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SISTEMAS DE INFORMAÇÃO - 20221

GABRIEL DE SOUZA TAVARES - 287562020

**PORTFÓLIO DE DESAFIOS**

**Programação Para Dispositivo Android**

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Guarulhos

2022

GABRIEL DE SOUZA TAVARES

**PORTFÓLIO DE DESAFIOS**

**Programação Para Dispositivo Android**

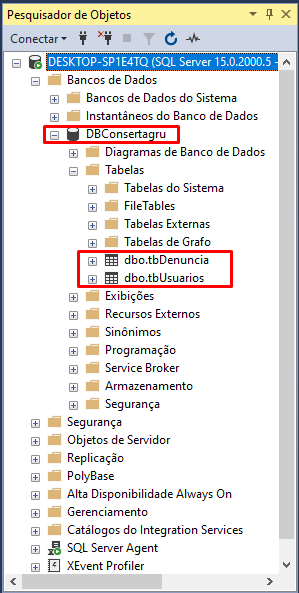
Trabalho apresentado ao Curso (Sistemas Informação) do Centro Universitário ENIAC para a disciplina Programação Para Dispositivo Android

Prof. Lucio Luzetti Criado

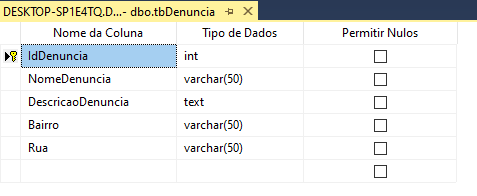
Guarulhos

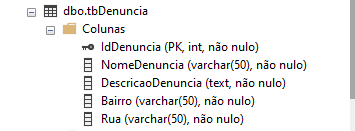
2022



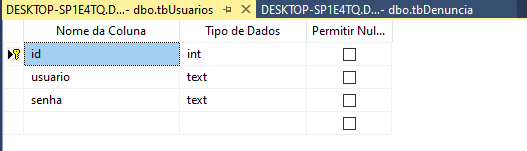
**ESTRUTURA DE BANCO DE DADOS**

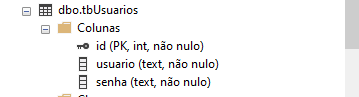
**tbDenuncia**

****

****

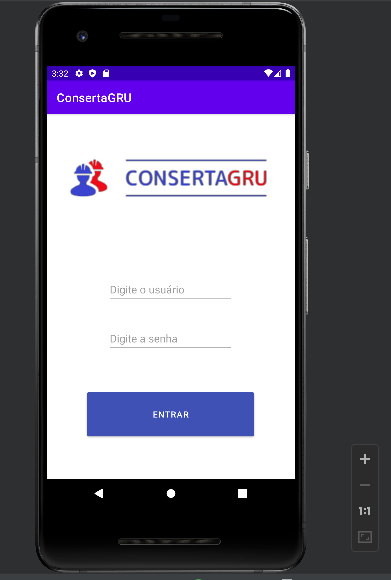
**tbUsuario**

****

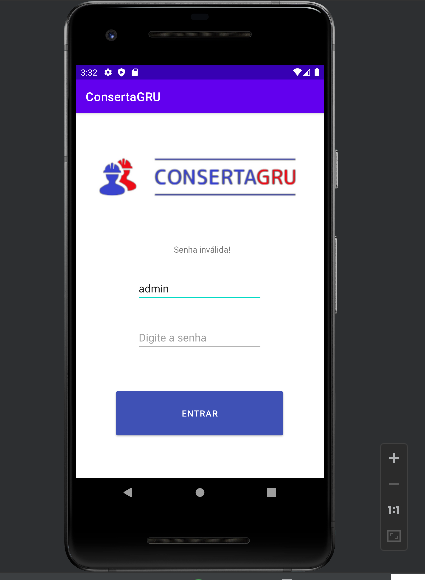


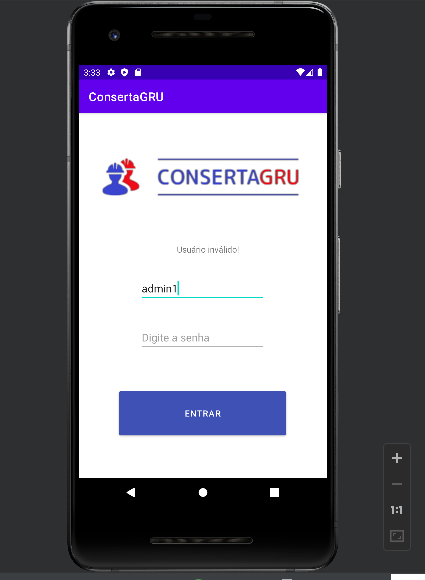
**INTERFACES DO USUÁRIO**

1. **TELA DE LOGIN:**

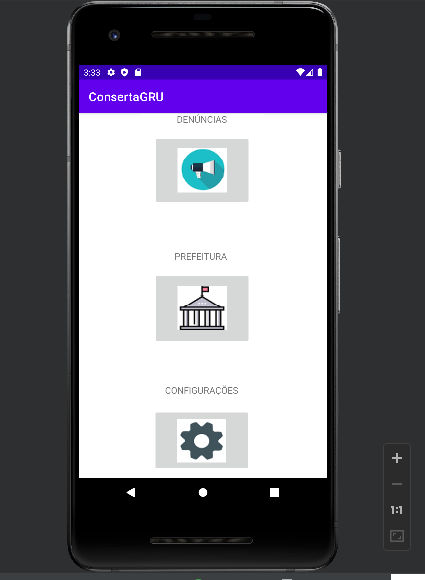


