

# Apresentação de um Processo Criativo de Desenvolvimento de uma App Android

## Realização de Dinâmica Hands-On para Construção de uma App Android

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### **Eduardo Manuel de Freitas Jorge**

Doutor em Difusão do Conhecimento no pela no projeto de pesquisa Mobi (Modelo de Ontologia baseado em Instâncias). É, também, mestre em Ciência da Computação pela UFPB (Universidade Federal da Paraíba) e certificado PMP (Project Management Professional).

Sua atuação principal é como coordenador de projetos de Pesquisa e Desenvolvimento no SENAI/CIMATE na Área de Desenvolvimento de Software.

A sua linha de pesquisa principal é em projetos inovadores nas seguintes áreas: dispositivos móveis com o enfoque em computação sensível ao contexto, BI (Business intelligence) e Big Data.

Por fim, tem 17 anos de experiência acadêmica como professor da UNEB e SENAI/CIMATE nas disciplinas voltadas para os seguintes conteúdos: Mobile, Modelagem Conceitual, Linguagem de Programação Orientada a Objetos, Banco de Dados e Projeto Avançado de Sistemas.

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#### **OFICINA A** **JAVA PARA DISPOSITIVOS MÓVEIS**

*Apresentação de um Processo Criativo de Desenvolvimento de uma App Android e Realização de Dinâmica Hands-On para Construção de uma App Android.*





CONGRESSO  
**SUCESU 2014**  
CONGRESSO DE INFORMÁTICA E TELECOMUNICAÇÕES

O Encontro do Setor de Tecnologia  
da Informação e Comunicação na Bahia  
**Tecnologia, Ideias e Oportunidades**

