

# ***PDF – Projeto APK A2***

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# Códigos XML:

## AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Projeto_a2_apk"
        tools:targetApi="31">

        <!-- Main Activity -->
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

        <!-- Matricula Activity -->
        <activity
            android:name=".ActivityMatricula"
            android:exported="true">
        </activity>

        <!-- IMC Activity -->
        <activity
            android:name=".ActivityIMC"
            android:exported="true">
        </activity>

        <!-- Gasolina Activity -->
        <activity
            android:name=".ActivityGasolina"
            android:exported="true">
        </activity>

    </application>
</manifest>
```

## activity\_main.xml

```
<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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#F5F5F5"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tvTituloHome"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:fontFamily="sans-serif-medium"
        android:text="@string/projeto_a2_apk"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Headline"
        android:textColorLink="#4CAF50"
        android:textSize="34sp"
        android:textStyle="italic"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:text="Projeto A2 - APK" />

    <Button
        android:id="@+id/btIMC"
        android:layout_width="0dp"
        android:layout_height="100dp"
        android:layout_margin="12dp"
        android:layout_weight="1"
        android:fontFamily="sans-serif-condensed"
        android:text="@string/calculadora_imc"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="#FFFFFF"
        android:backgroundTint="#03A9F4"
        android:textSize="28sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvTituloHome"
        tools:text="Calculadora IMC" />

    <Button
        android:id="@+id/btGasolina"
        android:layout_width="0dp"
        android:layout_height="100dp"
        android:layout_margin="12dp"
        android:layout_weight="1"
        android:fontFamily="sans-serif-condensed"
        android:text="@string/pre_os_de_combust_veis"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="#FFFFFF"
        android:backgroundTint="#FF9800"
        android:textSize="28sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/btMatricula"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/btIMC"
        tools:text="Preços de Combustíveis" />

    <Button
```

```
    android:id="@+id/btMatricula"
    android:layout_width="0dp"
    android:layout_height="100dp"
    android:layout_margin="12dp"
    android:layout_weight="1"
    android:fontFamily="sans-serif-condensed"
    android:text="@string/matr_cula_aluno"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textColor="#FFFFFF"
    android:backgroundTint="#8BC34A"
    android:textSize="28sp"
    android:textStyle="bold"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btGasolina"
    tools:text="Matrícula Aluno" />
```

<Button

```
    android:id="@+id/btFechar"
    android:layout_width="0dp"
    android:layout_height="100dp"
    android:layout_margin="12dp"
    android:layout_weight="1"
    android:insetRight="0dp"
    android:fontFamily="sans-serif-condensed"
    android:text="@string/fechar"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textColor="#FFFFFF"
    android:backgroundTint="#F44336"
    android:textSize="28sp"
    android:textStyle="bold"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btMatricula"
    tools:text="Fechar" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

## activity\_matricula.xml

```
<?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/main"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:padding="16dp"
android:background="#E0F7FA"
tools:context=".ActivityMatricula">

    <TextView
        android:id="@+id/tvTituloMatricula"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:gravity="center"
        android:text="@string/mat_aluno"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Headline"
        android:textColor="#00796B"
        android:textSize="28sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toStartOf="@+id/btHome"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:text="Matrícula Aluno" />

    <Button
        android:id="@+id/btHome"
        android:layout_width="75dp"
        android:layout_height="75dp"
        android:layout_marginTop="24dp"
        android:text="@string/x"
        android:textColor="#FFFFFF"
        android:backgroundTint="#E53935"
        android:textSize="24sp"
        android:textStyle="bold"
        app:cornerRadius="75dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/tvNome"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:text="@string/nome_gustavo_silva_agapio"
        android:textAlignment="textStart"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="#00796B"
        android:textSize="22sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvTituloMatricula" />

    <TextView
        android:id="@+id/tvRgm"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:text="@string/rgm_34730753"
        android:textAlignment="textStart"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
```

```

        android:textColor="#00796B"
        android:textSize="22sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvNome" />

<TextView
    android:id="@+id/tvCurso"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"

    android:text="@string/curso_tecnologia_em_analise_e_desenvolvimento_de_sistemas"
    android:textAlignment="textStart"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textColor="#00796B"
    android:textSize="22sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tvRgm" />

<TextView
    android:id="@+id/tvDisciplina"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"
    android:text="@string/disciplina"
    android:textAlignment="textStart"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textColor="#00796B"
    android:textSize="22sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tvCurso" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

## activity\_imc.xml