**Caso senha errada:**



**Caso usuário errado:**

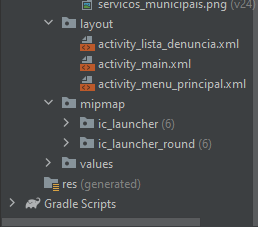
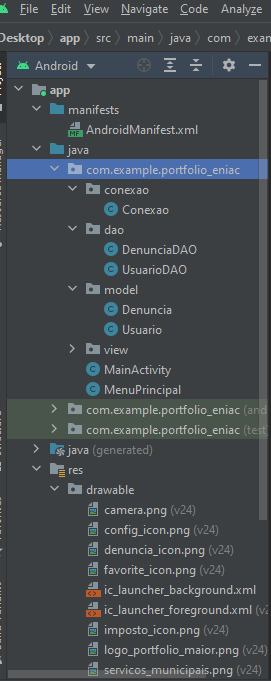
1. **TELA INICIAL (HOME - PÓS LOGIN)**



1. **TELA DENÚNCIAS – (LISTAR, PESQUISAR, CADASTRAR)**



**CÓDIGOS E CLASSES**

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**1 – Estruturas de Banco de Dados:**

**Conexao.java:**

package com.example.portfolio\_eniac.conexao;  
  
import android.os.StrictMode;  
  
import java.sql.Connection;  
import java.sql.DriverManager;  
import java.sql.SQLException;  
  
public class Conexao {  
 //politica de conexão SQL > Android  
 public static Connection conectar() throws ClassNotFoundException, SQLException {  
 Connection conn = null;  
  
 StrictMode.ThreadPolicy politica;  
 politica = new StrictMode.ThreadPolicy.Builder().permitAll().build();  
 StrictMode.*setThreadPolicy*(politica);  
  
 Class.*forName*("net.sourceforge.jtds.jdbc.Driver");  
  
 String ip = "192.168.15.9:1433";  
 String db = "DBConsertagru";  
 String user = "tavinker";  
 String senha = "1234";  
  
