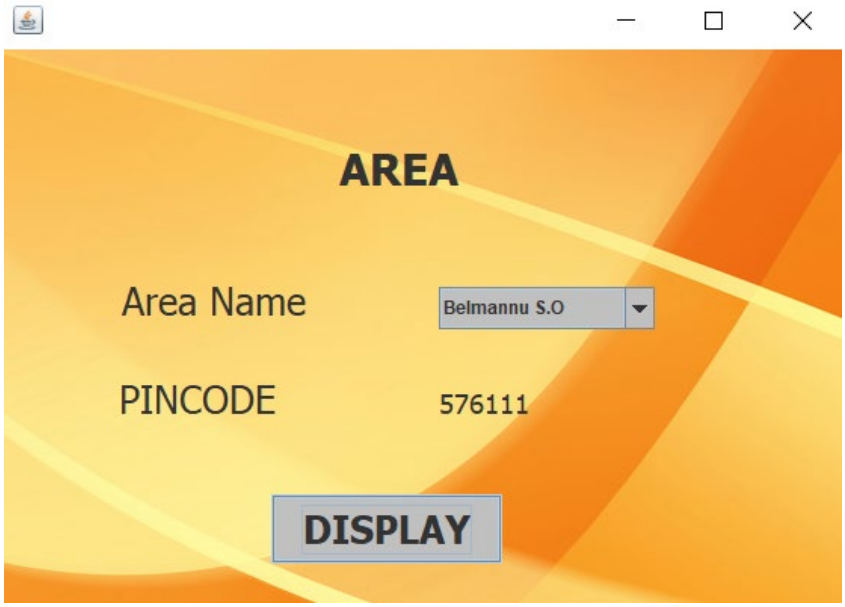
- COMPLAINT DETAILS :

- EMPLOYEE LOGIN :

- COMPLAINT HISTORY :



- AREA



PSEUDOCODE :

- Connectivity Code:

```
try {
        Class.forName("oracle.jdbc.driver.OracleDriver");

        Connection conn= DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:orcl","system","B2170905466");
        Statement st = conn.createStatement();
        conn.close();
    } catch (Exception e) {
        JOptionPane.showMessageDialog(null,"Failed to Connect to Database","Error Connection", JOptionPane.WARNING_MESSAGE);
        System.exit(0);
    }
```

REFERENCES:

- www.youtube.com
- www.wikipidia.com
- www.stackoverflow.com