

INSTITUTO FEDERAL DE
EDUCAÇÃO, CIÊNCIA E TECNOLOGIA
MARANHÃO

Prof. MSc. Flávio Barros

flavioifma@gmail.com

www.flaviobarros.com.br

Programação para Dispositivos Móveis

Aula - Projeto Android

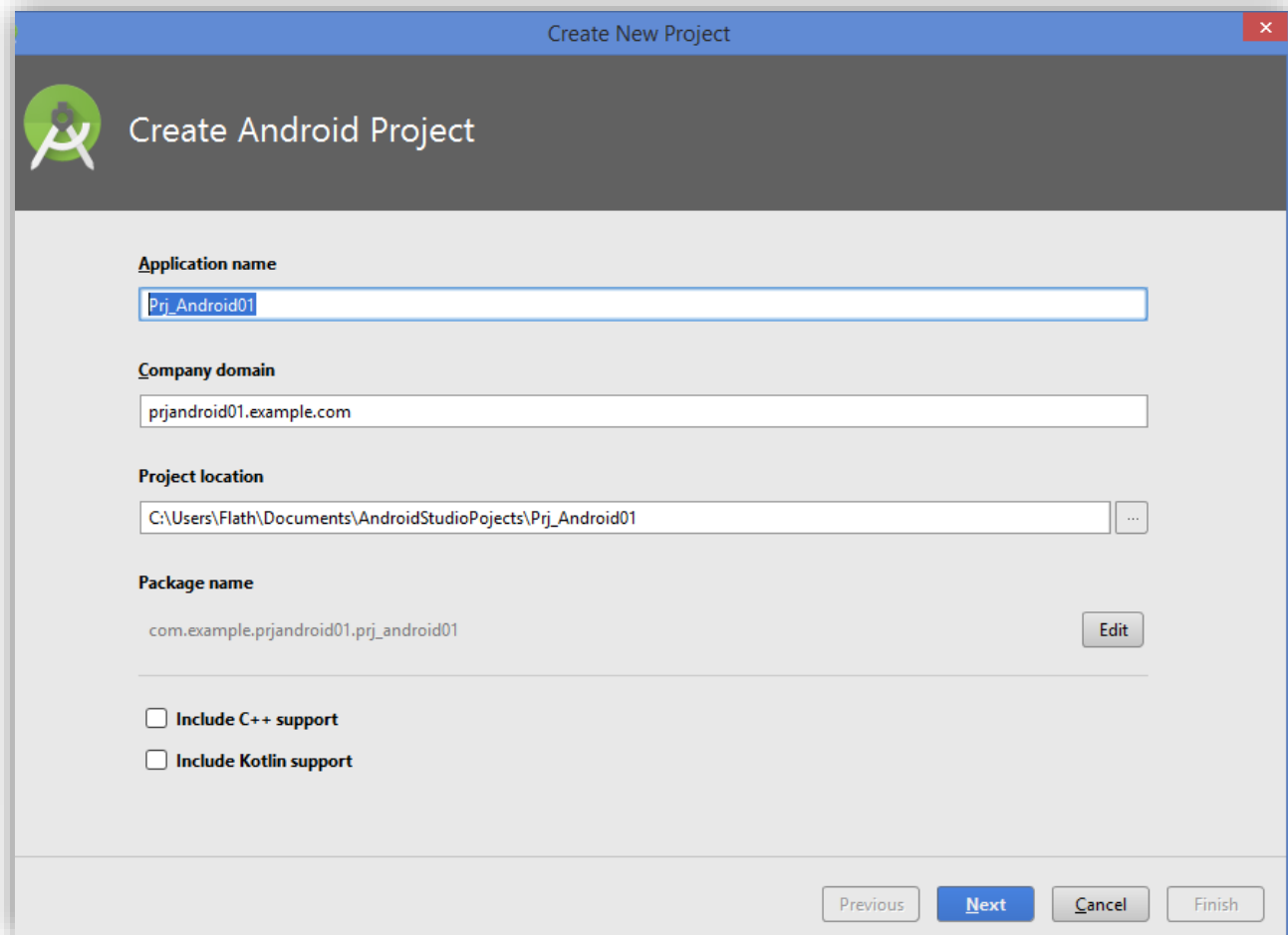
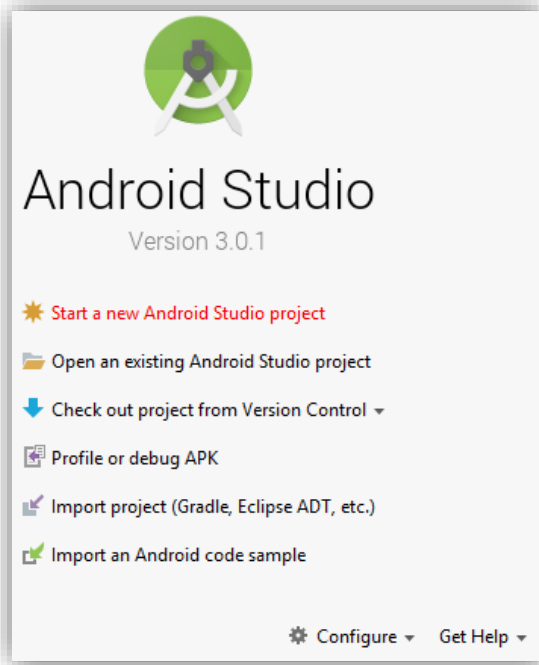
Caxias - MA

Roteiro




Criando meu primeiro
Projeto Android

Prj_Android01



Prj_Android01



Target Android Devices

Select the form factors and minimum SDK

Some devices require additional SDKs. Low API levels target more devices, but offer fewer API features.

