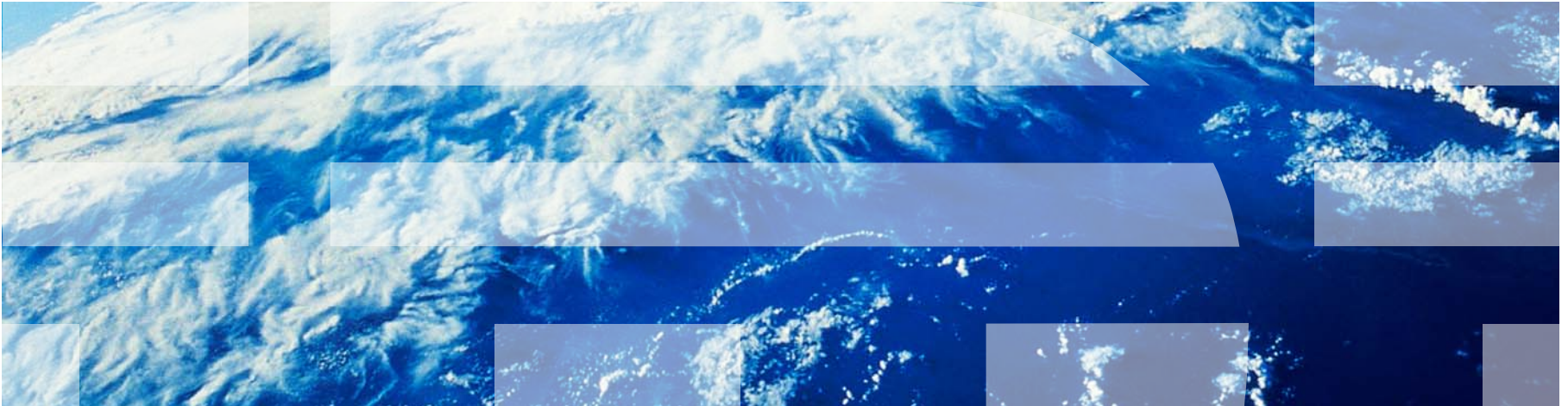


IBM Worklight V6.1.0 Getting Started

Android – Using native pages in hybrid applications



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Agenda

- Overview
- Web portion of the code
- Creating a native page
- Returning control to the web view
- Exercise

Overview

- This module explains how to combine native and web pages in an Android application.
- Use the `WL.NativePage.show()` API to open a native page from JavaScript™.
- With this method, you can send data from JavaScript to the open native page, and specify a callback to call after the native page closes.

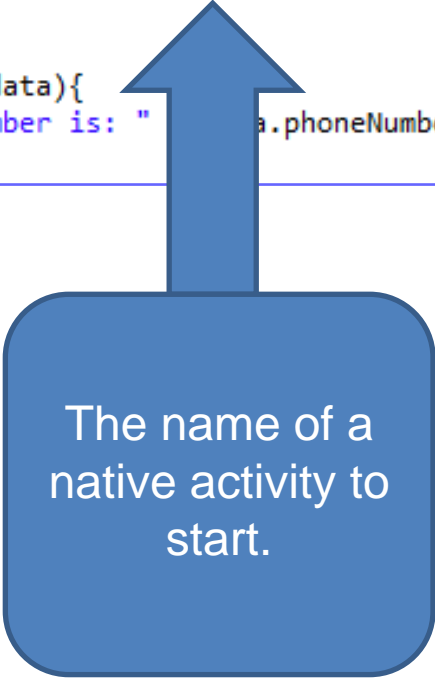
Agenda

- Overview
- **Web portion of the code**
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- Returning control to the web view
- Exercise

Web portion of the code

- Use the `WL.NativePage.show()` API method to start a native page.

```
function openNativePage ()  
{  
    var params = {nameParam : $('#nameInput').val()};  
    WL.NativePage.show('com.AndroidShowNativePage.HelloNative', backFromNativePage, params);  
}  
  
function backFromNativePage(data){  
    alert("Received phone number is: " + data.phoneNumber);  
}
```



The name of a
native activity to
start.

Web portion of the code – continued

- Use the `WL.NativePage.show()` API method to start a native page.