  
 //conexão com BD  
 String connString = "jdbc.jtds:sqlserver://"+ip+";databaseName="+db+";user="+user+";password="+senha+";";  
 conn = DriverManager.*getConnection*(connString);  
  
 return conn;  
 }  
}

**DenunciaDAO.java:**

package com.example.portfolio\_eniac.dao;  
  
import com.example.portfolio\_eniac.conexao.Conexao;  
import com.example.portfolio\_eniac.model.Denuncia;  
import com.example.portfolio\_eniac.model.Usuario;  
  
import java.sql.Connection;  
import java.sql.ResultSet;  
import java.sql.SQLException;  
import java.sql.Statement;  
import java.util.ArrayList;  
import java.util.List;  
  
public class DenunciaDAO {  
  
 public List<Denuncia> getAll(){  
 List<Denuncia> lists = new ArrayList<Denuncia>();  
 try {  
 Connection conn = Conexao.*conectar*();  
 if(conn != null){  
 String sql = "select \* from tbDenuncia";  
 Statement st = null;  
 st = conn.createStatement();  
  
 ResultSet rs = st.executeQuery(sql);  
 while(rs.next()){  
 Denuncia denun = new Denuncia();  
 denun.setId(rs.getInt(1));  
 denun.setNome(rs.getString(2));  
 denun.setDescricao(rs.getString(3));  
 denun.setBairro(rs.getString(4));  
 denun.setRua(rs.getString(5));  
  
 lists.add(denun);  
 }  
 conn.close();  
 }  
 } catch (ClassNotFoundException e) {  
 e.printStackTrace();  
 } catch (SQLException throwables) {  
 throwables.printStackTrace();  
 }  
  
 return lists;  
  
 }  
  
}

**UsuarioDAO.java:**

package com.example.portfolio\_eniac.dao;  
  
import com.example.portfolio\_eniac.conexao.Conexao;  
import com.example.portfolio\_eniac.model.Usuario;  
  
import java.sql.Connection;  
import java.sql.ResultSet;  
import java.sql.SQLException;  
import java.sql.Statement;  
  
import javax.xml.transform.Result;  
  
public class UsuarioDAO {  
  
 public Usuario selecionaUsuario(String usuario, String senha){  
 try {  
 Connection conn = Conexao.*conectar*();  
 if(conn != null){  
 String sql = "select \* from tbUsuarios where usuario = '"+usuario+"' and senha = '"+senha+"'";  
 Statement st = null;  
 st = conn.createStatement();  
  
 ResultSet rs = st.executeQuery(sql);  
 while(rs.next()){  
 Usuario usu = new Usuario();  
 usu.setId(rs.getInt(1));  
 usu.setUsuario(rs.getString(2));  
 usu.setSenha(rs.getString(3));  
  
 conn.close();  
 return usu;  
 }  
  
 }  
 } catch (ClassNotFoundException e) {  
 e.printStackTrace();  
 } catch (SQLException throwables) {  
 throwables.printStackTrace();  
 }  
  
 return null;  
  
 }  
}

**2 – Models:**

**Denuncia.java:**

package com.example.portfolio\_eniac.model;  
  
public class Denuncia {  
  
 private Integer id;  
 private String nome;  
 private String descricao;  
 private String bairro;  
 private String rua;  
  
 public Integer getId() {  
 return id;  
 }  
  
 public void setId(Integer id) {  
 this.id = id;  
 }  
  
 public String getNome() {  
 return nome;  
 }  
  
 public void setNome(String nome) {  
 this.nome = nome;  
 }  
  
 public String getDescricao() {  
 return descricao;  
 }  
  
 public void setDescricao(String descricao) {  
 this.descricao = descricao;  
 }  
  
 public String getBairro() {  
 return bairro;  
 }  
  
 public void setBairro(String bairro) {  
 this.bairro = bairro;  
 }  
  
 public String getRua() {  
 return rua;  
 }  
  
 public void setRua(String rua) {  
 this.rua = rua;  
 }  
}

**Usuario.java:**

package com.example.portfolio\_eniac.model;  
  
public class Usuario {  
  
 private Integer id;  
 private String usuario;  
 private String senha;  
  