☒ **Phone and Tablet**

API 19: Android 4.4 (KitKat)

By targeting **API 19 and later**, your app will run on approximately **90,1%** of devices. [Help me choose](#)

☐ Include Android Instant App support

☐ **Wear**

API 21: Android 5.0 (Lollipop)

☐ **TV**

API 21: Android 5.0 (Lollipop)

☐ **Android Auto**

☐ **Android Things**

API 24: Android 7.0 (Nougat)

Previous

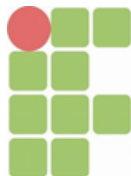
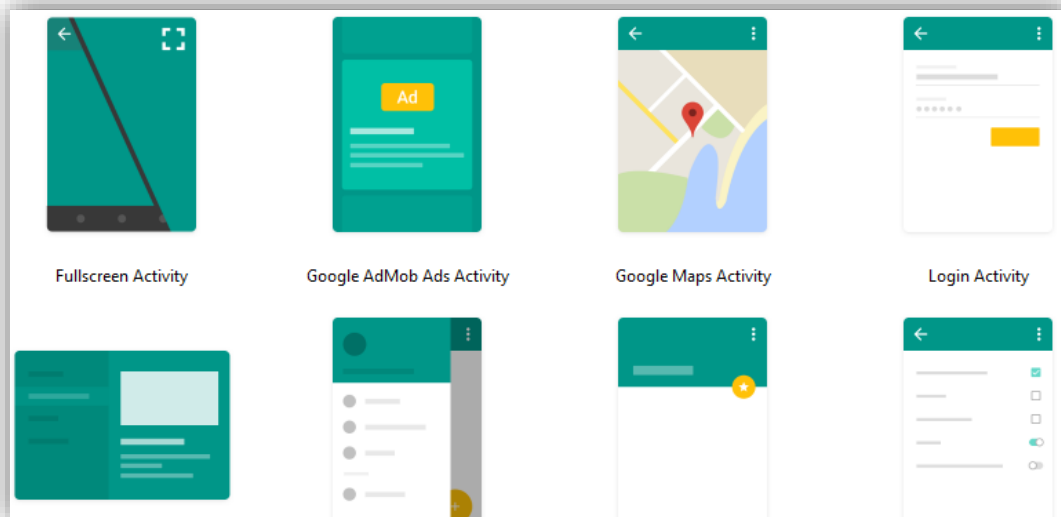
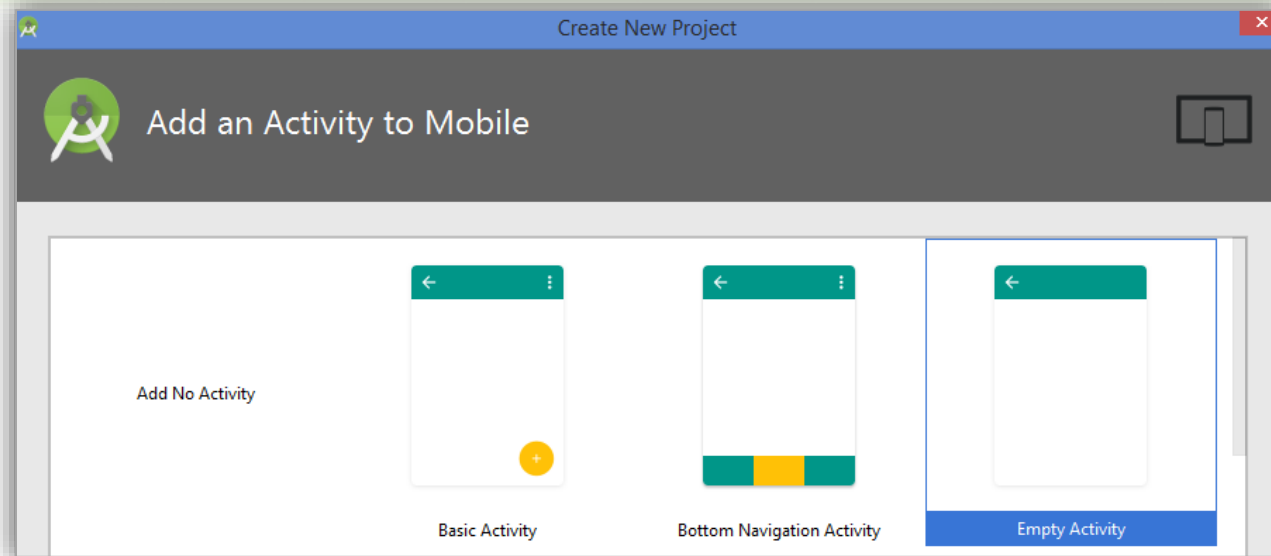
Next