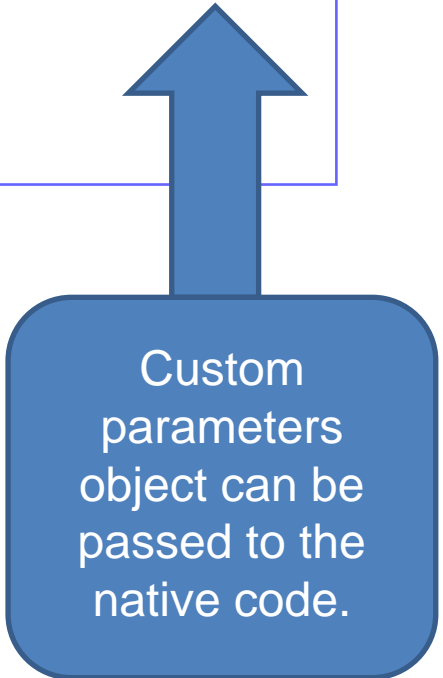
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function backFromNativePage(data){  
    alert("Received phone number is: " + data.phoneNumber);  
}
```

A callback
function to
invoke when the
native activity
finishes.

Web portion of the code – continued

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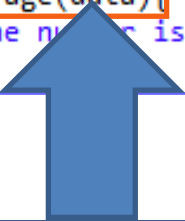
Custom
parameters
object can be
passed to the
native code.

Web portion of the code – continued

- Use the `WL.NativePage.show()` API method to start a native page.

```
function openNativePage ()
{
    var params = {nameParam : $('#nameInput').val()};
    WL.NativePage.show('com.AndroidShowNativePage.HelloNative', backFromNativePage, params);
}

function backFromNativePage(data){
    alert("Received phone number is: " + data.phoneNumber);
}
```



When the native activity finishes, it can pass data back to the web part of an application.

Agenda

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Creating a native page: writing a native page

- The page must be implemented as an Android activity.
- Either implement an activity, or extend an existing activity.
- Like any other activity, you must declare this activity in the `AndroidManifest.xml` file.

```
<activity android:name=".HelloNative"></activity>
```

- Use the same package and class names as in the `WL.NativePage` API call.

```
public class HelloNative extends Activity {
```

Creating a native page: retrieving parameters

- Upon invocation of the activity, custom data parameters that are passed from the web view can be retrieved by using an intent.

JavaScript code

```
function openNativePage ()  
{  
  var params = {nameParam : $('#nameInput').val()};  
  WL.NativePage.show( com.AndroidShowNativePage.HelloNative', backFromNativePage, params);  
}
```



Native code

```
@Override  
protected void onCreate(Bundle savedInstanceState) {  
  super.onCreate(savedInstanceState);  
  
  String name = getIntent().getStringExtra("nameParam");  
}
```

Agenda

- Combining native and web
- Web portion of the code
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Returning control to the web view

- When the native page needs to switch back to the web view, it calls the `finish()` function for the activity.
- You can pass data back to the web view by creating an Intent object.

Native code

```
String phoneNumber = editText.getText().toString();  
Intent phoneNumberInfo = new Intent();  
phoneNumberInfo.putExtra("phoneNumber", phoneNumber);  
setResult(RESULT_OK, phoneNumberInfo);  
finish();
```



JavaScript code