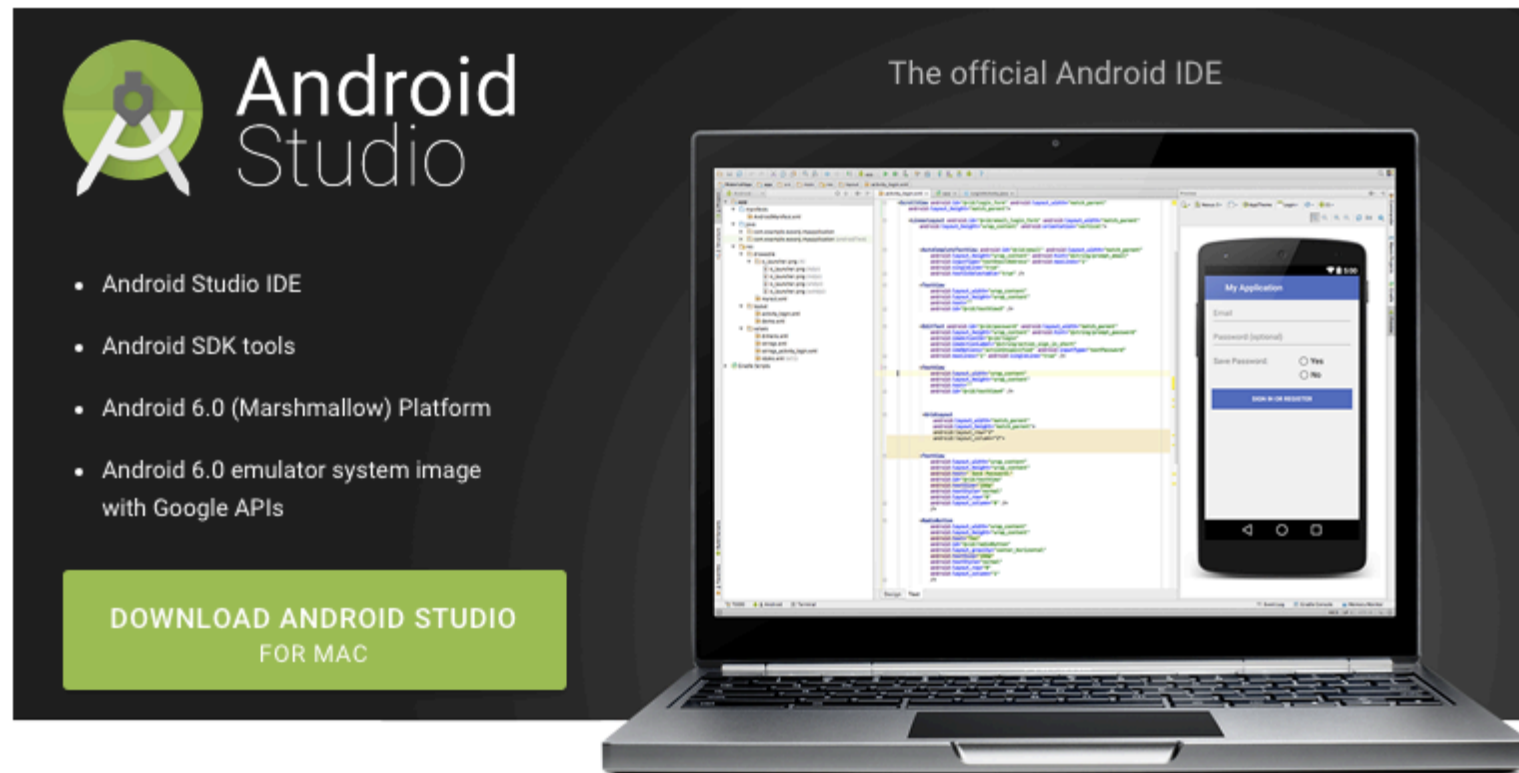


# Realização de Dinâmica Hands-On para Construção de uma App Android

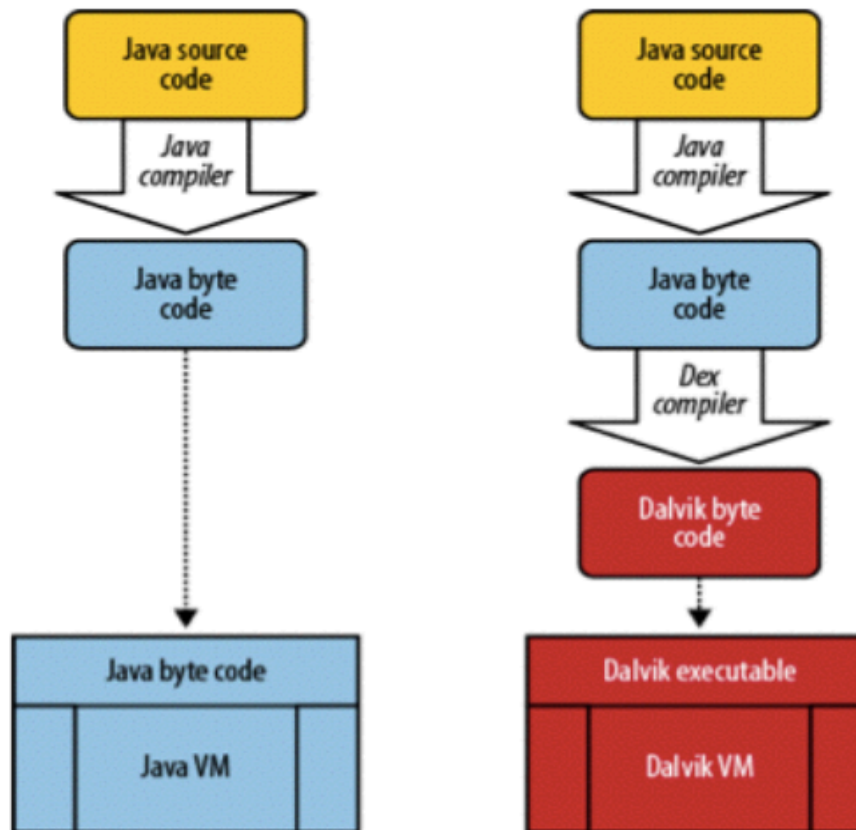
Parte II

# Portal para Obter Ambiente de Desenvolvimento

- <http://developer.android.com/sdk/index.html>
- Android Studio

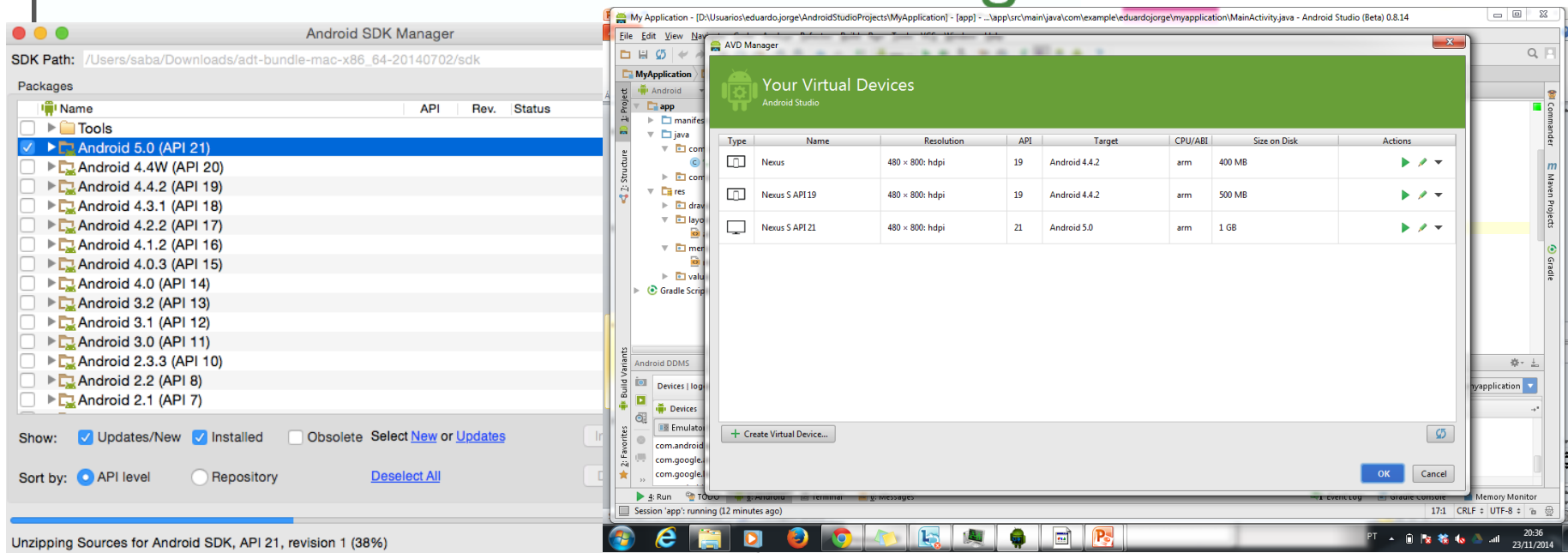


# Processo de Compilação Android



▼ AloMundo	<code>src/</code>
▶ src	(código fonte: .java)
▶ gen [Generated Java Files]	
▶ Android 4.4	<code>gen/</code>
▶ Android Private Libraries	(código gerado: R.java )
▶ assets	
▶ bin	<code>bin/</code>
▶ libs	(bytecodes: .dex)
▶ res	
AndroidManifest.xml	<code>libs/</code>
ic_launcher-web.png	(bibliotecas)
proguard-project.txt	
project.properties	<code>res/</code>
	(recursos: layouts, strigs, ícones ...)
	<code>assets/</code>
	(outros recursos: arquivos em geral)

**ESTRUTURA**

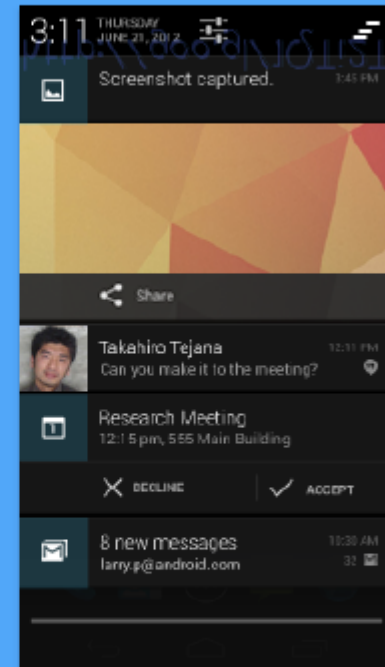


# Importante!

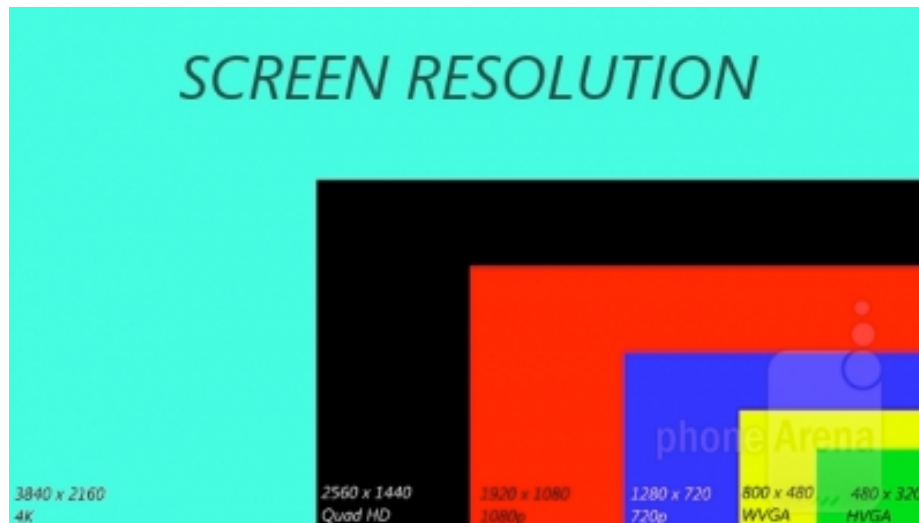
## XML

## Activity

```
public class OlaMundo extends Activity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_ola_mundo);  
    }  
}
```







- 4K Ultra HD:  $3840 \times 2160 = 8294400$  (8.29 milhões de pixels)
- **Quad HD:  $2560 \times 1440 = 3686400$  (3.69 milhões de pixels, 78% mais que 1080p)**
- 1080p Full HD:  $1920 \times 1080 = 2073600$  (2.07 milhões de pixels)
- 720p HD:  $1280 \times 720 = 921600$  (0.92 milhões de pixels)
- WVGA:  $800 \times 480 = 384000$  (0.38 milhões de pixels)
- HVGA:  $480 \times 320 = 153600$  (0.23 milhões de pixels)

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
```

```
    <string name="app_name">Alo Mundo</string>
    <string name="action_settings">Settings</string>
    <string name="hello_world">Hello world!</string>
```

