**REPORT**

**TEAM MEMBER’S INFORMATION:**

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| --- | --- | --- |
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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;

1. 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;

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**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);

1. 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);

1. create table department(

department\_id varchar(20) primary key,

department\_name varchar(20) not null,

landline varchar(12) not null);

1. 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);

1. 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

A close up of a sign

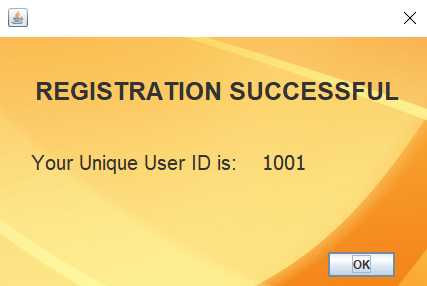
Description automatically generated

* CITIZEN REGISTER :

A screenshot of a cell phone

Description automatically generated

* REGISTRATION SUCCESSFUL :



* CITIZEN LOGIN :

A screenshot of a cell phone

Description automatically generated

* COMPLAINT REGISTER :

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Description automatically generated

* COMPLAINT DETAILS :

A screenshot of a cell phone

Description automatically generated

* EMPLOYEE LOGIN :

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Description automatically generated

* COMPLAINT HISTORY :

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Description automatically generated

* AREA

A screenshot of a cell phone

Description automatically generated

**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](http://www.youtube.com)
* [www.wikipidia.com](http://www.wikipidia.com)
* [www.stackoverflow.com](http://www.stackoverflow.com)