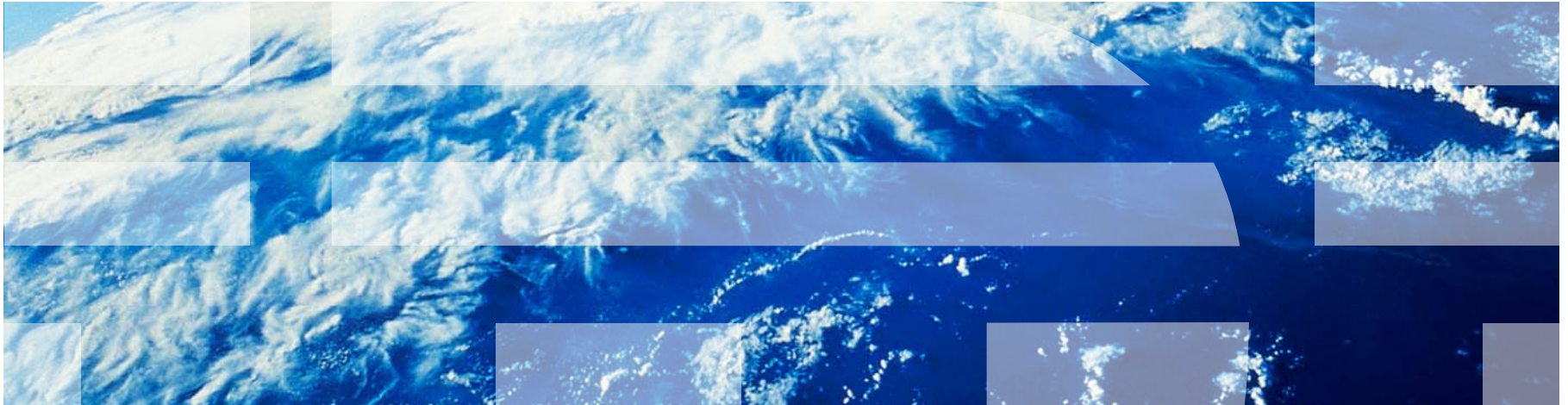# IBM Worklight V6.1.0
Getting Started

General information when developing for iOS

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Installation

See ***Setting up your iOS Development Environment*** training module for a detailed explanation

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iOS development

- An iPhone application that is developed by using IBM Worklight® comprises the following components:

  - The www.bundle files, which are written in HTML, CSS and JavaScript™, and that run in one or more instances of the **UIWebView** that is hosted within the Main class.

  - An Objective-C ("native") Main class that is provided by IBM Worklight.

  - A set of Objective-C and JavaScript libraries that provide access to various iPhone features and capabilities.

- All application components, including the web code that the developer provides, are packaged into a single iPhone application.

- If you use a source control management system (such as Rational Team Concert™, Git, or Subversion), see the IBM Worklight user documentation at http://pic.dhe.ibm.com/infocenter/wrklight/v6r1m0/topic/com.ibm.worklight.dev.d oc/devref/r_integrating_with_source_contro.html for instructions on committing your source code.

iOS development - continued

- Designing for iOS now differs greatly between iOS 6 and iOS 7.

  - It is useful for developers to consult the Apple iOS Human Interface Guidelines at https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/

- When you develop for iOS, it is also useful to consult the iOS Developer Library at https://developer.apple.com/library/ios/navigation/

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Developing for different resolutions

- iOS devices have various screen resolutions:
  - iPhone 1/2/3/3GS – 320 x 480
  - iPhone 4/4S – 640 x 960
  - iPhone 5/5s – 640 x 1136
  - iPad 1/2/mini – 768 x 1024
  - iPad 3/4/5 – 1,536 x 2,048

- When you are displaying graphical elements on wider screens, iOS automatically scales images and fonts to the appropriate ratio.

- For example, on a 640-pixel wide screen, a 100-pixel wide image is scaled by 640/320 (= 2) to 200 pixels in width, and text that is displayed with an 18-pixel font is displayed with a 36-pixel font.

Developing for different resolutions - continued

- The following points are the developer's responsibility:

  - **Ensure that images look good at all resolutions:**

    - Provide images for the environment with the highest resolution requirements.

    - In your CSS, scale the image width to the lower resolution.

    - In the previous example, provide an image with a width of 200 pixels, and in the CSS scale it to 100 pixels. iOS scales it back by a factor of 2 to be 200 pixels wide.