```
</resources>
```

strings.xml

```
/* AUTO-GENERATED FILE. DO NOT MODIFY.*/  
public final class R {  
    public static final class attr {  
    }  
    public static final class dimen {  
        public static final int activity_horizontal_margin=0x7f040000;  
        public static final int activity_vertical_margin=0x7f040001;  
    }  
    public static final class layout {  
        public static final int activity_main=0x7f030000;  
    }  
    ...  
}
```

R.java

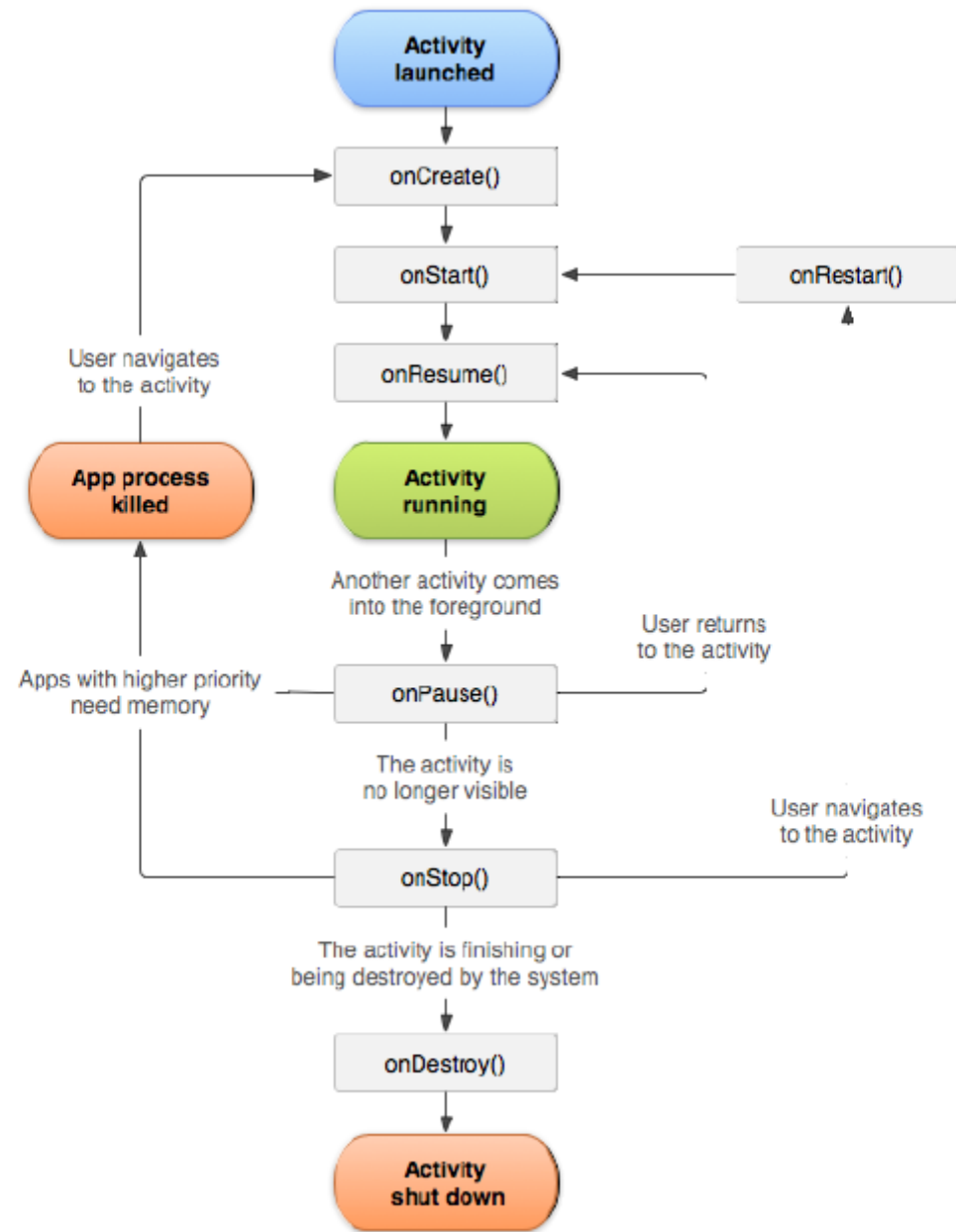
# AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest ...>
    ...
    <application ... >
        <activity
            android:name="br.com.mariojp.olamundo.OlaMundoActivity"
            android:label="@string/app_name" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

# Primeira App

- Configurando o Emulador;
- Criando um projeto;

```
public class OlaMundoActivity extends Activity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_ola_mundo);  
    }  
  
}
```



Log.[nivel]("TAG", "MENSAGEM");

Log.v (Verbose)  
Log.d (Debug)  
Log.i (Info)  
Log.w (Warning)  
Log.e (Error)  
Log.wtf (...)

**LOG**

loc Declaration Console LogCat

Search for messages. Accepts java regexes. Prefix with pid:, app:, tag: or text: to limit

verbose

Level	Time	PID	TID	Application	Tag	Text
I	01-20 09:50:26.586	1273	1273	br.com.example.alomundo	TAG	TEXT0

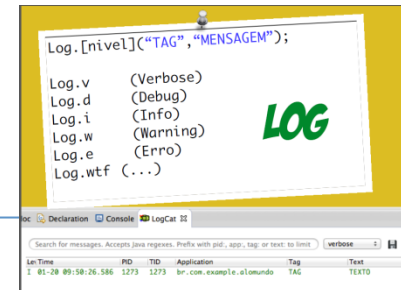
# Res/Menu/menu\_ola\_mundo.xml

```
<menu xmlns:android="http://schemas.android.com/apk/res/android"
      xmlns:tools="http://schemas.android.com/tools"
      tools:context="com.example.eduardojorge.myapplication.OlaMundoActivity">
    <item android:id="@+id/action_settings" android:title="@string/action_settings"
          android:orderInCategory="100" android:showAsAction="never" />
</menu>
```

```
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.menu_ola_mundo, menu);
    return true;
}
```



# Log



@Override

```
public boolean onOptionsItemSelected(MenuItem item) {  
    // Handle action bar item clicks here. The action bar will  
    // automatically handle clicks on the Home/Up button, so long  
    // as you specify a parent activity in AndroidManifest.xml.  
    int id = item.getItemId();  
  
    //noinspection SimplifiableIfStatement  
    if (id == R.id.action_settings) {  
        Log.i("TAG", "Settings");  
        return true;  
    }  
  
    return super.onOptionsItemSelected(item);  
}
```

# Res/layout: activity\_ola\_mundo.xml

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
        android:layout_height="match_parent" android:paddingLeft="@dimen/
activity_horizontal_margin"
        android:paddingRight="@dimen/activity_horizontal_margin"
        android:paddingTop="@dimen/activity_vertical_margin"
        android:paddingBottom="@dimen/activity_vertical_margin"

    tools:context="com.example.eduardojorge.myapplication.OlaMundoActivity">

    <TextView android:text="@string/hello_world"
    android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```

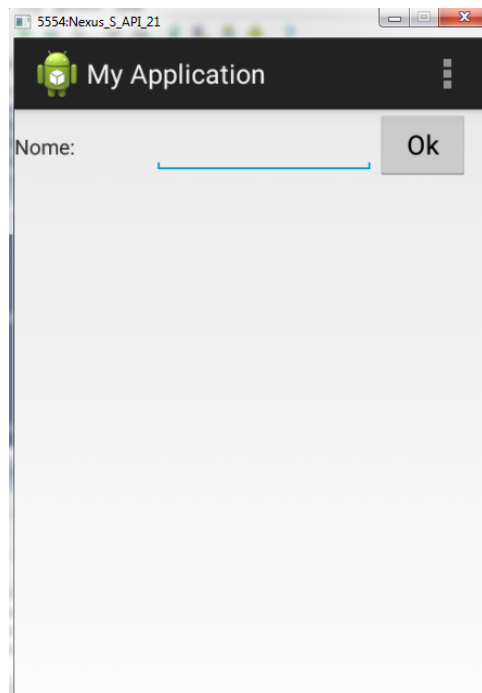
# Layout no Android

- LinearLayout - apresenta um layout linear horizontal ou vertical;
- RelativeLayout apresenta um layout relativo poderoso em que podemos fazer um melhor posicionamento dos elementos;
- GridLayout apresenta um layout em tabela;
- View's (TextView, button, etc)
  - android:layout\_width para a largura e android:layout\_height para a altura
  - px - em Pixels, não é recomendado, pois existem muitos dispositivos de diferentes tamanhos e em pixels a experiência do usuário pode não ser a mesma.
  - dp - em Density Pixels, é o que calcula o espaço mediante o tamanho do dispositivo, ou seja se definimos um TextView de 20dp, num dispositivo small ele apresentara um numero de pixels menor que num dispositivo large.
  - wrap\_content - Ocupa o espaço mediante o seu conteúdo(Ex: uma ImageView que recebe imagens de diferentes tamanhos e se adapta a cada uma delas).
  - match\_parent - Ocupa o espaço disponível no screen.

Fonte <http://tutsandroid.weebly.com/tutorial-3---desenhando-e-entendendo-layout.html#/>

# Atividade I

- Crie um novo layout (LinearLayout);
- Coloque um TextView, EditText e um Button no Layout;
- Vincule na Activity o novo layout;



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

    <TextView
        android:layout_width="93dp"
        android:layout_height="wrap_content"
        android:text="Nome:"
        android:id="@+id/textView2" />

    <EditText
        android:layout_width="150dp"
        android:layout_height="wrap_content"
        android:id="@+id/editText"
        />

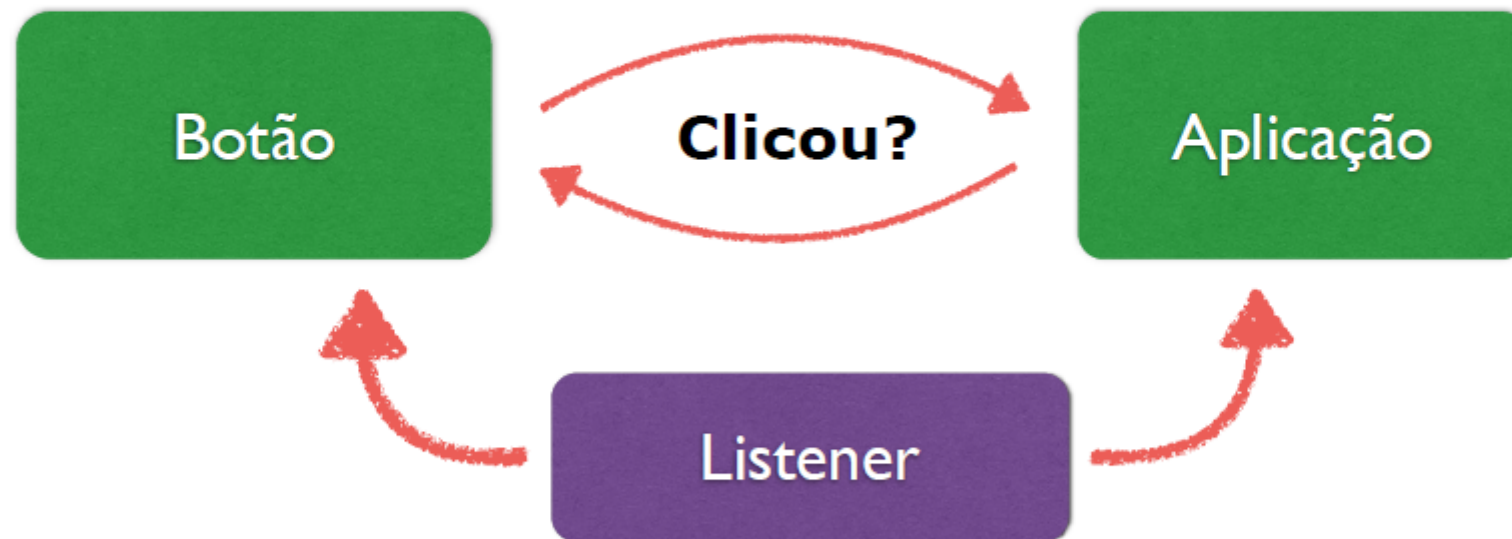
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Ok"
        android:id="@+id/button2"

        />
</LinearLayout>
```