Cancel

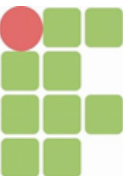
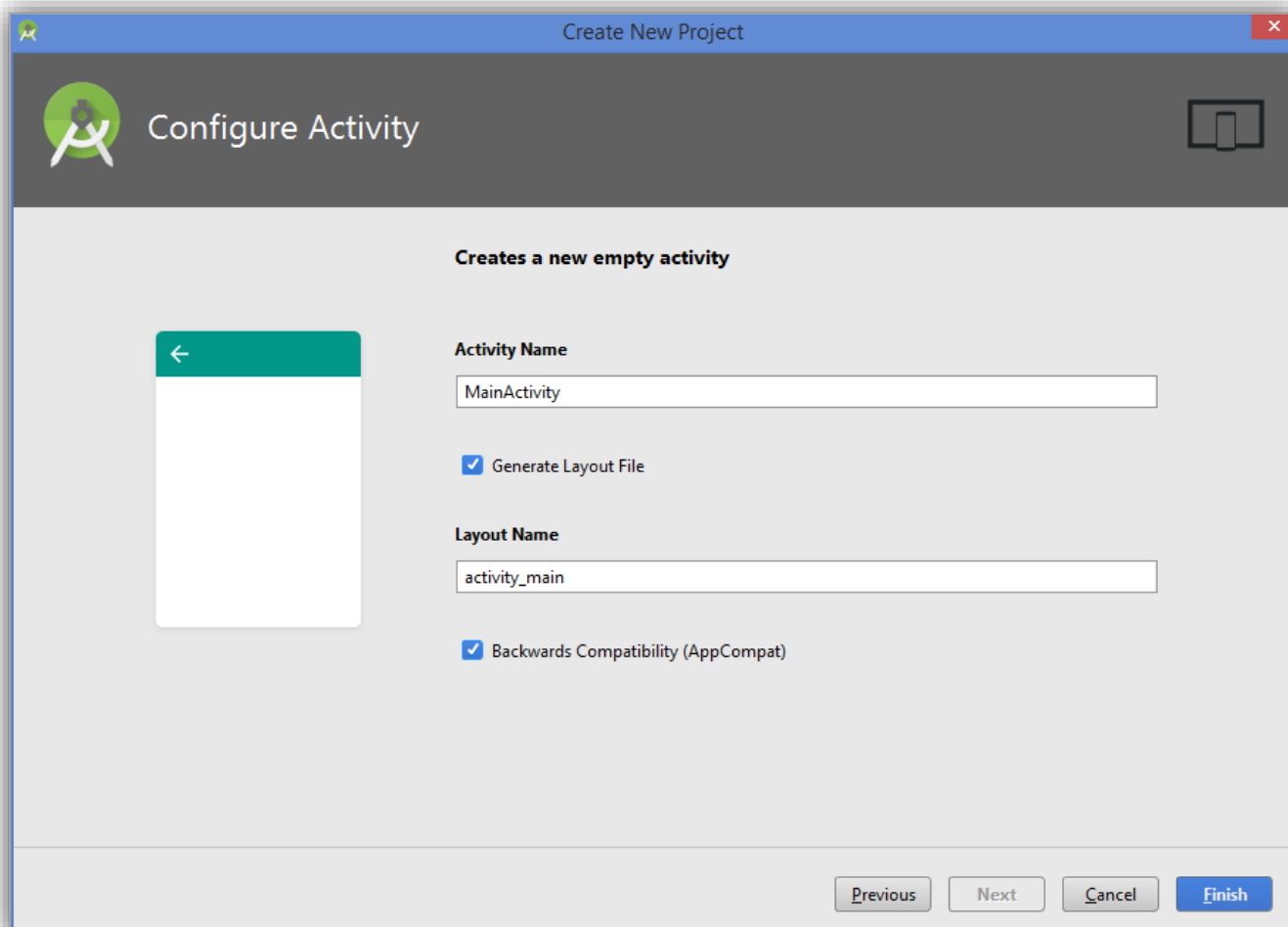
ANDROID PLATFORM VERSION	API LEVEL	CUMULATIVE DISTRIBUTION
4.0 Ice Cream Sandwich	15	
4.1 Jelly Bean	16	99,2%
4.2 Jelly Bean	17	96,0%
4.3 Jelly Bean	18	91,4%
4.4 KitKat	19	90,1%
5.0 Lollipop	21	71,3%
5.1 Lollipop	22	62,6%
6.0 Marshmallow	23	39,3%
7.0 Nougat	24	8,1%
7.1 Nougat	25	1,5%



Prj_Android01

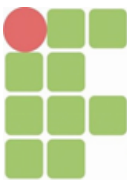
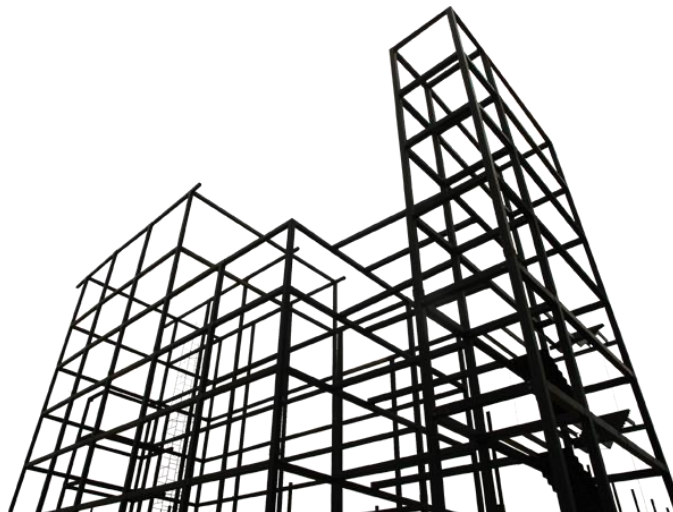


Prj_Android01



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Estrutura de um Projeto Android