 public Integer getId() {  
 return id;  
 }  
  
 public void setId(Integer id) {  
 this.id = id;  
 }  
  
 public String getUsuario() {  
 return usuario;  
 }  
  
 public void setUsuario(String usuario) {  
 this.usuario = usuario;  
 }  
  
 public String getSenha() {  
 return senha;  
 }  
  
 public void setSenha(String senha) {  
 this.senha = senha;  
 }  
}

**ListaDenuncia.java:**

package com.example.portfolio\_eniac.view;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.annotation.SuppressLint;  
import android.os.Bundle;  
import android.view.View;  
  
import com.example.portfolio\_eniac.R;  
import com.example.portfolio\_eniac.dao.DenunciaDAO;  
import com.example.portfolio\_eniac.model.Denuncia;  
  
import java.util.List;  
  
public class ListaDenuncia<textView> extends AppCompatActivity {  
  
 View txtNomeDenuncia;  
 @SuppressLint("WrongViewCast")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_lista\_denuncia*);  
  
 preenche();  
  
 }  
  
 private void preenche() {  
 DenunciaDAO dao = new DenunciaDAO();  
 List<Denuncia> list = dao.getAll();  
 for (int i = 0; i < list.size(); i++){  
  
 }  
 }  
 }

**3 – Layouts:**

**Activity Main (Login)**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <ImageView  
 android:id="@+id/imageView2"  
 android:layout\_width="390dp"  
 android:layout\_height="187dp"  
 android:layout\_marginTop="16dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:srcCompat="@drawable/logo\_portfolio\_maior" />  
  
 <EditText  
 android:id="@+id/txtUsuarioLogin"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="32dp"  
 android:ems="10"  
 android:hint="Digite o usuário"  
 android:inputType="textPersonName"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/lblResultadoLogin" />  
  
 <TextView  
 android:id="@+id/lblResultadoLogin"  
 android:layout\_width="233dp"  
 android:layout\_height="20dp"  
 android:layout\_marginTop="12dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.91"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/imageView2" />  
  
 <EditText  
 android:id="@+id/txtSenhaLogin"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="36dp"  
 android:ems="10"  
 android:hint="Digite a senha"  
 android:inputType="textPassword"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtUsuarioLogin" />  
  
 <Button  
 android:id="@+id/btnLogar"  
 android:layout\_width="278dp"  
 android:layout\_height="85dp"  
 android:layout\_marginTop="60dp"  
 android:onClick="login"  
 android:text="Entrar"  
 app:backgroundTint="#3F51B5"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.494"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtSenhaLogin" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**Activity\_menu\_principal (Menu - Home)**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:id="@+id/tituloMenuDenuncias"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MenuPrincipal">  
  
 <TextView  
 android:id="@+id/txtMenuDenuncias"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="24dp"  
 android:text="DENÚNCIAS"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <ImageButton  
 android:id="@+id/btnMenuDenuncias"  
 android:layout\_width="149dp"  
 android:layout\_height="112dp"  
 android:layout\_marginTop="16dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtMenuDenuncias"  
 app:srcCompat="@drawable/denuncia\_icon" />  
  
 <TextView  
 android:id="@+id/txtMenuPrefeitura"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="72dp"  
 android:text="PREFEITURA"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.495"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/btnMenuDenuncias" />  
  
 <ImageButton  
 android:id="@+id/imageButton"  
 android:layout\_width="149dp"  
 android:layout\_height="114dp"  
 android:layout\_marginTop="16dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtMenuPrefeitura"  
 app:srcCompat="@drawable/servicos\_municipais" />  
  
 <TextView  
 android:id="@+id/txtMenuConfig"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="64dp"  
 android:text="CONFIGURAÇÕES"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/imageButton" />  
  
 <ImageButton  
 android:id="@+id/imageButton2"  
 android:layout\_width="148dp"  
 android:layout\_height="101dp"  
 android:layout\_marginTop="20dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtMenuConfig"  
 app:srcCompat="@drawable/config\_icon" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Activity\_lista\_denuncia (Tela de Denuncia – Cadastrar, Visualizar e Buscar)**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".view.ListaDenuncia">  
  