# ***FINDBYID***

```
[Tipo] var = ([Tipo]) findViewById(R.id.[id]);  
var.metodo();
```

# Ação do Botão



# FindViewById / Listener

```
@Override
protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_ola_mundo1);
    Button b = (Button) findViewById(R.id.button2);
    b.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Log.i("TAG", "Botao Clicado");
        }
    });
}
```

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

    <TextView
        android:layout_width="93dp"
        android:layout_height="wrap_content"
        android:text="Nome:"
        android:id="@+id/textView2" />

    <EditText
        android:layout_width="150dp"
        android:layout_height="wrap_content"
        android:id="@+id/editText"
        />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Ok"
        android:id="@+id/button2"

    />
</LinearLayout>
```

# Atividade II

- Colocar no EditText o seu nome quando clicar no botão

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

    <TextView
        android:layout_width="93dp"
        android:layout_height="wrap_content"
        android:text="Nome:"
        android:id="@+id/textView2" />

    <EditText
        android:layout_width="150dp"
        android:layout_height="wrap_content"
        android:id="@+id/editText"
        />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Ok"
        android:id="@+id/button2"

        />
</LinearLayout>
```



# Resposta: Atividade II

```
public class OlaMundoActivity extends Activity {  
    protected EditText editText;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_ola_mundo1);  
        Button b = (Button) findViewById(R.id.button2);  
        this.editText = (EditText) findViewById(R.id.editText);  
        b.setOnClickListener(new View.OnClickListener() {  
            @Override  
            public void onClick(View v) {  
                Log.i("TAG", "Botao Clicado");  
                editText.setText("Eduardo M F Jorge");  
            }  
        });  
    }  
}
```

# TOAST

```
Toast.makeText(this, "TEXT0", Toast.LENGTH_LONG).show();
```

```
Toast.LENGTH_LONG
```

```
Toast.LENGTH_SHORT
```

# Toast

```
public class OlaMundoActivity extends Activity {
    protected EditText editText;
    @Override
    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_ola_mundo1);
        Button b = (Button) findViewById(R.id.button2);
        this.editText = (EditText) findViewById(R.id.editText);
        Toast.makeText(this, "TEXT0", Toast.LENGTH_LONG).show();
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Log.i("TAG", "Botao Clicado");
                editText.setText("Eduardo M F Jorge");
            }
        });
    }
}
```

# Atividade III

- Para a activity anterior lance um tost no evento do botão.

# Resposta Atividade III

```
protected void onCreate(Bundle savedInstanceState) {  
  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_ola_mundo1);  
    Button b = (Button) findViewById(R.id.button2);  
    this.editText = (EditText) findViewById(R.id.editText);  
  
    b.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View v) {  
            Log.i("TAG", "Botao Clicado");  
            editText.setText("Eduardo M F Jorge");  
            Toast.makeText(OlaMundoActivity.this, "TEXT0", Toast.LENGTH_LONG).show();  
        }  
    });  
  
}
```

# Projeto Faculdade

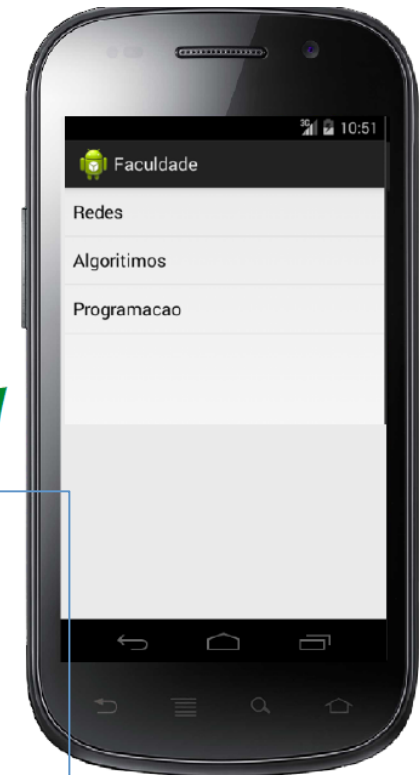
- Crie um novo projeto Faculdade;
- Crie um Layout: LinearLayout com um ListView;

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

    <ListView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/listView" />
</LinearLayout>
```

# Projeto Faculdade

***RUN AS..  
ANDROID APPLICATION***



```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.lista_disciplinas_layout);

    String[] disciplinas = {"Redes", "Algoritmos", "Programacao"};

    int layout = android.R.layout.simple_list_item_1;

    ArrayAdapter<String> adapter =
        new ArrayAdapter<String>(this,layout, disciplinas);

    ListView lista = (ListView) findViewById(R.id.listView);

    lista.setAdapter(adapter);
}
```

# Projeto Faculdade

- Criando um evento de click no item da lista

```
public class ListaDisciplinasActivity extends Activity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
  
        ....  
        lista.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
            public void onItemClick(AdapterView<?> adapter, View view,  
                                    int posicao, long id) {  
                Toast.makeText(ListaDisciplinasActivity.this, "Clicou " + posicao,  
                               Toast.LENGTH_SHORT).show();  
            }  
        });  
    }  
}
```



# Projeto Faculdade

- Criando um evento de Log click no item da lista e obtendo o seu descritivo;