```
function backFromNativePage(data){  
    alert("Received phone number is: " + data.phoneNumber);  
}
```

Agenda

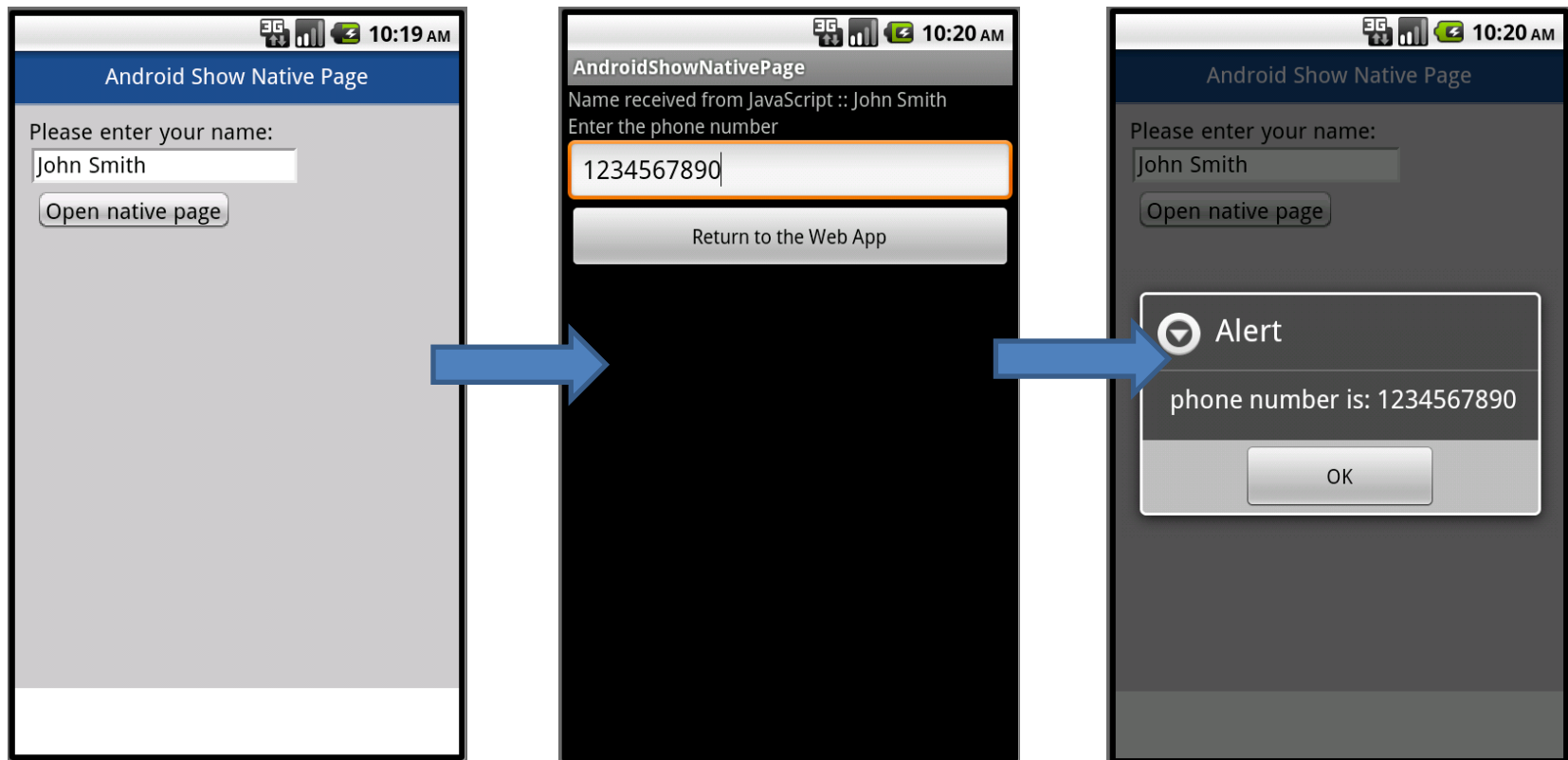
- Combining native and web
- Web portion of the code
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- **Exercise**

Exercise

- Create an application that behaves as follows:
 - A web page that contains a button opens.
 - When you tap the button, a native page is displayed, with text received from the web page.
 - The native page also contains a button.
 - When you tap the native button, the native page closes and the web page is displayed.
 - An alert with text received from the native page is displayed.

Exercise solution

- The sample for this training module can be found on the **Getting Started** page of the IBM Worklight® documentation website at <http://www.ibm.com/mobile-docs>



Check yourself questions

- What are the steps to create a native page?
 - Create a new Java™ class, extend the activity.
 - Create a new Java class, extend the activity, and add an activity declaration to the `AndroidManifest.xml`.
 - Create a new Java class, extend the native page.
 - Create a new Java class, extend the native page, and add a native page declaration to the `AndroidManifest.xml`.
- Is it possible to transfer data between web and native page?
 - Web to native – no, native to web – no.
 - Web to native – yes, native to web – no.
 - Web to native – no, native to web – yes.
 - Web to native – yes, native to web – yes.

Check yourself questions

- What are the steps to create a native page?
 - Create a new Java™ class, extend the activity.
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