Estrutura de um Projeto Android

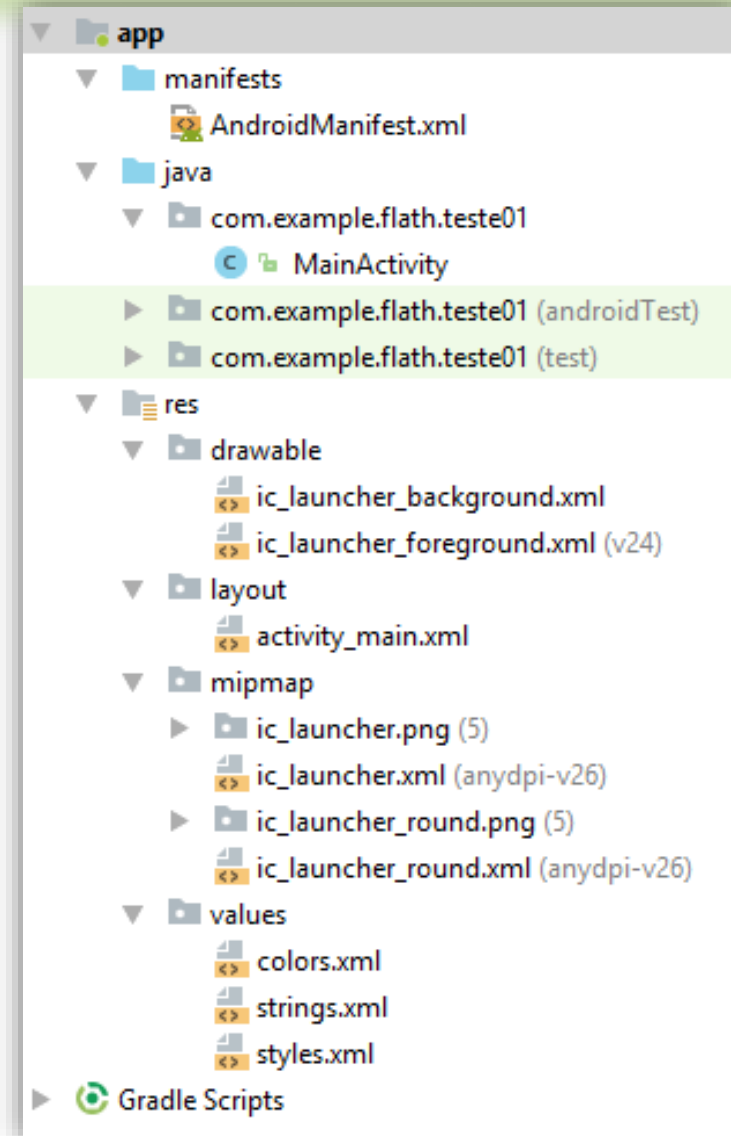
java

- É pasta onde fica o código fonte *java* da nossa aplicação.

res

- Pasta onde ficam arquivos de mídia que são usados na aplicação; Podem ser quaisquer tipos como vídeos, sons, imagens, etc.

res - abreviação de *resources*, esta pasta é subdividida em várias pastas, com propósitos diferentes.



Subpastas de “res”

drawable

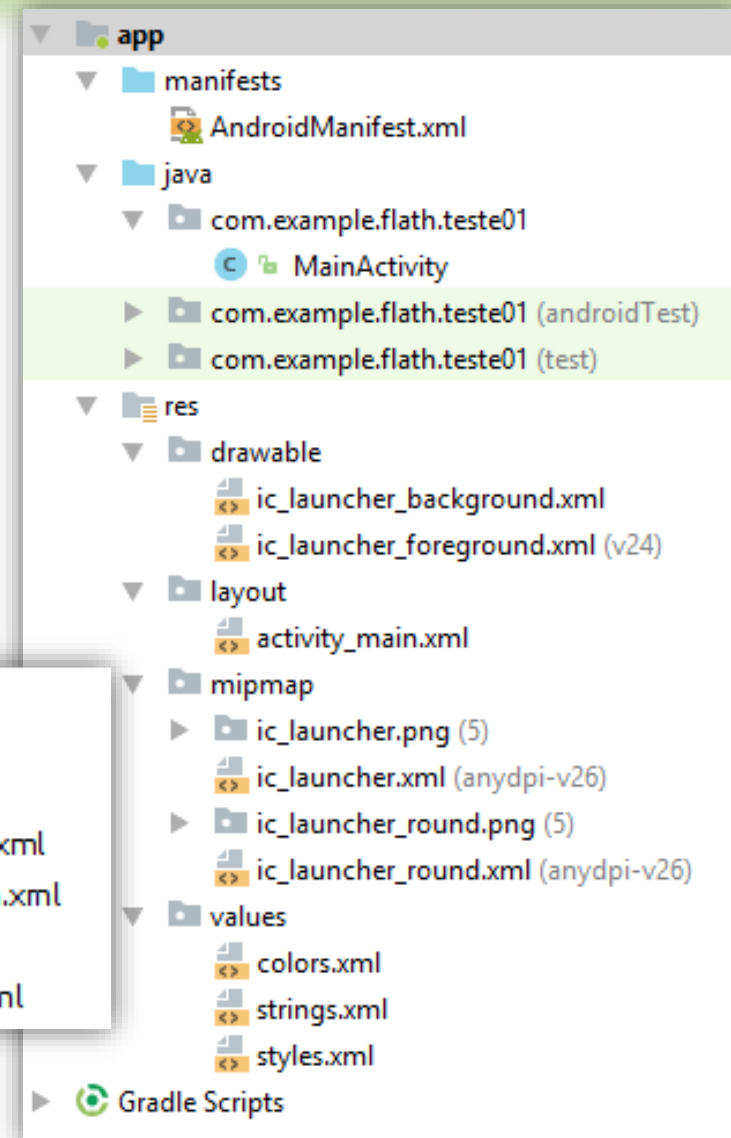
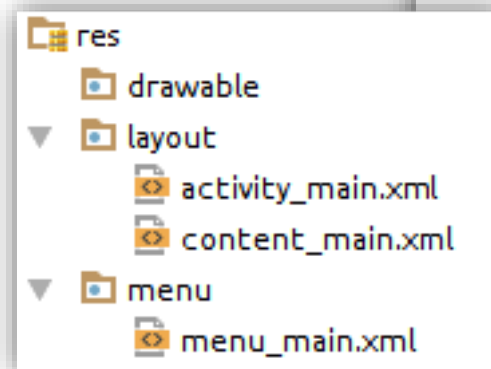
- São destinadas a armazenar imagens que são usadas na aplicação, ex. ícones.

