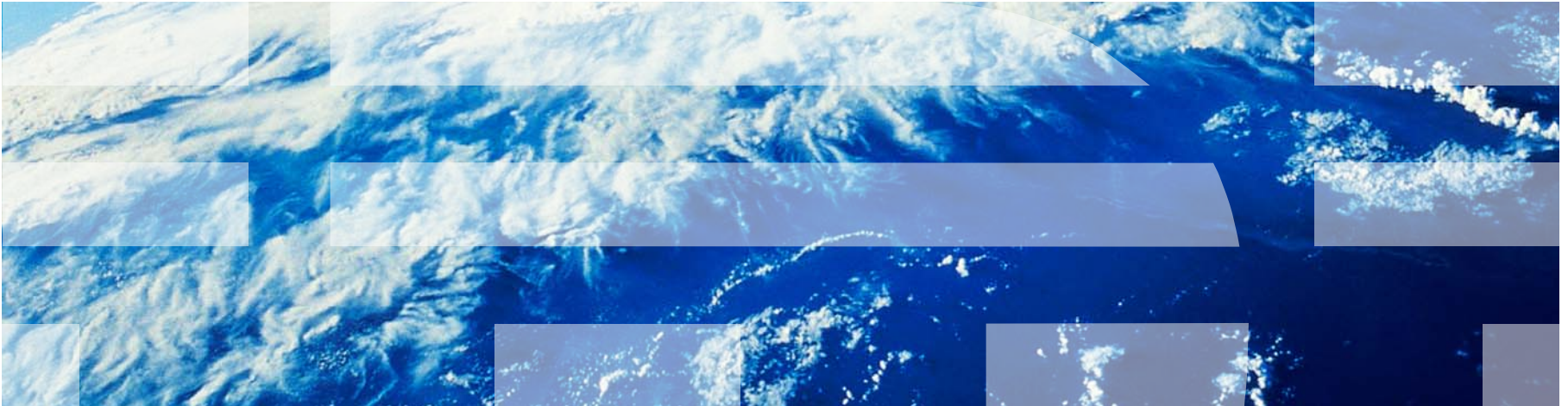


# ***IBM Worklight V6.1.0 Getting Started***

## **iOS - 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 iOS 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
- Creating a native page
- Returning control to the web view
- Exercise

## Web portion of the code

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

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

The name of a  
native iOS  
UIViewController  
instance to start

## Web portion of the code – continued

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

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

A callback  
function to call  
when the native  
page closes

## Web portion of the code – continued

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

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

You can pass custom parameters object to the native code.



## Web portion of the code – continued

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

```
function openNativePage(){  
    var params = {nameParam : $('#nameInput').val()};  
    WL.NativePage.show('HelloNative', backFromNativePage, params);  
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function backFromNativePage(data){  
    alert("Received phone number is: " + data.phoneNumber);  
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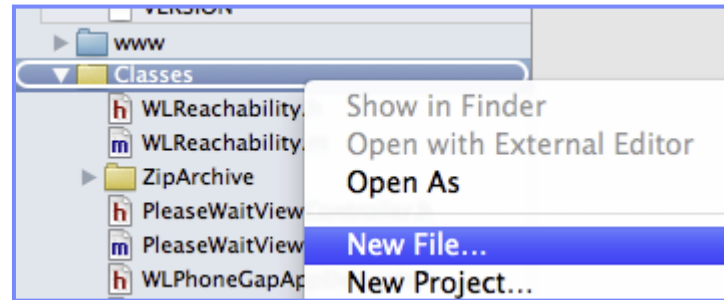
After the native closes, it can pass data back to the web part of an application.

# *Agenda*

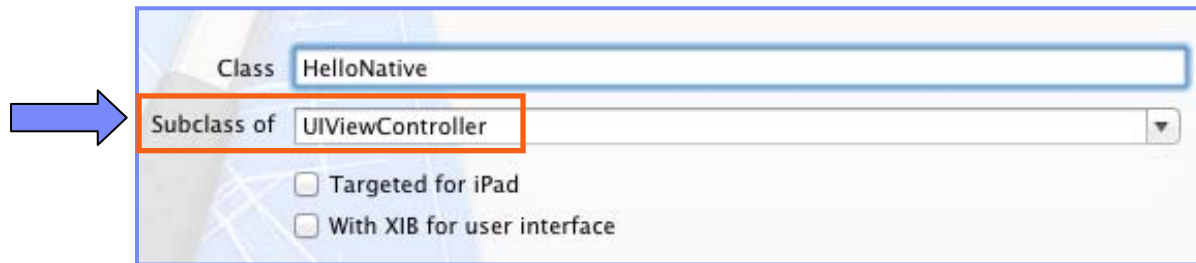
- Combining native and web
- Web portion of the code
- **Creating a native page**
- Returning control to the view
- Exercise

## Creating a native page

- Add a file to your `Classes` folder in Xcode.



- Make sure to subclass the **UIViewController**.



## *Creating a native page – continued*

### **Important:**

- If you work with existing `.m` and `.h` files, make sure to place these files in the **Classes** folder in the Xcode project.
- If you place the `.m` and `.h` files only in the **iphone\native\classes** folder in Eclipse, these files will not be referenced in the Xcode project.

## Creating a native page – continued

- Import `HelloNative.h` to your class.
- You can retrieve custom data parameters that are passed from the web view by using the `setDataFromWebView:(NSDictionary*)data` method.

### JavaScript code

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



### Native code

```
-(void)setDataFromWebView:(NSDictionary*)data{  
    self.nameParam = (NSString*)[data valueForKey:@"nameParam"];  
}
```

# *Agenda*

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

## Returning control to the web view

- When the native page switches back to the web view, a `[NativePage showWebView:]` method should be called.
- You can pass data back to the web view by using the `NSDictionary` object.

### Native code

```
-(IBAction)returnClicked:(id)sender{  
    NSString *phone = [phoneNumber text];  
    NSDictionary *returnedData = [NSDictionary dictionaryWithObject:phone  
                                forKey:@"phoneNumber"];  
    [NativePage showWebView:returnedData];  
}
```

### JavaScript code

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

# *Agenda*

- Combining native and web
- Web portion of the code
- Creating a native page
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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 that contains the text 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 Objective C class, subclass the UIViewController.
  - Create a new Objective C class, subclass the UINativePage.
  - Create a new Objective C class, make it a partial class of the application main ViewController.
  - Add UI layout to the existing ViewController.
- 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 Objective C class, subclass the UIViewController.
  - Create a new Objective C class, subclass the UINavigationController.
  - Create a new Objective C class, make it a partial class of the application main ViewController.
  - Add UI layout to the existing ViewController.
- 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.

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