```
public class ListaDisciplinasActivity extends Activity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
  
        .....  
        lista.setOnItemLongClickListener(new AdapterView.OnItemLongClickListener() {  
            public boolean onItemLongClick(AdapterView<?> adapter,  
                                           View view, int posicao, long id) {  
                Toast.makeText( ListaDisciplinasActivity.this,  
                               adapter.getItemAtPosition(posicao).toString(),  
                               Toast.LENGTH_SHORT).show();  
                return false;  
            }  
        });  
    }  
}
```

# Projeto Faculdade

- Crie uma nova Activity
  - DisciplinaActivity
  - disciplina\_layout.xml

# Projeto Faculdade (Formulário disciplina\_layout.xml)

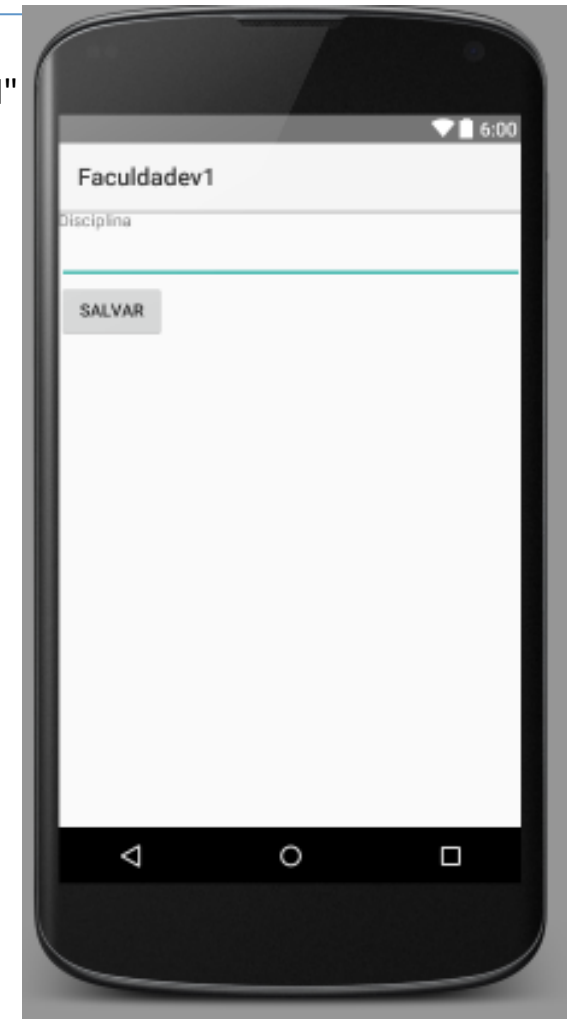
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Disciplina" />

    <EditText android:id="@+id/disciplina"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10" >
        <requestFocus />
    </EditText>

    <Button
        android:id="@+id/botao"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Salvar" />

</LinearLayout>
```



# Projeto Faculdade

- Crie um menu para adicionar novas disciplinas

menu\_lista\_disciplinas.xml

```
<menu xmlns:android="http://schemas.android.com/apk/res/android"
      xmlns:tools="http://schemas.android.com/tools" tools:context=".ListaDisciplinasActivity">
    <item android:id="@+id/action_new" android:title="@string/action_new"
          android:orderInCategory="100" android:showAsAction="never" />
    <item android:id="@+id/action_settings" android:title="@string/action_settings"
          android:orderInCategory="100" android:showAsAction="never" />
</menu>
```

string.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">Faculdade</string>
    <string name="hello_world">Hello world!</string>
    <string name="action_settings">Settings</string>
    <string name="action_new">Nova Disciplina</string>
    <string name="title_activity_disciplina">DisciplinaActivity</string>
</resources>
```

# Projeto Faculdade (Chamando a Atctivity de Disciplina)

```
@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();

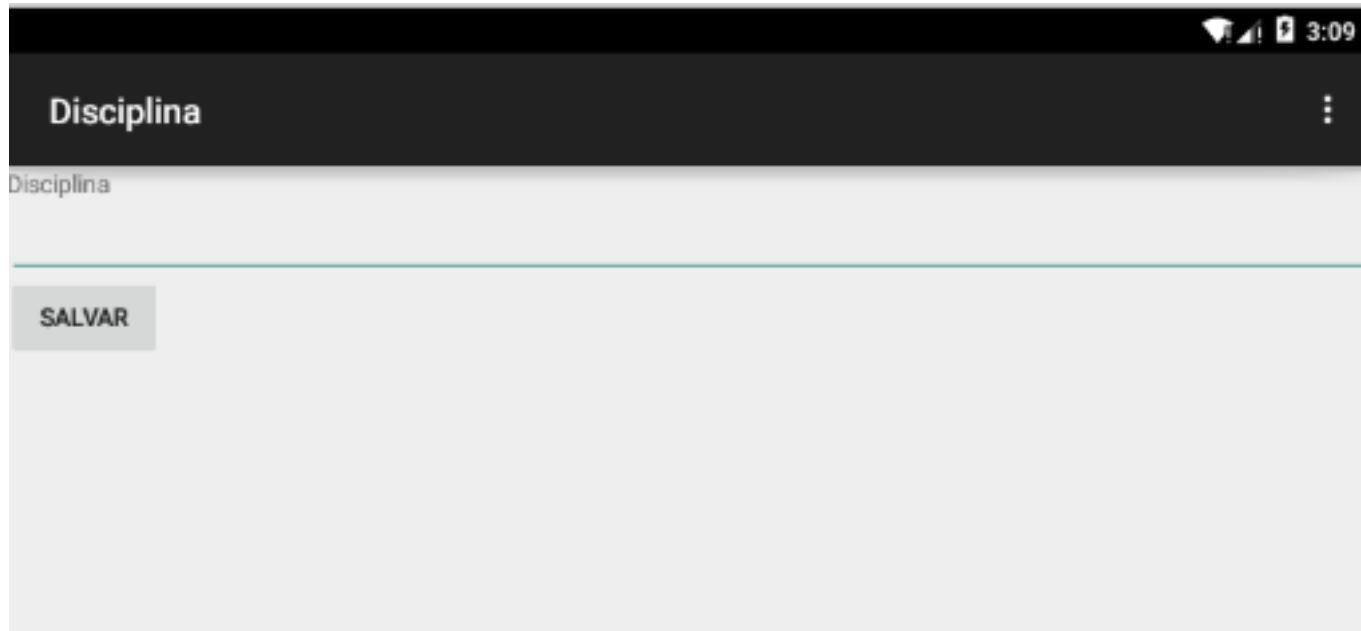
    //noinspection SimplifiableIfStatement
    if (id == R.id.action_settings) {
        return true;
    }
    if (id == R.id.action_new) {
        Intent intent = new Intent(this, DisciplinaActivity.class);
        startActivity(intent);
        return true;
    }
    return super.onOptionsItemSelected(item);
}
```

# Projeto Faculdade: Voltando para a Activity Principal

```
public class DisciplinaActivity extends Activity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.disciplina_layout);  
        Button button = (Button) findViewById(R.id.botao);  
        button.setOnClickListener(new View.OnClickListener() {  
            @Override  
            public void onClick(View v) {  
                finish();  
            }  
        });  
    }  
}
```

