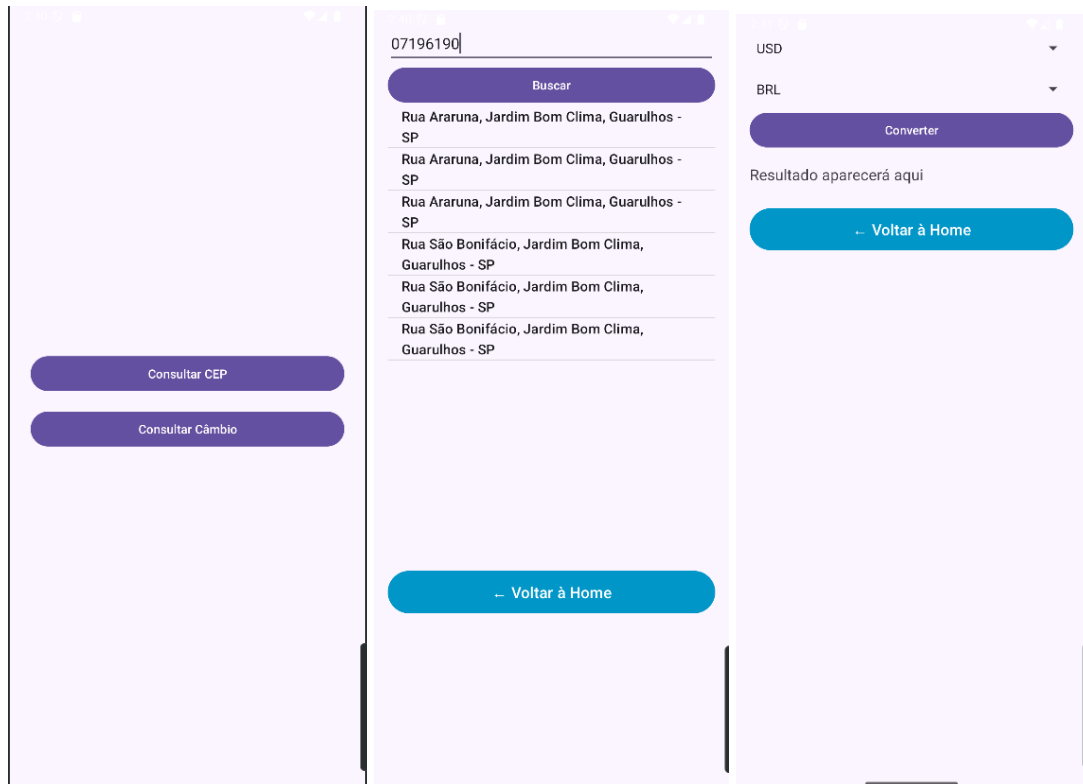


Projeto efetuado por
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Imagens



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"
package="com.example.api_viacep_project">

    <!-- Permissão para acesso à internet -->
    <uses-permission android:name="android.permission.INTERNET"/>

    <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.API_ViaCep_Project"
```

```

        tools:targetApi="31">

        <!-- Tela inicial (home) -->
        <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>

        <!-- Activity para buscar CEP -->
        <activity android:name=".ViaCepActivity"
android:exported="false" />

        <!-- Activity para conversão de moedas -->
        <activity android:name=".CurrencyActivity"
android:exported="false" />

    </application>

</manifest>

```

CurrencyActivity.kt

```

package com.example.api_viacep_project

import android.os.Bundle
import android.widget.ArrayAdapter
import android.widget.Button
import android.widget.Spinner
import android.widget.TextView
import androidx.appcompat.app.AppCompatActivity
import okhttp3.*
import org.json.JSONObject
import java.io.IOException

class CurrencyActivity : AppCompatActivity() {

```

```

    private lateinit var spinnerFrom: Spinner
    private lateinit var spinnerTo: Spinner
    private lateinit var btnConvert: Button
    private lateinit var txtResult: TextView
    private lateinit var btnVoltar: Button

```