```
<?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/main"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:padding="16dp"
tools:context=".ActivityIMC">

    <TextView
        android:id="@+id/tvTituloIMC"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:gravity="center"
        android:text="@string/calc_imc"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Headline"
        android:textColor="#00796B"
        android:textSize="28sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toStartOf="@+id/btHome"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:text="Calculadora IMC" />

    <Button
        android:id="@+id/btHome"
        android:layout_width="68dp"
        android:layout_height="60dp"
        android:layout_marginTop="24dp"
        android:backgroundTint="#E53935"
        android:text="@string/xx"
        android:textColor="#FFFFFF"
        android:textSize="24sp"
        android:textStyle="bold"
        app:cornerRadius="50dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/tinputPeso"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:hint="@string/peso_em_kg"
        android:inputType="number"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="22sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvTituloIMC" />

    <EditText
        android:id="@+id/tinputAltura"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:hint="@string/altura_em_cm"
        android:inputType="number"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="22sp"
        app:layout_constraintEnd_toEndOf="parent"
```

```

app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/tinputPeso" />

<LinearLayout
    android:id="@+id/linearLayout2"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    android:orientation="horizontal"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tinputAltura">

    <TextView
        android:id="@+id/tvIMC"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:gravity="center"
        android:text="@string/imc"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="#00796B"
        android:textSize="22sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/tvIMCResultado"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:gravity="center"
        android:text="@string/resultado_imc"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="#00796B"
        android:textSize="22sp"
        tools:text="..." />
</LinearLayout>

<TextView
    android:id="@+id/tvClassificacao"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    android:gravity="center"
    android:text="@string/classifica_o"
    android:textAlignment="center"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textColor="#00796B"
    android:textSize="22sp"
    android:textStyle="bold"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/linearLayout2" />

```



## activity\_gasolina.xml

```
<?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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="24dp"
    tools:context=".ActivityGasolina">

    <TextView
        android:id="@+id/tvTituloGasolina"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:gravity="center"
        android:text="@string/conversor_de_pre_os_da_gasolina_e_etanol"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Headline"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toStartOf="@+id/btHome"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:text="Conversor de Preços da Gasolina e Etanol" />

    <Button
        android:id="@+id/btHome"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="24dp"
        android:backgroundTint="#E53935"
        android:text="@string/xxx"
        android:textSize="24sp"
        android:textStyle="bold"
        app:cornerRadius="50dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/tvEscolhaCombustivel"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:text="@string/escolha_o_tipo_de_combust_vel"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvTituloGasolina"
        tools:text="Escolha o Tipo de Combustível" />

    <LinearLayout
        android:id="@+id/layoutInputGasolina"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:orientation="horizontal"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvEscolhaCombustivel">
```

```

<TextView
    android:id="@+id/tvReais1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:text="@string/r"
    android:textAlignment="center"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textSize="24sp"
    android:textStyle="bold" />

<EditText
    android:id="@+id/tinputPrecoGasolina"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:hint="@string/digite_o_pre_o_da_gasolina"
    android:inputType="numberDecimal"
    android:textAppearance="@style/TextAppearance.AppCompat.Body1" />
</LinearLayout>

<LinearLayout
    android:id="@+id/layoutInputEtanol"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    android:orientation="horizontal"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/layoutInputGasolina">

    <TextView
        android:id="@+id/tvReais2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:text="@string/rs"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="24sp"
        android:textStyle="bold" />

    <EditText
        android:id="@+id/tinputPrecoEtanol"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:hint="@string/digite_o_pre_o_do_etanol"
        android:inputType="numberDecimal"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1" />
</LinearLayout>

<RadioGroup
    android:id="@+id/rGOpcoes"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/layoutInputEtanol">