```
<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://  
schemas.android.com/apk/res/android"  
    android:orientation="vertical"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
    <TextView  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Disciplina" />  
    <EditText android:id="@+id/disciplina"  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:ems="10" >  
        <requestFocus />  
    </EditText>  
    <Button  
        android:id="@+id/botao"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Salvar" />  
</LinearLayout>
```

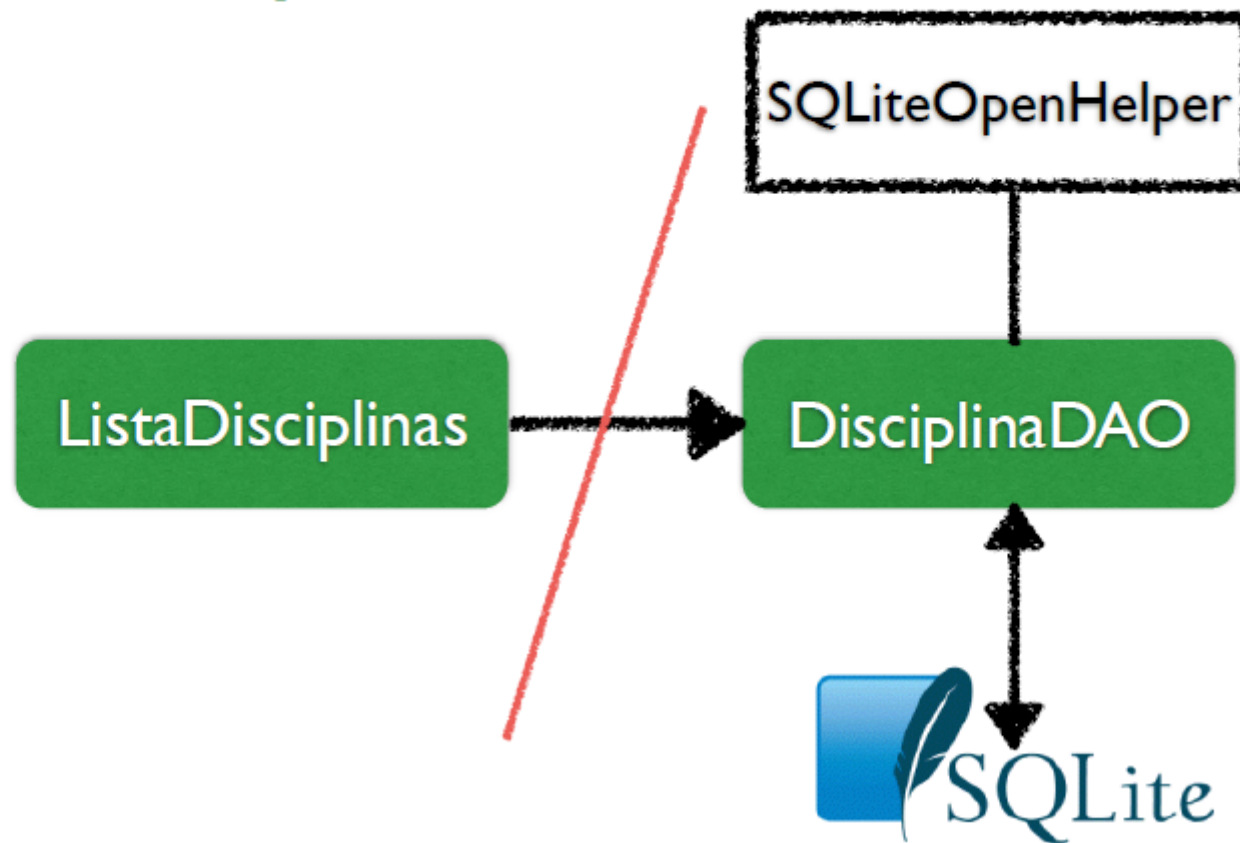
# Resultado da Chamada da DisciplinaActivity



**MONTANDO A BASE DE DADOS PARA  
INCLUIR, ALTERAR E EXCLUIR  
DISCIPLINAS**



Vamos pensar um  
pouco...



# DisciplinaValue

- implements java.io.Serializable
- private Long Id;
- private String disciplina
- Get/Set
- public String toString()

# DisciplinaDAO: Criação DDL

```
public class DisciplinaDAO extends SQLiteOpenHelper {

    private static final String DATABASE = "BancoDisciplinas";
    private static final int VERSAO = 1;

    public DisciplinaDAO(Context context) {
        super(context, DATABASE, null, VERSAO);
    }

    public void onCreate(SQLiteDatabase db) {
        String ddl = "CREATE TABLE Disciplina (id INTEGER PRIMARY KEY,"
            + " disciplina TEXT UNIQUE NOT NULL)";
        db.execSQL(ddl);
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int velha, int nova) {
        String ddl = "DROP TABLE IF EXISTS Disciplina";
        db.execSQL(ddl);
        onCreate(db);
    }
}
```

# DisciplinaDAO: Criação DML

```
public void salvar(DisciplinaValue disciplinaValue) {
    ContentValues values = new ContentValues();
    values.put("disciplina", disciplinaValue.getDisciplina());

    getWritableDatabase().insert("Disciplina", null, values );

}

public List getLista(){
    List<DisciplinaValue> disciplinas = new LinkedList<DisciplinaValue>();

    String query = "SELECT * FROM " + "Disciplina order by disciplina";
    SQLiteDatabase db = this.getWritableDatabase();
    Cursor cursor = db.rawQuery(query, null);

    DisciplinaValue disciplina = null;
    if (cursor.moveToFirst()) {
        do {
            disciplina = new DisciplinaValue();
            disciplina.setId(Long.parseLong(cursor.getString(0)));
            disciplina.setDisciplina(cursor.getString(1));
            disciplinas.add(disciplina);
        } while (cursor.moveToNext());
    }
    return disciplinas;
}
```

# Projeto Faculdade:

## ListaDisciplinasActivity

```
public class ListaDisciplinasActivity extends Activity {  
    protected ListView lista;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.lista_disciplinas_layout);  
  
        int layout = android.R.layout.simple_list_item_1;  
        DisciplinaDAO dao = new DisciplinaDAO(this);  
        ArrayList<DisciplinaValue> disciplinas= (ArrayList<DisciplinaValue>) new ArrayList(dao.getList());  
        dao.close();  
        ArrayAdapter<DisciplinaValue> adapter =  
            new ArrayAdapter<DisciplinaValue>(this,layout, disciplinas);  
    }  
}
```

# Projeto Faculdade:

## ListaDisciplinasActivity

```
protected void onResume() {  
    super.onResume();  
    DisciplinaDAO dao = new DisciplinaDAO(this);  
    ArrayList<DisciplinaValue> disciplinas= new ArrayList(dao.getLista());  
    dao.close();  
    int layout = android.R.layout.simple_list_item_1;  
  
    ArrayAdapter<DisciplinaValue> adapter =  
        new ArrayAdapter<DisciplinaValue>(this,layout, disciplinas);  
  
    lista.setAdapter(adapter);  
}
```

# Projeto Faculdade (funções de Apaga e Editar)

menu\_lista\_disciplinas.xml

```
<menu xmlns:android="http://schemas.android.com/apk/res/android"
      xmlns:tools="http://schemas.android.com/tools" tools:context=".ListaDisciplinasActivity">
    <item android:id="@+id/action_new" android:title="@string/action_new"
          android:orderInCategory="100" android:showAsAction="never" />
    <item android:id="@+id/action_update" android:title="@string/action_update"
          android:orderInCategory="100" android:showAsAction="never" />
    <item android:id="@+id/action_delete" android:title="@string/action_delete"
          android:orderInCategory="100" android:showAsAction="never" />
</menu>
```

string.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">Faculdade</string>
    <string name="hello_world">Hello world!</string>
    <string name="action_settings">Settings</string>
    <string name="action_new">Nova</string>
    <string name="action_update">Editar</string>
    <string name="action_delete">Apagar</string>
    <string name="title_activity_disciplina">DisciplinaActivity</string>
</resources>
```

# DisciplinaDAO: Criação do Método para apagar a disciplina

```
public void deletar(DisciplinaValue disciplinaValue) {  
    String[] args = { disciplinaValue.getId().toString() };  
    getWritableDatabase().delete("Disciplina", "id=?", args);  
}
```



# DisciplinaDAO: Criação do Método para alterar a disciplina

```
public void alterar(DisciplinaValue disciplina) {  
    ContentValues values = new ContentValues();  
    values.put("disciplina", disciplina.getDisciplina());  
  
    getWritableDatabase().update("Disciplina", values,  
        "id=?", new String[]{disciplina.getId().toString()});  
}
```

**CRIANDO UM MENU FLUTUANTE E  
UMA LISTA COM DADOS DO BANCO**

# ListaDisciplinasActivity

```
public class ListaDisciplinasActivity extends Activity {  
    protected ListView lista;  
    protected DisciplinaValue disciplinaValue;  
    protected ArrayAdapter<DisciplinaValue> adapter;
```

