

# Android Quick Start demonstration

The purpose of this demonstration is to make you experience an end-to-end flow where IBM MobileFirst Platform Foundation SDK for Android is integrated into an Android project and used to retrieve data by using a MobileFirst adapter.

To learn more about creating projects and applications, using adapters and lots more, visit the Native Android Development (../) landing page.

**Prerequisite:** Make sure that you have installed the following software:

- MobileFirst Platform command line tool (download (file:///home/travis/build/MFPSPamples/DevCenter/\_site/downloads))
  - Android Studio
- 

## 1. Create a MobileFirst back-end project and adapter.

- Create a back-end project in a location of your choice.

```
mfp create MyProject
cd MyProject
```

- Add an HTTP adapter to the project.

```
mfp add adapter MyAdapter -t http
```

## 2. Deploy artifacts to the MobileFirst Server.

- Start the MobileFirst Server and deploy the adapter.

```
mfp start
mfp push
```

## 3. Create an Android project in Android Studio.

## 4. Add the MobileFirst Android SDK to the Android Studio project

- In **Project > Gradle scripts**, select **build.gradle (Module: app)**.
- After `apply plugin: 'com.android.application'`, add the following line:

```
repositories {
    jcenter()
}
```

- Inside `android`, add the following lines:

```
packagingOptions {  
    pickFirst 'META-INF/ASL2.0'  
    pickFirst 'META-INF/LICENSE'  
    pickFirst 'META-INF/NOTICE'  
}
```

- Inside `dependencies`, add the following lines:

```
compile group: 'com.ibm.mobile.foundation',  
        name: 'ibmmobilefirstplatformfoundation',  
        version: '7.1.0.0',  
        ext: 'aar',  
        transitive: true
```

- Add the following permissions to the `AndroidManifest.xml` file:

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

- Add the MobileFirst UI activity:

```
<activity android:name="com.worklight.wlclient.ui.UIActivity" />
```

- In Terminal, navigate to the root of the Android Studio project and add the required configuration files by running this command:

```
mfp push
```

- **Implement MobileFirst adapter invocation.**

- Main `Activity` class

Make sure that your `MainActivity` class extends the `Activity` class:

```
public class MainActivity extends Activity {  
    ...
```

Add the following `import` statements:

```
import com.worklight.wlclient.api.*;
import android.util.Log;
import java.net.URI;
import java.net.URISyntaxException;
```

Add the following lines to the `onCreate` method:

```
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
final WLClient client = WLClient.createInstance(this);
client.connect(new WLResponseListener() {
    @Override
    public void onSuccess(WLResponse wlResponse) {
        URI adapterPath = null;
        try {
            adapterPath = new URI("/adapters/MyAdapter/getFeed");
        } catch (URISyntaxException e) {
            e.printStackTrace();
        }
        WLResourceRequest request = new WLResourceRequest(adapterPath, WL
ResourceRequest.GET);
        request.send(new MyInvokeListener());
    }
    @Override
    public void onFailure(WLFailResponse wlFailResponse) {
        Log.i("MFPMYProject", "Failed connecting to the MobileFirst Server: " + wlFail
Response.getErrorMsg());
    }
});
```

#### ■ `MyInvokeListener` class

Add a new `MyInvokeListener` class.

Add the following `import` statements:

```
import com.worklight.wlclient.api.*;
import android.util.Log;
```

Paste the following lines:

```

public class MyInvokeListener implements WLResponseListener {
    @Override
    public void onSuccess(WLResponse wlResponse) {
        Log.i("MFPMMyProject", "Adapter invocation response: " + wlResponse.getResponseJSON());
    }
    @Override
    public void onFailure(WLFailResponse wlFailResponse) {
        Log.i("MFPMMyProject", "Adapter invocation response: " + wlFailResponse.getErrMsg());
    }
}

```

## ○ Final configurations

- Create an Android Virtual Device (AVD).

## ○ Click Run.

Review the LogCat view for the data retrieved by the adapter request.