    <RadioButton
        android:id="@+id/rbGasolina"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/gasolina"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"

```

```

        android:textSize="24sp" />

        <RadioButton
            android:id="@+id/rbEtanol"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/etanol"
            android:textAppearance="@style/TextAppearance.AppCompat.Body1"
            android:textSize="24sp" />

    </RadioGroup>

    <TextView
        android:id="@+id/tvRelacaoPreco"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:gravity="center"
        android:text="@string/rela_o_do_pre_o"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/rGOpcoes" />

    <TextView
        android:id="@+id/tvMelhorPreco"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:gravity="center"
        android:text="@string/melhor_combust_vel"
        android:textAlignment="center"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvRelacaoPreco" />

    <Button
        android:id="@+id/btLimpar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:backgroundTint="#FF7043"
        android:text="@string/lmpr"
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textSize="24sp"
        android:textStyle="bold"
        app:cornerRadius="50dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvMelhorPreco">

    </Button>

</androidx.constraintlayout.widget.ConstraintLayout>

```

# Códigos Java:

## MainActivity.java

```
package com.example.projeto_a2_apk;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    Button btCalculadoraIMC, btGasolina, btMatriculaAluno, btFechar;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets)
-> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });

        btCalculadoraIMC=(Button) findViewById(R.id.btIMC);
        btCalculadoraIMC.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(MainActivity.this,ActivityIMC.class);
                startActivity(intent);
            }
        });

        btGasolina=(Button) findViewById(R.id.btGasolina);
        btGasolina.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(MainActivity.this,ActivityGasolina.class);
                startActivity(intent);
            }
        });

        btMatriculaAluno=(Button) findViewById(R.id.btMatricula);
        btMatriculaAluno.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(MainActivity.this,ActivityMatricula.class);
                startActivity(intent);
            }
        });

        btFechar=(Button) findViewById(R.id.btFechar);
        btFechar.setOnClickListener(new View.OnClickListener() {
            @Override
```

```
        public void onClick(View v) {  
            finishAffinity();  
        }  
    });  
}  
}
```

# ActivityMatricula.java

```
package com.example.projeto_a2_apk;

import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class ActivityMatricula extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_matricula);
        configureEdgeToEdge();
        configureButton();
    }

    private void configureEdgeToEdge() {
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets)
-> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }

    private void configureButton() {
        Button btHome = findViewById(R.id.btHome);
        btHome.setOnClickListener(view -> {
            startActivity(new Intent(ActivityMatricula.this, MainActivity.class));
        });
    }
}
```

# ActivityIMC.java

```
package com.example.projeto_a2_apk;

import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class ActivityMatricula extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_matricula);
        configureEdgeToEdge();
        configureButton();
    }

    private void configureEdgeToEdge() {
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets)
-> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }

    private void configureButton() {
        Button btHome = findViewById(R.id.btHome);
        btHome.setOnClickListener(view -> {
            startActivity(new Intent(ActivityMatricula.this, MainActivity.class));
        });
    }
}
```

# ActivityGasolina.java

```
package com.example.projeto_a2_apk;

import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class ActivityGasolina extends AppCompatActivity {

    private Button btHome, botaoLimpar;
    private EditText inputPrecoGasolina, inputPrecoEtanol;
    private RadioGroup radioGroup;
    private RadioButton rbGasolina, rbEtanol;
    private TextView relacaoPreco, melhorCombustivel;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_gasolina);
        configureEdgeToEdge();
        initializeViews();
        configureRadioGroupListener();
        configureClearButton();
        configureHomeButton();
    }

    private void configureEdgeToEdge() {
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets)
-> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }

    private void initializeViews() {
        radioGroup = findViewById(R.id.rGOpcoes);
        rbGasolina = findViewById(R.id.rbGasolina);
        rbEtanol = findViewById(R.id.rbEtanol);
        inputPrecoGasolina = findViewById(R.id.tinputPrecoGasolina);
        inputPrecoEtanol = findViewById(R.id.tinputPrecoEtanol);
        relacaoPreco = findViewById(R.id.tvRelacaoPreco);
        melhorCombustivel = findViewById(R.id.tvMelhorPreco);
        botaoLimpar = findViewById(R.id.btLimpar);
        btHome = findViewById(R.id.btHome);
    }