layout

- Se destina a armazenar os arquivos XML que representam o layout das telas da aplicação.

menu

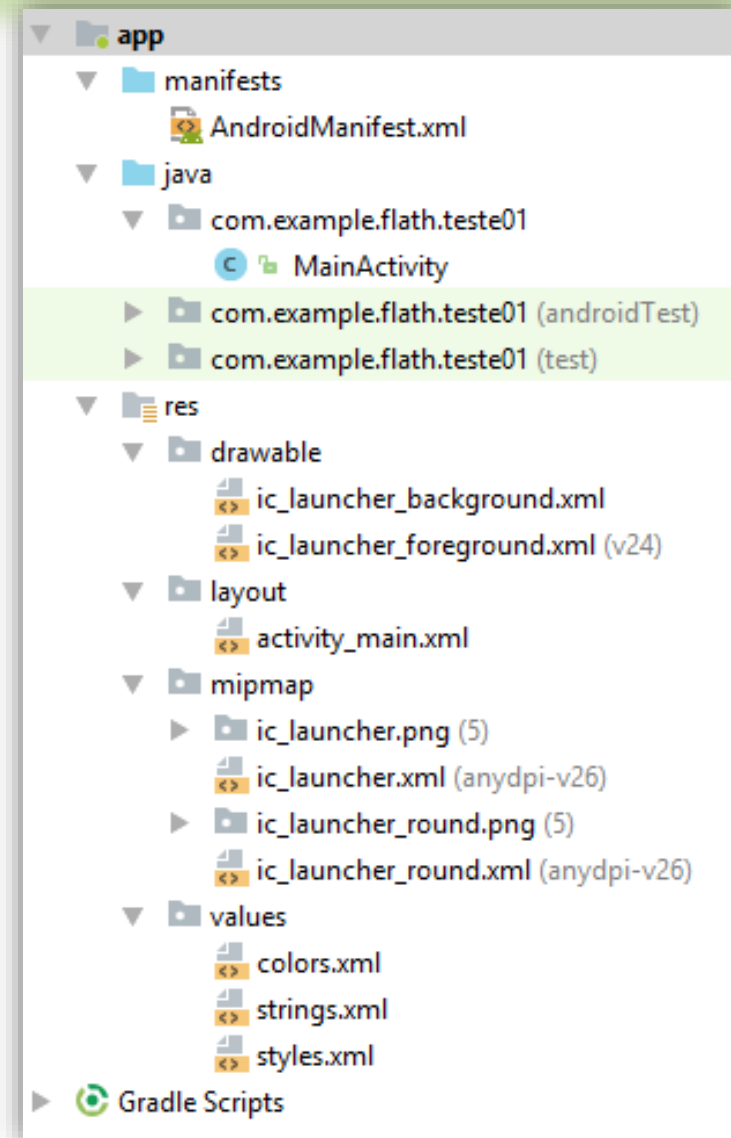
- Se destina a armazenar configurações de menu do aplicativo.



Subpastas de “res”

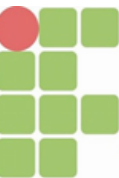
values

- A pasta *values* também se destina a armazenar XMLs que serão usados na aplicação.



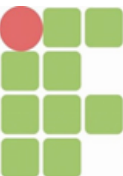
Roteiro

AndroidManifest.xml



AndroidManifest.xml

- É o arquivo que guarda a configuração de um aplicativo Android.