 <TextView  
 android:id="@+id/textView54"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="CENTRO"  
 tools:layout\_editor\_absoluteX="318dp"  
 tools:layout\_editor\_absoluteY="532dp" />  
  
 <TextView  
 android:id="@+id/textView55"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="CENTRO"  
 tools:layout\_editor\_absoluteX="318dp"  
 tools:layout\_editor\_absoluteY="378dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine15"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="582dp" />  
  
 <TextView  
 android:id="@+id/textView56"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="CONTINENTAL II"  
 tools:layout\_editor\_absoluteX="272dp"  
 tools:layout\_editor\_absoluteY="582dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine16"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="532dp" />  
  
 <TextView  
 android:id="@+id/textView51"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="11"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="573dp" />  
  
 <TextView  
 android:id="@+id/textView50"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="ÁRVORE MUITO ESPAÇOSA"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="573dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine14"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="532dp" />  
  
 <TextView  
 android:id="@+id/textView48"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="POSTE DE LUZ QUEBRADO"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="523dp" />  
  
 <TextView  
 android:id="@+id/textView49"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="10"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="523dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine13"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="482dp" />  
  
 <TextView  
 android:id="@+id/textView46"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="ASFALTO REMENDADO"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="473dp" />  
  
 <TextView  
 android:id="@+id/textView47"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="9"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="473dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine12"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="429dp" />  
  
 <TextView  
 android:id="@+id/textView52"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="MACEDO"  
 tools:layout\_editor\_absoluteX="318dp"  
 tools:layout\_editor\_absoluteY="429dp" />  
  
 <TextView  
 android:id="@+id/textView53"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="PONTE GRANDE"  
 tools:layout\_editor\_absoluteX="275dp"  
 tools:layout\_editor\_absoluteY="482dp" />  
  
 <TextView  
 android:id="@+id/textView44"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="LIXO NA CALÇADA"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="420dp" />  
  
 <TextView  
 android:id="@+id/textView45"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="8"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="420dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine10"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="378dp" />  
  
 <TextView  
 android:id="@+id/textView37"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="7"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="369dp" />  
  
 <TextView  
 android:id="@+id/textView35"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="MUROS PICHADOS"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="369dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine9"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="327dp" />  
  
 <TextView  
 android:id="@+id/textView33"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="LAVRAS"  
 tools:layout\_editor\_absoluteX="318dp"  
 tools:layout\_editor\_absoluteY="327dp" />  
  
 <TextView  
 android:id="@+id/textView34"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="6"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="318dp" />  
  
 <TextView  
 android:id="@+id/textView32"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="TERRENO BALDIO SUJO"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="318dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine8"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="286dp" />  
  
 <TextView  
 android:id="@+id/textView30"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="JD. CUMBICA"  
 tools:layout\_editor\_absoluteX="292dp"  
 tools:layout\_editor\_absoluteY="286dp" />  
  
 <TextView  
 android:id="@+id/textView31"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="5"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="277dp" />  
  
 <TextView  
 android:id="@+id/textView29"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="POSTE SEM LUZ"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="277dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine7"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="234dp" />  
  
 <TextView  
 android:id="@+id/textView27"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="VILA GALVÃO"  
 tools:layout\_editor\_absoluteX="287dp"  
 tools:layout\_editor\_absoluteY="234dp" />  
  
 <TextView  
 android:id="@+id/textView28"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="4"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="225dp" />  
  
 <TextView  
 android:id="@+id/textView26"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="VAZAMENTO DE ÁGUA"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="225dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine6"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="184dp" />  
  
 <TextView  
 android:id="@+id/textView24"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="CECAP"  
 tools:layout\_editor\_absoluteX="318dp"  
 tools:layout\_editor\_absoluteY="184dp" />  
  