```

private val client = OkHttpClient()

override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContentView(R.layout.activity_currency)

    spinnerFrom = findViewById(R.id.spinnerFrom)
    spinnerTo = findViewById(R.id.spinnerTo)
    btnConvert = findViewById(R.id.btnConvert)
    txtResult = findViewById(R.id.txtResult)
    btnVoltar = findViewById(R.id.btnVoltar)

    val currencies = arrayOf("USD", "BRL", "EUR", "JPY")
    val adapter = ArrayAdapter(this,
android.R.layout.simple_spinner_dropdown_item, currencies)
    spinnerFrom.adapter = adapter
    spinnerTo.adapter = adapter

    btnConvert.setOnClickListener {
        val from = spinnerFrom.selectedItem.toString()
        val to = spinnerTo.selectedItem.toString()
        fetchConversion(from, to)
    }

    btnVoltar.setOnClickListener {
        finish()
    }
}

private fun fetchConversion(from: String, to: String) {
    val url =
"https://api.exchangerate.host/latest?base=$from&symbols=$to"

    val request = Request.Builder().url(url).build()

    client.newCall(request).enqueue(object : Callback {
        override fun onFailure(call: Call, e: IOException) {
            runOnUiThread {
                txtResult.text = "Erro ao buscar conversão"
            }
        }

        override fun onResponse(call: Call, response: Response)
{
            response.body()?.use { responseBody ->
                val json = responseBody.string()
                if (json.isNotEmpty()) {
                    val jsonObj = JSONObject(json)

```

```

        val rate =
jsonObj.getJSONObject("rates").getDouble(to)
        runOnUiThread {
            txtResult.text = "1 $from = $rate $to"
        }
    } else {
        runOnUiThread {
            txtResult.text = "Resposta inválida"
        }
    }
} ?: runOnUiThread {
    txtResult.text = "Erro: resposta sem corpo"
}
}

}))
}
}

```

Endereco.kt

```
package com.example.api_viacep_project
```

```

data class Endereco(
    val cep: String?,
    val logradouro: String?,
    val complemento: String?,
    val bairro: String?,
    val localidade: String?,
    val uf: String?
)

```

MainActivity.kt

```
package com.example.api_viacep_project
```

```

import android.content.Intent
import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import android.widget.Button

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
    }
}

```

```

        val btnViaCep = findViewById<Button>(R.id.btnViaCep)
        val btnCurrency = findViewById<Button>(R.id.btnCurrency)

        btnViaCep.setOnClickListener {
            startActivity(Intent(this, ViaCepActivity::class.java))
        }

        btnCurrency.setOnClickListener {
            startActivity(Intent(this,
CurrencyActivity::class.java))
        }
    }
}

```

ViaCepActivity.kt

```

package com.example.api_viacep_project

import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.ListView
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity
import com.google.gson.Gson
import okhttp3.*
import java.io.IOException

class ViaCepActivity : AppCompatActivity() {

    private lateinit var edtCep: EditText
    private lateinit var btnBuscar: Button
    private lateinit var listView: ListView
    private val client = OkHttpClient()
    private val listItems = mutableListOf<String>()
    private lateinit var adapter:
android.widget.ArrayAdapter<String>

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_viacep)

        edtCep = findViewById(R.id.edtCep)
        btnBuscar = findViewById(R.id.btnBuscar)
        listView = findViewById(R.id.listView)
    }
}

```

```

        adapter = android.widget.ArrayAdapter(this,
android.R.layout.simple_list_item_1, listItems)
        listView.adapter = adapter

        val btnVoltar = findViewById<Button>(R.id.btnVoltar)
        btnVoltar.setOnClickListener {
            finish() // Encerra a activity atual e volta pra
anterior (MainActivity)
        }

        btnBuscar.setOnClickListener {
            val cep = edtCep.text.toString()
            if (cep.isNotEmpty()) {
                buscarCep(cep)
            } else {
                Toast.makeText(this, "Digite um CEP",
Toast.LENGTH_SHORT).show()
            }
        }
    }

    private fun buscarCep(cep: String) {
        val url = "https://viacep.com.br/ws/$cep/json/"
        val request = Request.Builder().url(url).build()

        client.newCall(request).enqueue(object : Callback {
            override fun onFailure(call: Call, e: IOException) {
                runOnUiThread {
                    Toast.makeText(this@ViaCepActivity, "Erro ao
buscar CEP", Toast.LENGTH_SHORT).show()
                }
            }

            override fun onResponse(call: Call, response: Response)
{
                response.body()?.use { responseBody ->
                    val json = responseBody.string()
                    val endereco = Gson().fromJson(json,
Endereco::class.java)
                    val resultado = "${endereco.logradouro},
${endereco.bairro}, ${endereco.localidade} - ${endereco.uf}"
                    runOnUiThread {
                        listItems.add(resultado)
                        adapter.notifyDataSetChanged()
                    }
                } ?: runOnUiThread {
                    Toast.makeText(this@ViaCepActivity, "Erro:
resposta sem corpo", Toast.LENGTH_SHORT).show()
                }
            }
        })
    }
}

```