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Activity

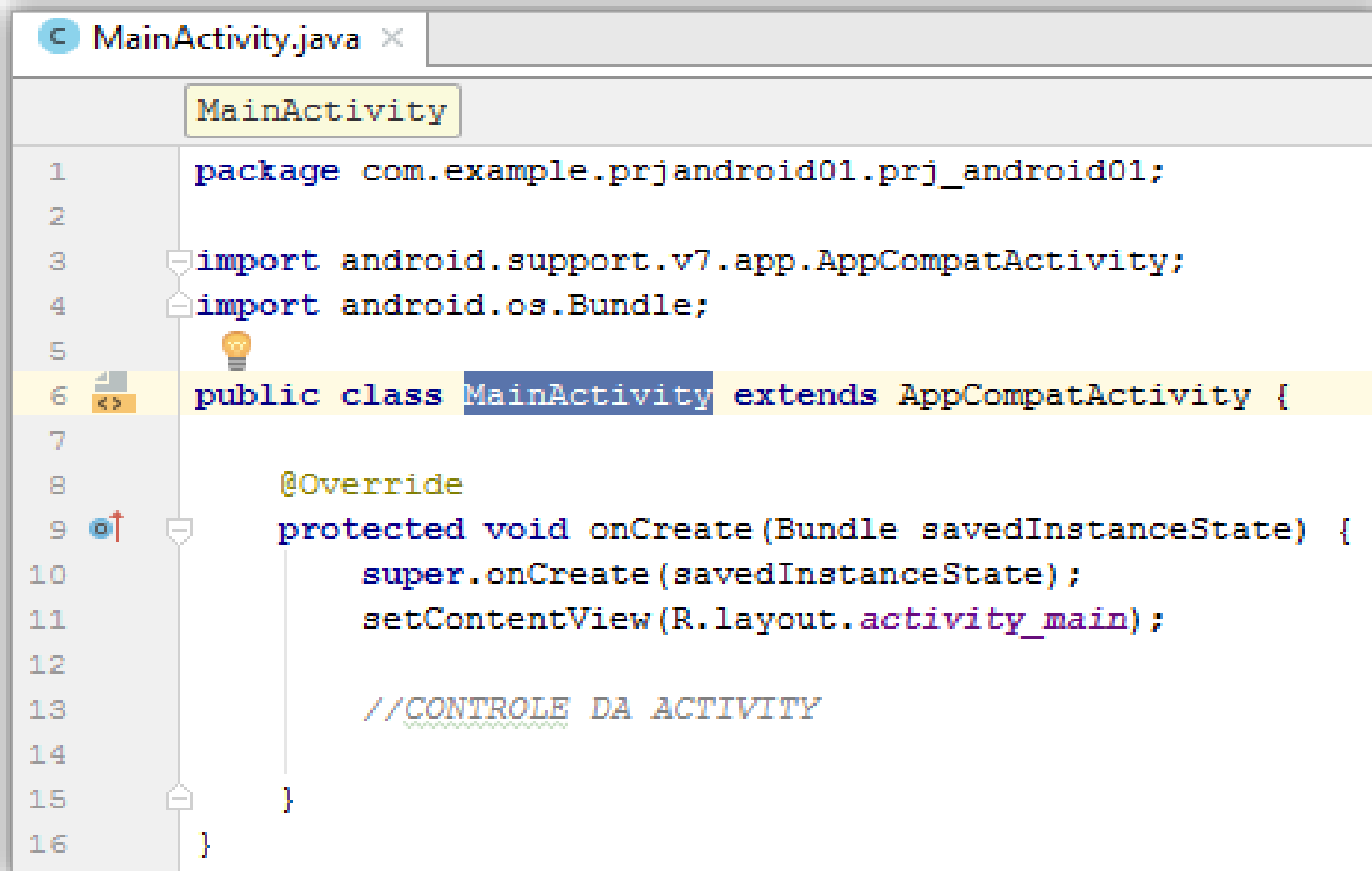


Activity_main.xml

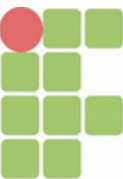
- Componente que representa a tela, na qual o usuário interage com a aplicação.



Activity.java

A screenshot of an IDE window titled 'MainActivity.java'. The code is for an Android Activity. It includes package and import statements, followed by a class definition that extends AppCompatActivity and overrides the onCreate method. The onCreate method calls super.onCreate and setContentView. There is a lightbulb icon above the class definition and a red arrow icon pointing to the onCreate method signature. The class name 'MainActivity' is highlighted in the class declaration line.

```
1 package com.example.prjandroid01.prj_android01;
2
3 import android.support.v7.app.AppCompatActivity;
4 import android.os.Bundle;
5
6 public class MainActivity extends AppCompatActivity {
7
8     @Override
9     protected void onCreate(Bundle savedInstanceState) {
10         super.onCreate(savedInstanceState);
11         setContentView(R.layout.activity_main);
12
13         //CONTROLE DA ACTIVITY
14
15     }
16 }
```