 <TextView  
 android:id="@+id/textView25"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="3"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="175dp" />  
  
 <TextView  
 android:id="@+id/textView23"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="ENTULHO NA CALÇADA"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="175dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine5"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="134dp" />  
  
 <TextView  
 android:id="@+id/textView21"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="JD. SÃO JOÃO"  
 tools:layout\_editor\_absoluteX="282dp"  
 tools:layout\_editor\_absoluteY="134dp" />  
  
 <TextView  
 android:id="@+id/textView22"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="2"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="125dp" />  
  
 <TextView  
 android:id="@+id/textView20"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="BURACO NO ASFALTO"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="125dp" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine4"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="85dp" />  
  
 <TextView  
 android:id="@+id/textView17"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="POSTE SEM LUZ"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="76dp" />  
  
 <TextView  
 android:id="@+id/textView18"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="CENTRO"  
 tools:layout\_editor\_absoluteX="318dp"  
 tools:layout\_editor\_absoluteY="85dp" />  
  
 <TextView  
 android:id="@+id/textView19"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="1"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="76dp" />  
  
 <EditText  
 android:id="@+id/txtDenunciaLista"  
 android:layout\_width="285dp"  
 android:layout\_height="50dp"  
 android:layout\_marginTop="4dp"  
 android:ems="10"  
 android:hint="Tipo de Denúncia, Bairro, Rua, etc..."  
 android:inputType="textPersonName"  
 app:layout\_constraintEnd\_toStartOf="@+id/btnPesquisa"  
 app:layout\_constraintHorizontal\_bias="0.06"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/btnPesquisa"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Buscar"  
 app:backgroundTint="#3F51B5"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/bntCadastrarDenuncia"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="32dp"  
 android:text="NOVA DENÚNCIA"  
 app:backgroundTint="#3F51B5"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.0"  
 app:layout\_constraintStart\_toStartOf="parent" />  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine"  
 android:layout\_width="361dp"  
 android:layout\_height="41dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:inputType="textMultiLine"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="85dp" />  
  
 <TextView  
 android:id="@+id/textView15"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="POSTE SEM LUZ"  
 tools:layout\_editor\_absoluteX="41dp"  
 tools:layout\_editor\_absoluteY="76dp" />  
  
 <TextView  
 android:id="@+id/textView12"  
 android:layout\_width="39dp"  
 android:layout\_height="39dp"  
 android:text="1"  
 tools:layout\_editor\_absoluteX="16dp"  
 tools:layout\_editor\_absoluteY="76dp" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**CONCLUSÃO**

Com esse trabalho, é possível ver a quão grandiosa é a programação para dispositivos Android, além do poder que a Linguagem de programação Java Orientada a Objeto nos fornece para desenvolvermos não só para web, desktop como também dispositivos móveis.   
 A possibilidade de criar inúmeras soluções de infinitas formas diferentes para um determinado problema, combinar os elementos visuais com a lógica de solução que requer bastante criatividade e consequentemente sendo um grande desafio, onde quem está desenvolvendo deve pensar na busca não só em uma boa solução como também uma boa experiência ao usuário, principalmente por se tratar de dispositivos Android que existem diversos modelos com diversas características de layout, exibição e hardware, onde tudo deve ser pensado para atender todos e garantir uma boa experiência de uso.  
 O Java no Android Studio é bem versátil, a forma como podemos utilizar os elementos visuais em combinação com os códigos para desenvolver funções e ações em cada elemento é bem vasta. Desenvolver para Android é mais que só criar um sistema funcional, é estar em contato muito próximo do usuário, pois se trata de seu smartphone, o dispositivo mais usado pelas pessoas diariamente, por isso existe uma grande responsabilidade de entregar um bom produto e também garantir um bom manuseio, possuindo ligação direta com a forma que o app é construído, não só se importando com layout, mas com a organização do código usando corretamente os conceitos de orientação a objetos, banco de dados e recursos, garantindo boa performance de produção também.