```

        }
    }
}

```

ViaCepService.kt

```
package com.example.api_viacep_project
```

```

import retrofit2.Call
import retrofit2.http.GET
import retrofit2.http.Path

interface ViaCepService {
    @GET("{cep}/json/")
    fun buscarCep(@Path("cep") cep: String): Call<Endereco>
}

```

activity_currency.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:padding="16dp"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <Spinner
        android:id="@+id/spinnerFrom"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:minHeight="48dp" />

    <Spinner
        android:id="@+id/spinnerTo"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:minHeight="48dp" />

    <Button
        android:id="@+id/btnConvert"
        android:text="Converter"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />

```

```

<TextView
    android:id="@+id/txtResult"
    android:text="Resultado aparecerá aqui"
    android:textSize="18sp"
    android:layout_marginTop="16dp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />

<Button
    android:id="@+id/btnVoltar"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="← Voltar à Home"
    android:textAllCaps="false"
    android:textSize="18sp"
    android:textColor="@android:color/white"
    android:backgroundTint="@android:color/holo_blue_dark"
    android:layout_marginTop="24dp"
    android:layout_marginBottom="16dp"
    android:padding="12dp" />

</LinearLayout>

```

activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="24dp">

    <Button
        android:id="@+id/btnViaCep"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Consultar CEP" />

    <Button
        android:id="@+id/btnCurrency"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Consultar Câmbio"
        android:layout_marginTop="16dp" />

```



```
</LinearLayout>
```

activity_viacep.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:padding="16dp"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <EditText
        android:id="@+id/edtCep"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Digite o CEP"
        android:inputType="number"
        android:minHeight="48dp" />

    <Button
        android:id="@+id/btnBuscar"
        android:text="Buscar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="511dp" />

    <Button
        android:id="@+id/btnVoltar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="← Voltar à Home"
        android:textAllCaps="false"
        android:textSize="18sp"
        android:textColor="@android:color/white"
        android:backgroundTint="@android:color/holo_blue_dark"
        android:layout_marginTop="24dp"
        android:layout_marginBottom="16dp"
        android:padding="12dp" />
</LinearLayout>
```

build.gradle.kts -> module:app

```

plugins {
    id("com.android.application")
    id("org.jetbrains.kotlin.android")
}

android {
    namespace = "com.example.api_viacep_project"
    compileSdk = 35

    defaultConfig {
        applicationId = "com.example.api_viacep_project"
        minSdk = 35
        targetSdk = 35
        versionCode = 1
        versionName = "1.0"

        testInstrumentationRunner =
"androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            isMinifyEnabled = false
            proguardFiles(
getDefaultProguardFile("proguard-android-optimize.txt"),
                "proguard-rules.pro"
            )
        }
    }

    compileOptions {
        sourceCompatibility = JavaVersion.VERSION_11
        targetCompatibility = JavaVersion.VERSION_11
    }
    kotlinOptions {
        jvmTarget = "11"
    }
}

dependencies {
    implementation("androidx.core:core-ktx:1.12.0")
    implementation("androidx.appcompat:appcompat:1.6.1")
    implementation("com.google.android.material:material:1.11.0")
    implementation("androidx.activity:activity-ktx:1.8.2")

    implementation("androidx.constraintlayout:constraintlayout:2.1.4")
}

```

```
implementation("com.squareup.retrofit2:retrofit:2.9.0")
implementation("com.squareup.retrofit2:converter-gson:2.9.0")

testImplementation("junit:junit:4.13.2")
androidTestImplementation("androidx.test.ext:junit:1.1.5")

androidTestImplementation("androidx.test.espresso:espresso-core:3.
5.1")

implementation(libs.retrofit)
implementation(libs.gsonconverter)

}
```