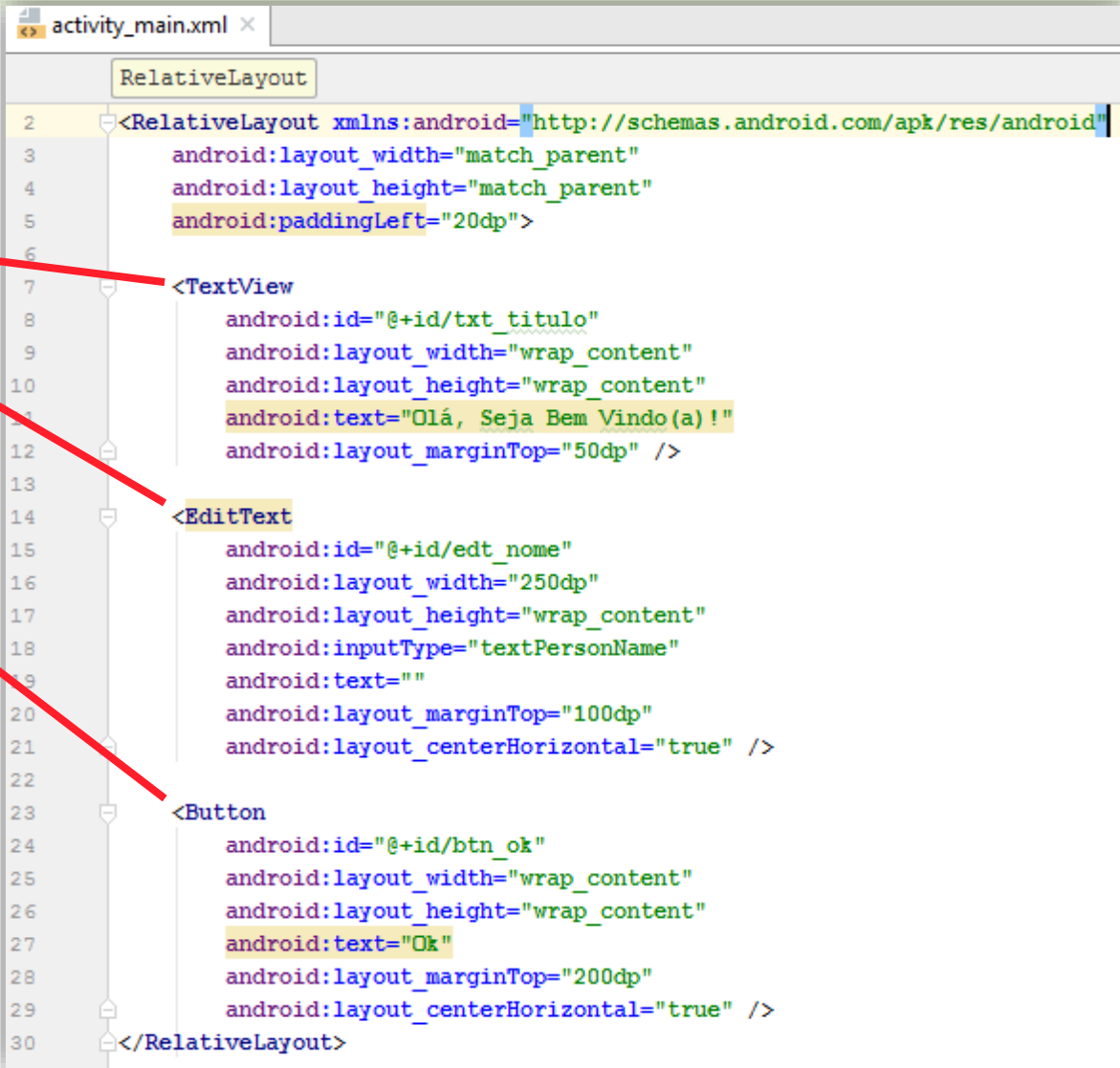
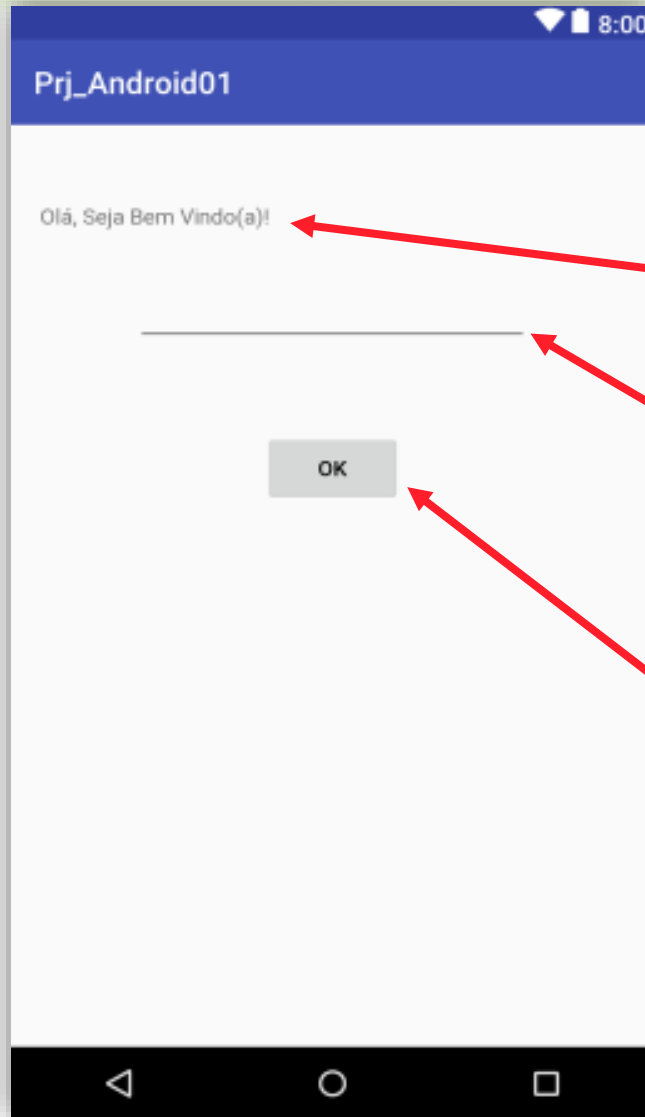


