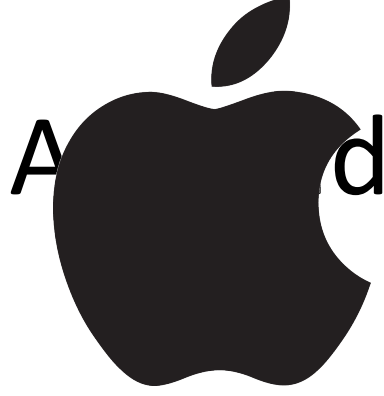


Android

Android



Android

- What can Android do and iOS can't?
- Some technical Android stuff

What can Android do and iOS can't?

...from the developer's point of view

Background stuff

Background stuff

Android:

- Services

Background stuff

Android:

- Services

iOS

- Only for: audio, location, VOIP, newsstand-content, external-accessory, bluetooth central

Multiview support

Android

- Apps can implement multiview support



Multiview support

Android

- Apps can implement multiview support

iOS

Multiview support

Android

- Apps can implement multiview support

iOS

- ☹️

NFC

NFC

- Set of standards for smartphones and similar devices to establish radio communication with each other by touching them together or bringing them into close proximity, usually no more than a few centimeters





Almost total freedom

- Connect automatically to wireless

Almost total freedom

- Connect automatically to wireless
- Access to information (missed calls, messages)

Almost total freedom

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Almost total freedom






- Connect automatically to wireless
- Access to information (missed calls, messages)
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- ...



talk USB Android Wi-Fi Signal Strength Back 10:40 AM

 **My Tracks** FREE
My Tracks Team at Google ★★★★★

This application has access to the following:

-  **Your location**
coarse (network-based) location, fine (GPS) location
-  **Default**
Read Google service configuration
-  **Network communication**
full Internet access
-  **Your accounts**
Google Docs, Google Maps, Google Spreadsheets, manage the accounts list, use the authentication credentials of an account
-  **System tools**
prevent phone from sleeping

