

INSTITUTO FEDERAL DE
EDUCAÇÃO, CIÊNCIA E TECNOLOGIA
MARANHÃO

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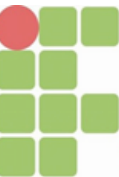
Programação para Dispositivos Móveis

Aula - Ciclo de Vida

Caxias - MA

Roteiro

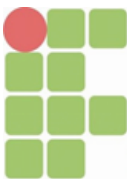
Ciclo de Vida



Ciclo de vida

Nova Activity

- Quando se é criado uma nova tela na aplicação, esta deverá uma classe que herda de Activity;
- Dentre os principais métodos da activity estão os que são responsáveis pelo seu ciclo de vida, são eles:
 - onCreate
 - onStart
 - onResume
 - onRestart
 - onPause
 - onStop
 - onDestroy



Ciclo de vida

onCreate

- É chamado quando a **activity** é criada;

onStart

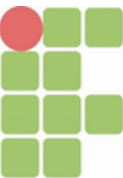
- É chamado após o **onCreate**, e antes da **activity** se tornar visível;

onResume

- É chamado após o **onStart**, quando a **activity** se torna visível;

onRestart

- É executado quando uma **Activity** estava interrompida temporariamente e esta sendo iniciada novamente;



Ciclo de vida

onPause

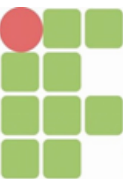
- É chamado após o **onResume**, quando a **activity** está para perder a visibilidade para outra **activity**;

onStop

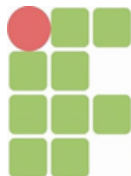
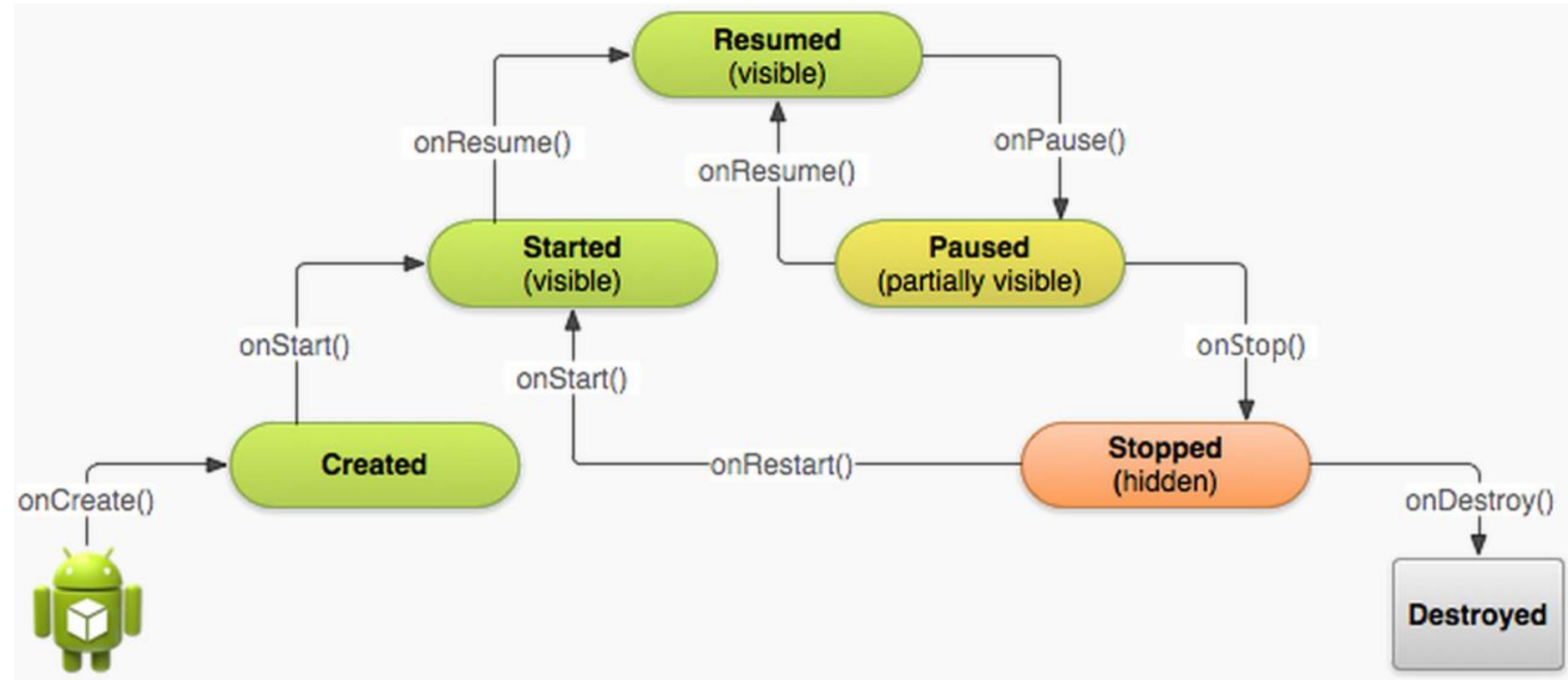
- A **activity** não está mais visível para o usuário;