# ListaDisciplinasActivity

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.lista_disciplinas_layout);  
  
    int layout = android.R.layout.simple_list_item_1;  
    DisciplinaDAO dao = new DisciplinaDAO(this);  
  
    ArrayList<DisciplinaValue> disciplinas= (ArrayList<DisciplinaValue>) new  
    ArrayList(dao.getLista());  
  
    dao.close();  
    adapter =  
        new ArrayAdapter<DisciplinaValue>(this,layout, disciplinas);  
  
    lista = (ListView) findViewById(R.id.listView);  
  
    lista.setAdapter(adapter);  
  
    lista.setOnCreateContextMenuListener(this);  
  
    registerForContextMenu(lista);  
  
}
```

# Criando um Disciplina de Teste

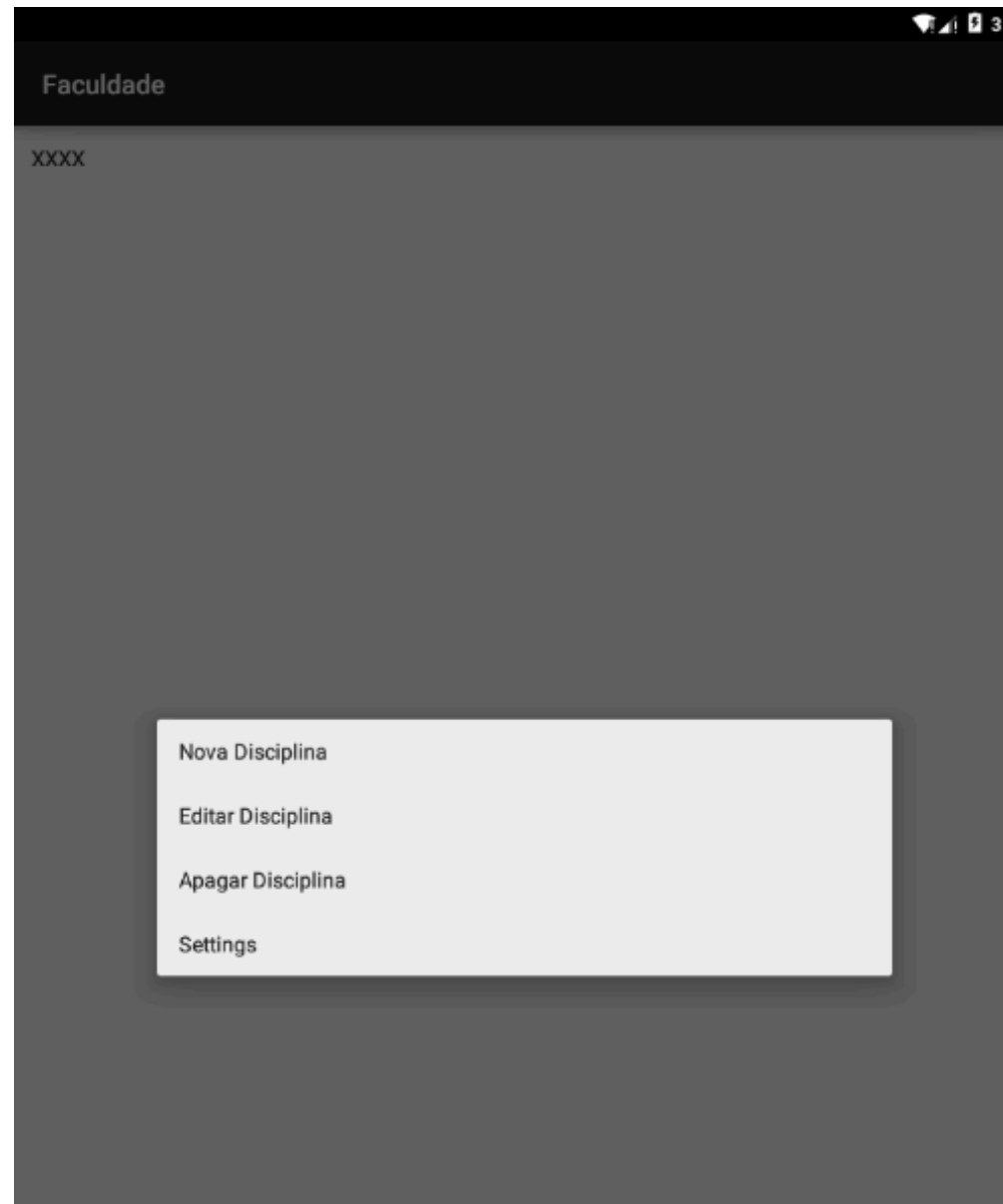
```
DisciplinaDAO dao = new DisciplinaDAO(this);
```

```
DisciplinaValue disciplinaValue = new DisciplinaValue();  
disciplinaValue.setId((new Long("1")).longValue());  
disciplinaValue.setDisciplina("XXXX");  
dao.salvar(disciplinaValue);
```

# ListaDisciplinasActivity

```
public void onCreateContextMenu(ContextMenu menu, View  
v,ContextMenu.ContextMenuInfo menuInfo) {  
  
    super.onCreateContextMenu(menu, v, menuInfo);  
    MenuInflater inflater = getMenuInflater();  
  
    inflater.inflate(R.menu.menu_lista_disciplinas, menu);  
}
```

# Resultado do Menu de Contexto



# ListaDisciplinasActivity

```
protected void onResume() {  
    super.onResume();  
    DisciplinaDAO dao = new DisciplinaDAO(this);  
    ArrayList<DisciplinaValue> disciplinas= new ArrayList(dao.getList());  
    dao.close();  
    int layout = android.R.layout.simple_list_item_1;  
  
    adapter =  
        new ArrayAdapter<DisciplinaValue>(this,layout, disciplinas);  
  
    lista.setAdapter(adapter);  
}
```



# ListaDisciplinasActivity

```
@Override
public boolean onCreateOptionsMenu(Menu menu) {

    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.menu_disciplina, menu);
    return true;
}
```

menu\_disciplina.xml

```
<menu xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    tools:context="com.example.eduardojorge.faculdade.DisciplinaActivity">
    <item android:id="@+id/action_new" android:title="@string/action_new"
        android:orderInCategory="100" android:showAsAction="never" />
</menu>
```

# ListaDisciplinasActivity

```
public boolean onContextItemSelected(final MenuItem item) {
    disciplinaValue= (DisciplinaValue)
this.adapter.getItem(((AdapterView.AdapterContextMenuInfo) item.getMenuInfo()).position);
    int id = item.getItemId();
    if (id == R.id.action_new) {
        Intent intent = new Intent(this, DisciplinaActivity.class);
        startActivity(intent);
        return true;
    }
    if (id == R.id.action_update) {
        Intent intent = new Intent(this, DisciplinaActivity.class);
        intent.putExtra("disciplinaSeleccionada", disciplinaValue);
        startActivity(intent);
        return true;
    }
    if (id == R.id.action_delete) {
        DisciplinaDAO dao = new DisciplinaDAO(ListaDisciplinasActivity.this);
        dao.deletar(disciplinaValue);
        dao.close();
        this.onResume();
        return true;
    }
    return true;
}
```

# ListaDisciplinasActivity

```
@Override
    public boolean onOptionsItemSelected(MenuItem item) {

        int id = item.getItemId();
        if (id == R.id.action_new) {
            Intent intent = new Intent(this, DisciplinaActivity.class);
            startActivity(intent);
            return true;
        }
        return super.onOptionsItemSelected(item);
    }
```

```
@Override
    protected void onActivityResult(int codigo,int resultado,Intent it){

        this.adapter.notifyDataSetChanged();