  - **Ensure that text is displayed appropriately at all resolutions**

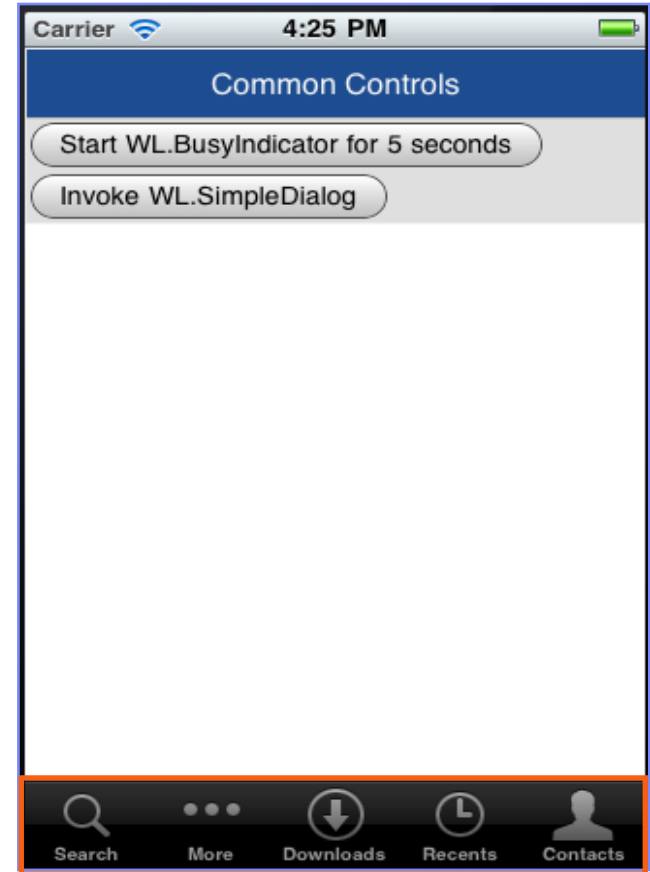   - Consider specifying font sizes in ems, rather than in pixels.

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Environment-specific APIs
Tab bars

- Tab bar navigation is one of the basic and most common principles of contemporary user interfaces.

- In an iOS application, you can invoke a native tab bar component and set its properties by using a JavaScript API.

- Each tab can have its own icon and invoke JavaScript functions.

- For more information about tab bar development, see the *Common UI Controls* training module.

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Environment-specific images

- Image file sizes differ depending on your iDevice. For more information, see the Apple iOS UI Development Guidelines at https://developer.apple.com/library/ios/documentation/userexperience/conceptual/mobilehig/IconMatrix.html#//apple_ref/doc/uid/TP40006556-CH27-SW1

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Apache Cordova

- You can use the Apache Cordova framework in iOS applications to access the native elements of a device, such as contacts, geo-location services, media services, or the accelerometer.