onDestroy

- Método responsável por liberar da memória a **activity**, sendo a última chamada que a mesma irá receber.



Ciclo de vida





Roteiro



Prj_Android03

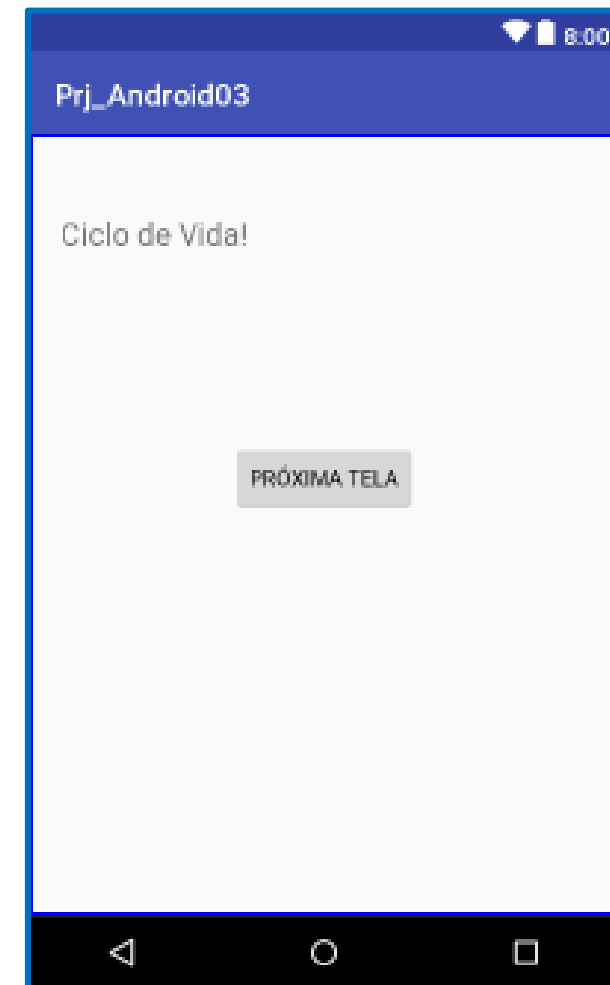
Prj_Android03

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="20dp">

    <TextView
        android:id="@+id/txt_titulo"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Ciclo de Vida!"
        android:textSize="20dp"
        android:layout_marginTop="50dp" />

    <Button
        android:id="@+id/btn_prox_tela"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Próxima Tela"
        android:layout_marginTop="200dp"
        android:layout_centerHorizontal="true"
        android:onClick="proximaTela" />

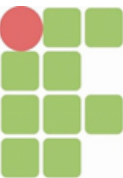
</RelativeLayout>
```



Prj_Android03

```
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.view.MotionEvent;
import android.view.View;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Log.d( tag: "meuLog", msg: "Evento Abriu Cena MainActivity!");
    }
    @Override
    protected void onStop() {
        super.onStop();
        Log.d( tag: "meuLog", msg: "Evento Saindo do MainActivity!");
    }
    @Override
    public boolean onTouchEvent(MotionEvent event){
        Log.d( tag: "meuLog", msg: "Evento Tocou na Cena MainActivity!");
        return super.onTouchEvent(event);
    }
}
```



Prj_Android03

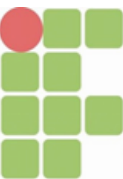
```
@Override
protected void onStart() {
    super.onStart();
    Log.d( tag: "meuLog", msg: "Evento Start MainActivity!");
}