    private void configureRadioGroupListener() {
        radioGroup.setOnCheckedChangeListener((group, checkedId) -> calcularRelacao());
    }

    private void calcularRelacao() {
        String gasolinaString = inputPrecoGasolina.getText().toString();
        String etanolString = inputPrecoEtanol.getText().toString();

        if (gasolinaString.isEmpty() || etanolString.isEmpty()) {
```



```

        melhorCombustivel.setText("Preencha os valores corretamente");
        return;
    }

    try {
        double gasolina = Double.parseDouble(gasolinaString);
        double etanol = Double.parseDouble(etanolString);
        double relacaoIdeal = 0.7;
        double relacaoAtual = etanol / gasolina;

        if (relacaoAtual <= relacaoIdeal) {
            melhorCombustivel.setText("Abasteça com Etanol");
        } else {
            melhorCombustivel.setText("Abasteça com Gasolina");
        }
        relacaoPreco.setText("Relação: " + String.format("%.2f", relacaoAtual *
100) + "%");
    } catch (NumberFormatException e) {
        melhorCombustivel.setText("Valores inválidos");
    }
}

private void configureClearButton() {
    botaoLimpar.setOnClickListener(view -> {
        inputPrecoGasolina.setText("");
        inputPrecoEtanol.setText("");
        relacaoPreco.setText("Relação do Preço");
        melhorCombustivel.setText("Melhor Combustível");
    });
}

private void configureHomeButton() {
    btHome.setOnClickListener(view -> startActivity(new
Intent(ActivityGasolina.this, MainActivity.class)));
}
}

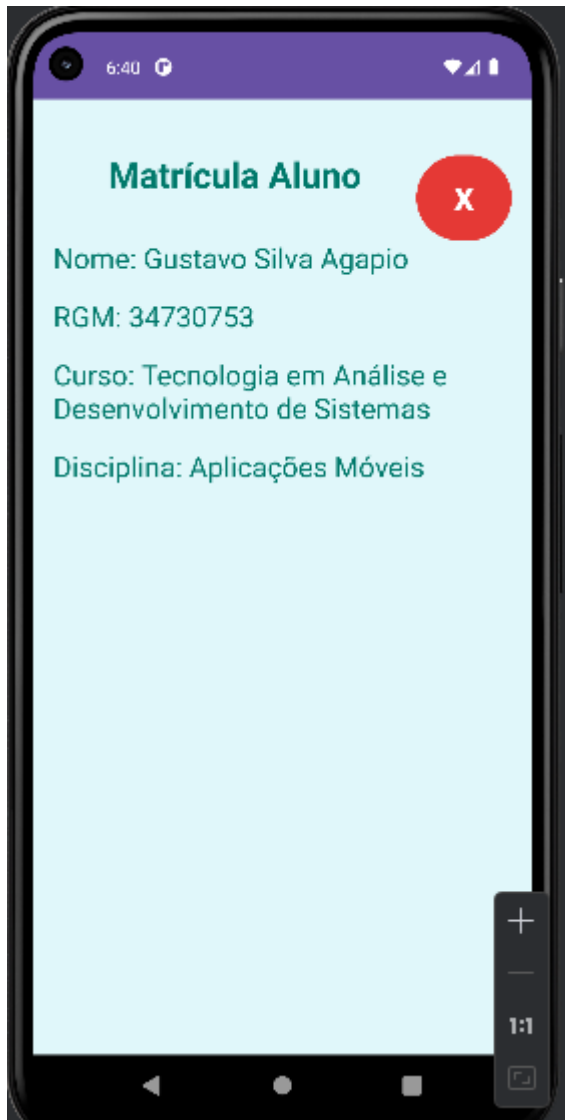
```

## ***Telas do Programa:***

### **Home – Main**



# Matrícula Aluno



## Calculadora IMC

6:38

### Calculadora IMC

X

65

165

IMC: 23.9

Normal

Enviar

Limpar

+

-

1:1

📷

# Gasolina e Etanol