Roteiro



Modificando o Prj_Android01

Prj_Android01

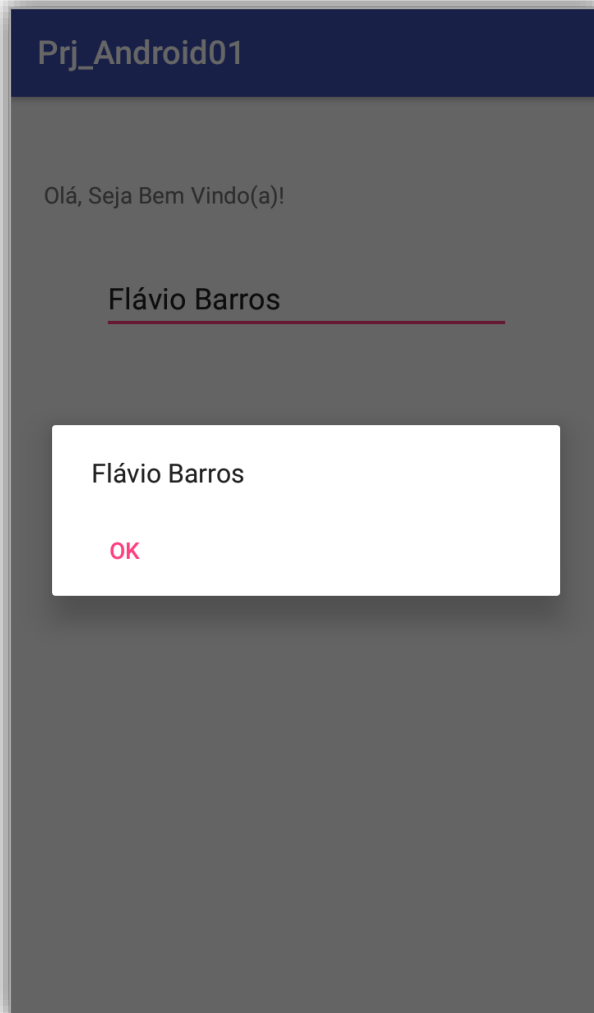


Prj_Android01

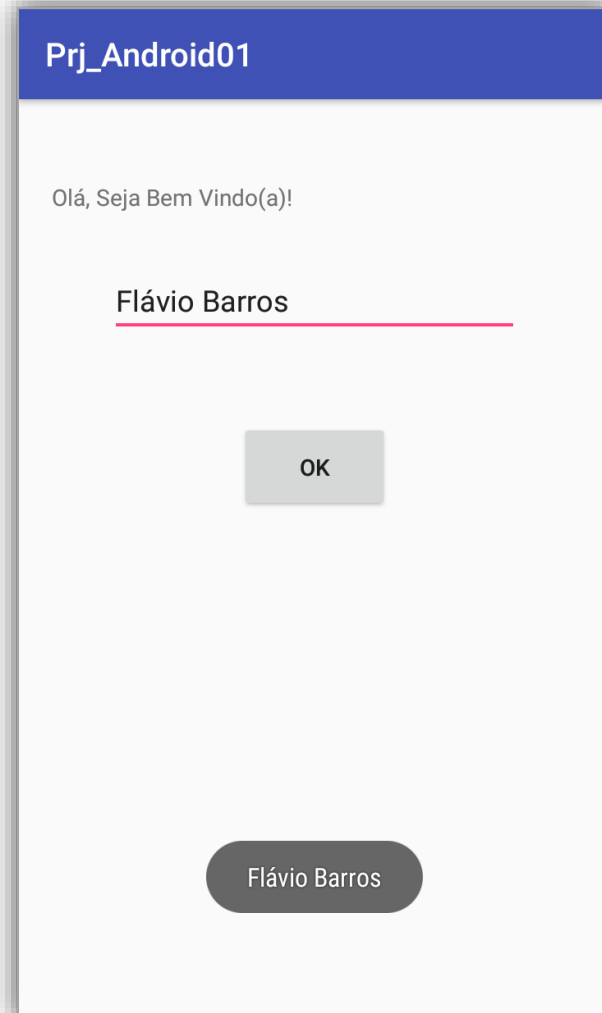
```
MainActivity.java x
MainActivity

3  import android.support.v7.app.AlertDialog;
4  import android.support.v7.app.AppCompatActivity;
5  import android.os.Bundle;
6  import android.view.View;
7  import android.widget.Button;
8  import android.widget.EditText;
9  import android.widget.Toast;
10
11 public class MainActivity extends AppCompatActivity {
12     private EditText edtNome;
13     private Button btnOk;
14     @Override
15     protected void onCreate(Bundle savedInstanceState) {
16         super.onCreate(savedInstanceState);
17         setContentView(R.layout.activity_main);
18         edtNome = (EditText) findViewById(R.id.edt_nome);
19         btnOk = (Button) findViewById(R.id.btn_ok);
20         btnOk.setOnClickListener(new View.OnClickListener() {
21             @Override
22             public void onClick(View view) {
23                 AlertDialog.Builder res = new AlertDialog.Builder(context: MainActivity.this);
24                 res.setMessage(edtNome.getText().toString());
25                 res.setNeutralButton(text: "Ok", listener: null);
26                 res.show();
27                 //Toast toast = Toast.makeText(MainActivity.this, edtNome.getText().toString(), Toast.LENGTH_LONG);
28                 //toast.show();
29             }
30         });
31     }
32 }
```

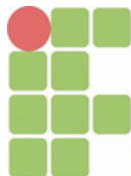
Prj_Android01



AlertDialog.Builder



Toast



Roteiro



Praticando

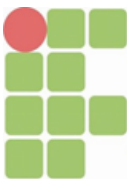
Praticando

Prj_Android_Extra01

- Desenvolver aplicativo Android que receba duas notas, calcule a média e mostre o resultado (ou seja, a média do aluno).

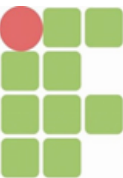
Prj_Android_Extra02

- Uma Empresa paga a seu vendedor um salário fixo de R\$ 800,00, mais uma comissão de 15% pelo valor de vendas realizada no mês. Desenvolver aplicativo Android que leia o valor de vendas e determine o salário total do funcionário.



Roteiro

Referências



Referências

- DEITEL, P.; DEITEL, H.; DEITEL, A. **Android 6 - Para Programadores - Uma Abordagem Baseada em Aplicativos**. 2.ed. Bookman, 2015.
- CORDEIRO, Fillipe. **Começando com Android Studio: o guia passo a passo**. 1.ed., 1998.
- MONTEIRO, J. **Google Android - Crie Aplicações para Celulares e Tablets**. Editora Casa do Código, 2013.
- MAIA, Luís F. **Programação para dispositivos móveis**. IFMA/ Caxias. 2017.
- LOPES, Marcos. **Sistemas de Computação Móvel**. UNITRI.
- Site oficial “**Android Developer**”. Disponível em: [<http://developer.android.com/index.html>](http://developer.android.com/index.html).