@Override
protected void onPause() {
    super.onPause();
    Log.d( tag: "meuLog", msg: "Evento Pausado no MainActivity!");
}

@Override
protected void onResume() {
    super.onResume();
    Log.d( tag: "meuLog", msg: "Evento Voltou para o MainActivity!");
}

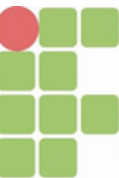
@Override
protected void onRestart() {
    super.onRestart();
}

@Override
protected void onDestroy() {
    super.onDestroy();
}
```



Prj_Android03

```
public void proximaTela(View v) {  
    Intent intent = new Intent( packageContext: MainActivity.this, ProximaActivity.class);  
    startActivity(intent);  
}
```



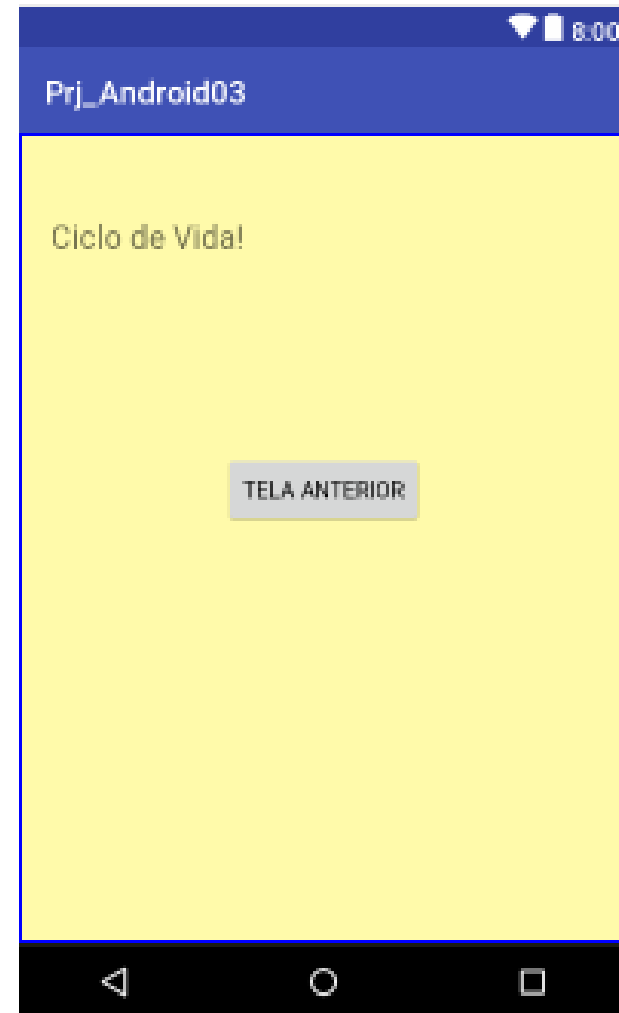
Prj_Android03

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="20dp"
    android:background="#ffffaaa">

    <TextView
        android:id="@+id/txt_titulo"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Ciclo de Vida!"
        android:textSize="20dp"
        android:layout_marginTop="50dp" />

    <Button
        android:id="@+id/btn_tela_ant"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Tela Anterior"
        android:layout_marginTop="200dp"
        android:layout_centerHorizontal="true"
        android:onClick="telaAnterior" />

</RelativeLayout>
```



Prj_Android03

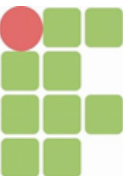
```
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.view.MotionEvent;
import android.view.View;

public class ProximaActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_proxima);
        Log.d( tag: "meuLog", msg: "Evento Abriu Cena ProximaActivity!");
    }

    @Override
    protected void onStop() {
        super.onStop();
        Log.d( tag: "meuLog", msg: "Evento Saindo do ProximaActivity!");
    }

    @Override
    public boolean onTouchEvent(MotionEvent event){
        Log.d( tag: "meuLog", msg: "Evento Tocou na Cena ProximaActivity!");
        return super.onTouchEvent(event);
    }
}
```