- For more information about Apache Cordova development, see the *Apache Cordova overview* training module.
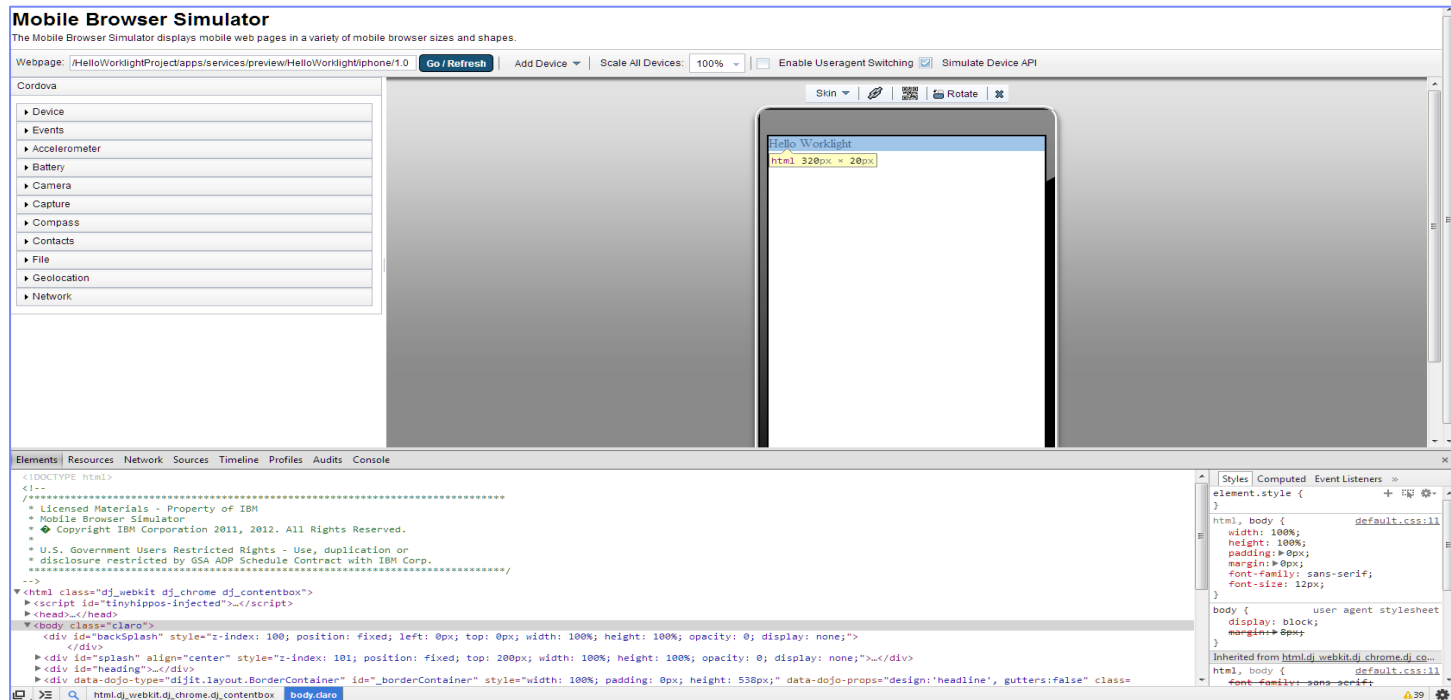
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Debugging the application
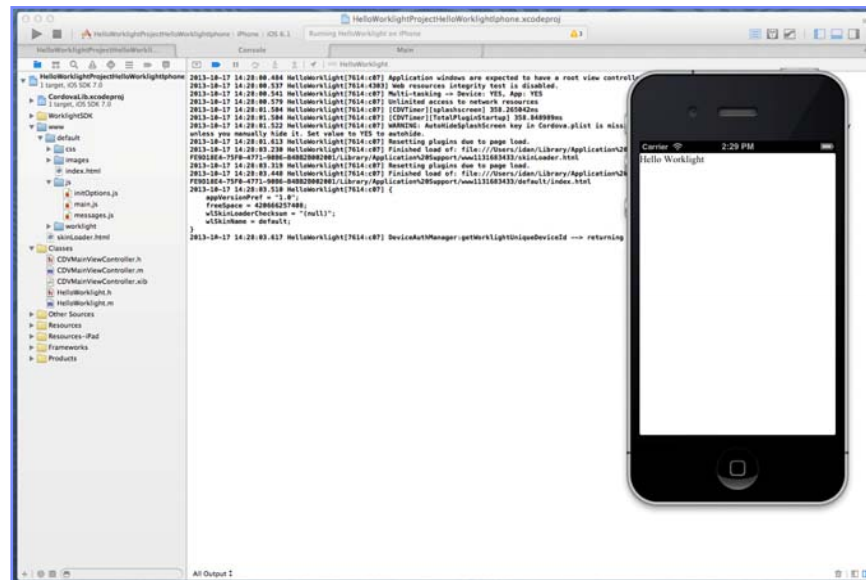
Phase 1: Testing in your browser

- Your iOS app resources are previewed in the Mobile Browser Simulator, so you are able to debug it by using the facilities of the browser, such as Firebug or Developer toolbar.

Debugging the application - continued

Phase 2: Testing in the iOS Simulator

- Preview your application on the iOS simulator.

- Experience a more native feel for the application.

- Use **Xcode console** to debug your application by using the iOS simulator.

Debugging the application - continued

Phase 3: Testing in a physical device

- To debug your iOS application on an iOS device, you first must register as a member of the iOS Developer Program.

- Enroll at **developer.apple.com**.

- Prepare and install your developer certificates and provisioning profile.

- Full details of the process can be found in the Apple developer site.

  – http://developer.apple.com/programs/iphone/test.html

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Deployment

- iOS application deployment is done through the Apple App Store.

  1. Prepare your app for submission.
     - **Important**: Before you build a production version of your application, make sure that the **worklightSettings** property inside your `application-descriptor.xml` file is set to **false.**

  2. Go through the App Store approval process.

  3. Manage your apps on the App Store.

https://developer.apple.com/iphone/appstore/

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