OK Cancel

Some technical stuff

Some technical stuff

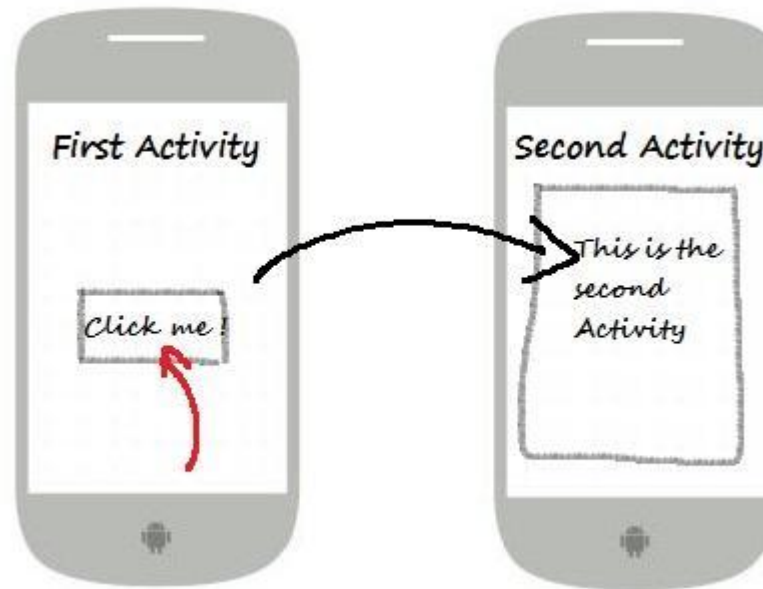
- Java
- Eclipse

Some technical stuff

- The backbone: Activities

Some technical stuff

- The backbone: Activities



Some technical stuff

- Activity
 - It's a class
 - It must be inherited

```
package com.example;

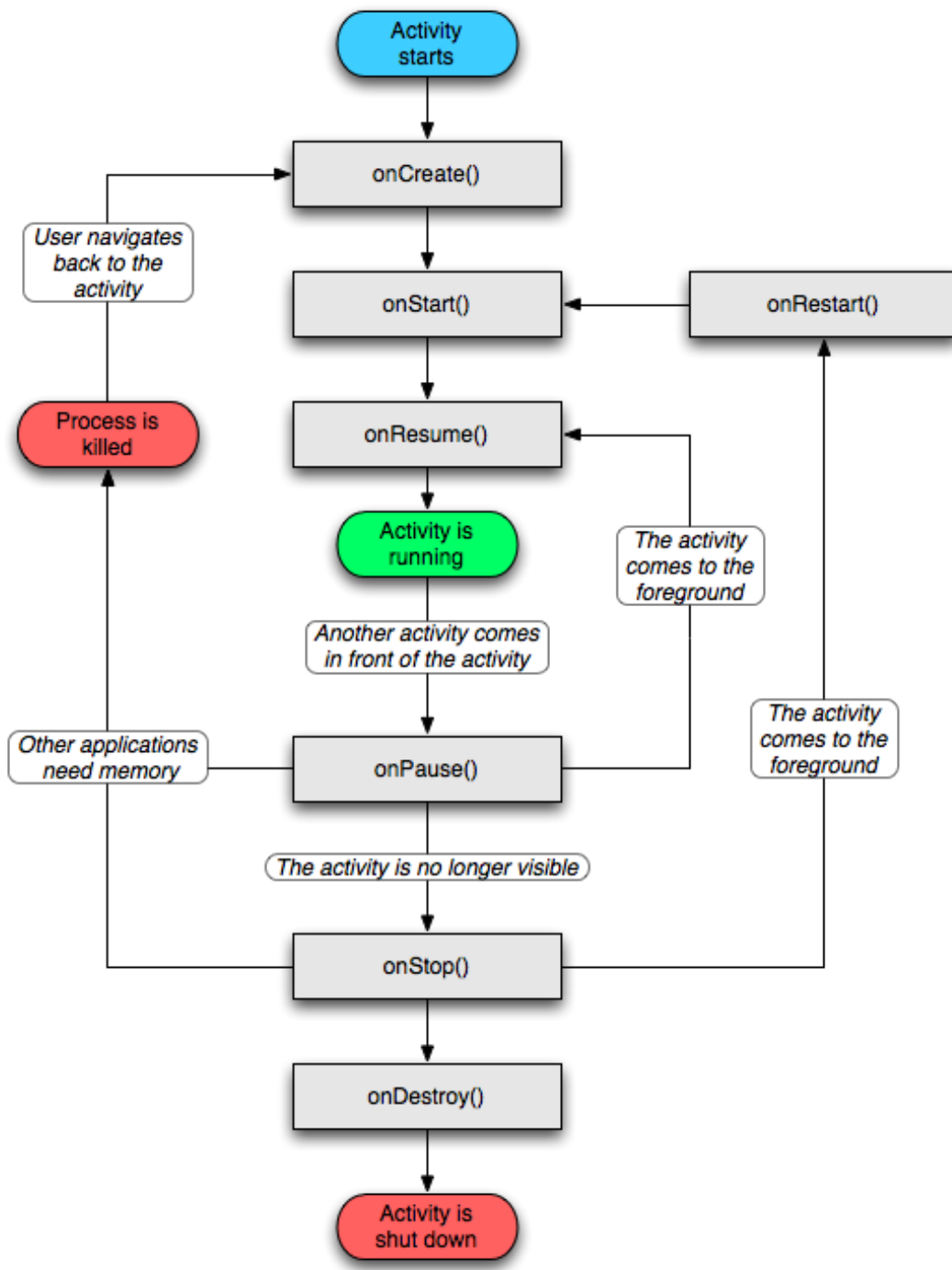
import android.app.Activity;
import android.os.Bundle;

public class MyActivity extends Activity
{
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        // TODO Auto-generated method stub
        super.onCreate(savedInstanceState);
    }

    @Override
    protected void onPause() {
        // TODO Auto-generated method stub
        super.onPause();
    }

    @Override
    protected void onDestroy()
    {
        // TODO Auto-generated method stub
        super.onDestroy();
    }

    @Override
    public void onLowMemory() {
        // TODO Auto-generated method stub
        super.onLowMemory();
    }
}
```



Fragments

- An “activity” in another activity

More technical stuff

- User interface = XML

More technical stuff

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

    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:textColor="#000000"
        android:text="This is Activity 1" />

    <Button android:text="Next"
        android:id="@+id/Button01"
        android:layout_width="250px"
        android:textSize="18px"
        android:layout_height="55px">
</Button>

    <EditText
        android:id="@+id/editText1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:inputType="textPersonName" >

        <requestFocus />
    </EditText>

    <EditText
        android:id="@+id/editText2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:inputType="textPersonName" />

    <EditText
        android:id="@+id/editText3"
```

More technical stuff

- Events

More technical stuff

- Events = when a button is pressed something happens

```

public class FriendsActivity extends Activity {

    Button locationsButton;
    Button friendsButton;
    Button scanButton;
    Button profileButton;
    Button searchButton;

    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.friends_activity);

        locationsButton = (Button) findViewById(R.id.TAB_BAR_LOCATIONS_BUTTON);
        friendsButton = (Button) findViewById(R.id.TAB_BAR_FRIENDS_BUTTON);
        scanButton = (Button) findViewById(R.id.TAB_BAR_SCAN_BUTTON);
        profileButton = (Button) findViewById(R.id.TAB_BAR_PROFILE_BUTTON);
        searchButton = (Button) findViewById(R.id.TAB_BAR_SEARCH_BUTTON);

        locationsButton.setOnClickListener(new OnClickListener() {

            @Override
            public void onClick(View v) {
                // TODO Auto-generated method stub

                Intent intent = new Intent(getApplicationContext(),LocationsActivity.class);
                startActivity(intent);
            }
        });

        scanButton.setOnClickListener(new OnClickListener() {

            @Override
            public void onClick(View v) {
                // TODO Auto-generated method stub

                Intent intent = new Intent(getApplicationContext(),ScanQRCodeActivity.class);
                startActivity(intent);
            }
        });

        profileButton.setOnClickListener(new OnClickListener() {

            @Override
            public void onClick(View v) {

```

XML Manifest file

- presents essential information about the application to the Android system

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.feedspotandroidserver"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-sdk
        android:minSdkVersion="8"
        android:targetSdkVersion="17" />

    <uses-permission android:name="android.permission.INTERNET" />

    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name"
        android:theme="@android:style/Theme.NoTitleBar" >
        <activity
            android:name="me.feedspot.view.LoginActivity"
            android:label="@string/app_name"
            android:screenOrientation="portrait" >

        </activity>
        <activity
            android:name="me.feedspot.view.TabBarController"
            android:screenOrientation="portrait">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

        <activity
            android:name="me.feedspot.view.RegisterScreenActivity"
            android:screenOrientation="portrait"></activity>
        <activity
            android:name="me.feedspot.view.ChangePasswordActivity"
            android:screenOrientation="portrait"></activity>
        <activity
            android:name="me.feedspot.view.TestStuffHere"
            android:screenOrientation="portrait"></activity>
        <activity
            android:name="me.feedspot.view.PlaceDetailsActivity"
            android:screenOrientation="portrait"></activity>
    </application>

</manifest>
```

That's it for today!
Thank you!