Prj_Android03

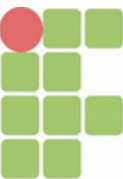
```
@Override
protected void onStart() {
    super.onStart();
    Log.d( tag: "meuLog", msg: "Evento Start ProximaActivity!");
}

@Override
protected void onPause() {
    super.onPause();
    Log.d( tag: "meuLog", msg: "Evento Pausado no ProximaActivity!");
}

@Override
protected void onResume() {
    super.onResume();
    Log.d( tag: "meuLog", msg: "Evento Voltou para o ProximaActivity!");
}

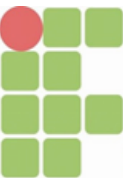
@Override
protected void onRestart() {
    super.onRestart();
}

@Override
protected void onDestroy() {
    super.onDestroy();
}
```



Prj_Android03

```
public void telaAnterior(View v) {  
    Intent intent = new Intent( packageContext: ProximaActivity.this, MainActivity.class);  
    startActivity(intent);  
}  
}
```



Roteiro

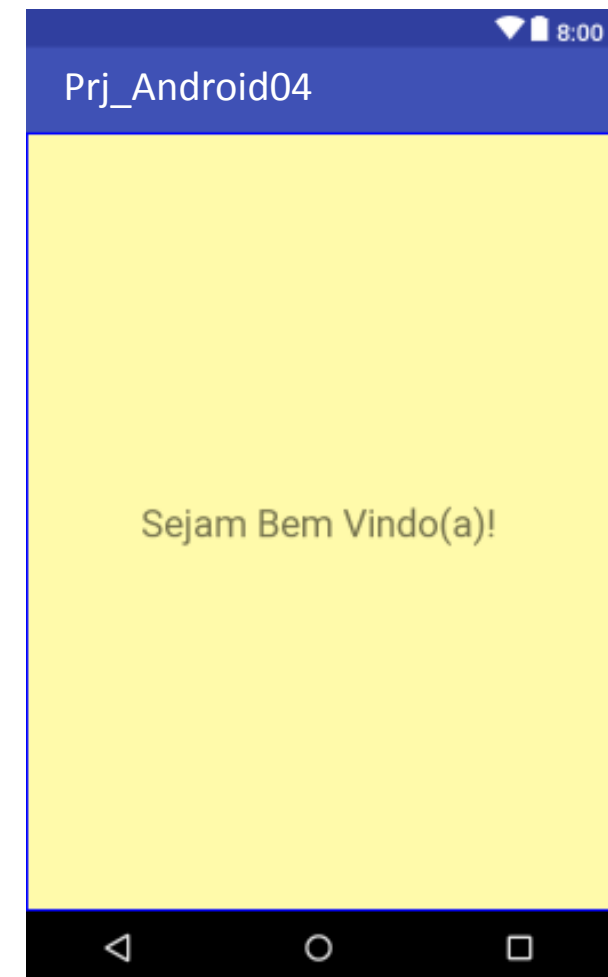


Prj_Android04

Prj_Android04

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="20dp"
    android:background="#ffffaa" >

    <TextView
        android:id="@+id/txt_titulo"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Sejam Bem Vindo(a) !"
        android:textSize="25dp"
        android:layout_centerVertical="true"
        android:layout_centerHorizontal="true" />
</RelativeLayout>
```



Prj_Android04

```
import android.content.Intent;
import android.os.Handler;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

public class SplashActivity extends AppCompatActivity {

    private final static int TIME_SPLASH = 5000;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash);

        new Handler().postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent dashboard = new Intent( packageContext: SplashActivity.this, MainActivity.class);
                startActivity(dashboard);
                finish();
            }
        }, TIME_SPLASH);
    }
}
```

Prj_Android04

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="20dp">

    <TextView
        android:id="@+id/txt_titulo"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Tela Principal!"
        android:textSize="25dp"
        android:layout_marginTop="50dp"
        android:layout_centerHorizontal="true" />
</RelativeLayout>
```

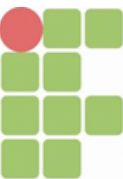


Prj_Android04

```
import android.content.Intent;
import android.os.Handler;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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



Roteiro

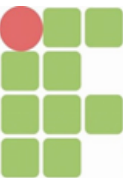


Praticando

Praticando

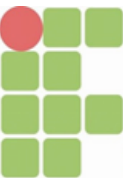
Prj_Android04

- Modifique o `Prj_Android04` e crie uma mensagem quando for finalizar aplicação “obrigado pela preferência!”.



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).