    }
```

# DisciplinaActivity

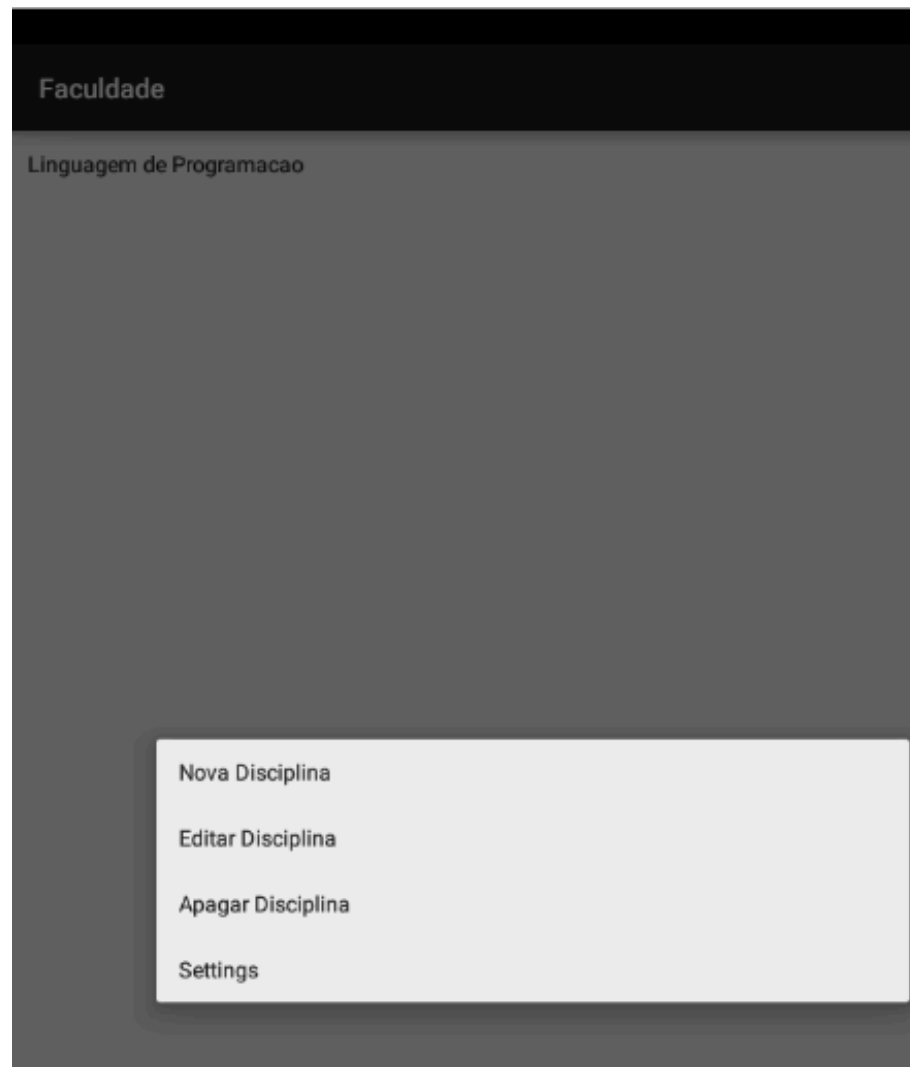
```
public class DisciplinaActivity extends Activity {  
    protected EditText editTextDisciplin;  
    protected DisciplinaValue disciplinaSelecionada;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.disciplina_layout);  
        Button button = (Button) findViewById(R.id.botao);  
  
        this.editTextDisciplin = (EditText) findViewById(R.id.disciplina);  
        this.editTextDisciplin.setText("teste1");  
        Intent intent = getIntent();  
  
        disciplinaSelecionada = (DisciplinaValue) intent.getSerializableExtra("disciplinaSelecionada");  
        if(disciplinaSelecionada!=null){  
            button.setText("Alterar");  
            editTextDisciplin.setText(disciplinaSelecionada.getDisciplina());  
        }  
    }  
}
```

....

# DisciplinaActivity (Salvar/Alterar)

```
button.setOnClickListener(new View.OnClickListener() {  
  
    @Override  
    public void onClick(View v) {  
  
        DisciplinaDAO dao = new DisciplinaDAO(DisciplinaActivity.this);  
        if (disciplinaSelecionada==null) {  
            DisciplinaValue disciplinaValue = new DisciplinaValue();  
            disciplinaValue.setDisciplina(editTextDisciplin.getText().toString());  
            dao.salvar(disciplinaValue);  
        }else{  
            disciplinaSelecionada.setDisciplina(editTextDisciplin.getText().toString());  
            dao.alterar(disciplinaSelecionada);  
  
        }  
        finish();  
    }  
});  
}
```

# Projeto Faculdade



# Consumindo as Disciplinas de um Json (Activity SplashScreen)

```
public class SplashScreen extends Activity {  
  
    // Splash screen timer  
    private static int SPLASH_TIME_OUT = 3000;  
  
    private TextView textView=null;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_splash_screen);  
  
        //ActionBar actionBar = this.getActionBar();  
        //actionBar.hide();  
        textView = (TextView) this.findViewById(R.id.textView);  
        textView.setText("Aguarde Carregando.....");  
    }  
}
```

# Consumindo as Disciplinas de um Json (Activity SplashScreen)

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    ....
    new Handler().postDelayed(new Runnable() {

        @Override
        public void run() {
            new JSONParse().execute();

        }
    }, SPLASH_TIME_OUT);
}
```



# Consumindo as Disciplinas de um Json (Activity SplashScreen)

```
public class JSONParse extends AsyncTask<String, String, JSONObject> {  
    private ProgressDialog pDialog;  
  
    @Override  
    protected void onPreExecute() {  
        super.onPreExecute();  
  
        pDialog= new ProgressDialog(SplashScreen.this);  
  
        pDialog.setMessage("Obtendo Dados");  
        pDialog.setIndeterminate(false);  
        pDialog.setCancelable(true);  
        pDialog.show();  
  
    }
```

# Consumindo as Disciplinas de um Json (Activity SplashScreen)

```
public class JSONParse extends AsyncTask<String, String, JSONObject> {  
    @Override  
    protected JSONObject doInBackground(String... args) {  
        JSONObject json = null;  
        DisciplinaDAO disciplinaDAO = new DisciplinaDAO(SplashScreen.this);  
        disciplinaDAO.dropAll();  
        JSONArray link = null;  
        json= Json();  
        int count=0;  
        try {  
            // Getting JSON Array  
            link = json.getJSONArray("Lista");  
            for (int i = 0; i < link.length(); i++) {  
                JSONObject c = link.getJSONObject(i);  
                DisciplinaValue disciplinaValue = new DisciplinaValue();  
                disciplinaValue.setDisciplina(c.getString("disciplina"));  
                disciplinaDAO.salvar(disciplinaValue);  
                disciplinaDAO.close();  
            }  
        } catch (Exception e){  
            e.printStackTrace();  
        }  
        return json;  
    }  
}
```

# Consumindo as Disciplinas de um Json (Activity SplashScreen)

```
public class JSONParse extends AsyncTask<String, String, JSONObject> {  
  
    @Override  
    protected void onPostExecute(JSONObject json) {  
        try {  
            pDialog.dismiss();  
            Intent i = new Intent(SplashScreen.this, FaculdadeActivity.class);  
            startActivity(i);  
            finish();  
            // MainActivity.this.onResume();  
        } catch (Exception e) {  
  
        }  
  
    }  
  
}
```

# Consumindo as Disciplinas de um Json (Activity SplashScreen)

```
public static JSONObject Json(){  
  
    JSONObject json = null;  
    String resp=null;  
  
    try {  
        // Create connection to send GCM Message request.  
        URL url1 = new URL("http://www.ictios.com.br/emjorge/appfaculdade/" + "index1.php");  
        HttpURLConnection conn = (HttpURLConnection) url1.openConnection();  
        conn.setRequestProperty("Content-Type", "application/json");  
        conn.setRequestMethod("POST");  
        conn.setDoOutput(true);  
  
        // Read GCM response.  
        InputStream inputStream = conn.getInputStream();  
        resp = IOUtils.toString(inputStream);  
        json = new JSONObject(resp);  
  
        return json;  
  
    } catch (Exception e){  
        e.printStackTrace();  
    }  
    return null;  
}
```

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