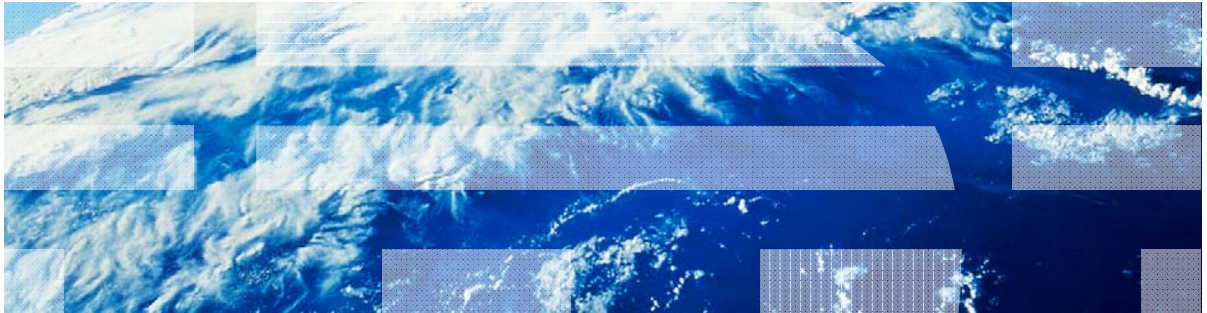


IBM Worklight V6.0.0 Getting Started

Testing Worklight Mobile Applications with the Mobile Test Workbench



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Overview

- The IBM Mobile Test Workbench for Worklight include several unique capabilities to test your Worklight applications.
- With the test workbench, you can create functional tests for IBM Worklight® hybrid and native applications that are running on iOS or Android.
- The test workbench creates tests in natural language and provides visual test editing.
- The test workbench runs within Eclipse and is integrated with Worklight Studio.



Overview

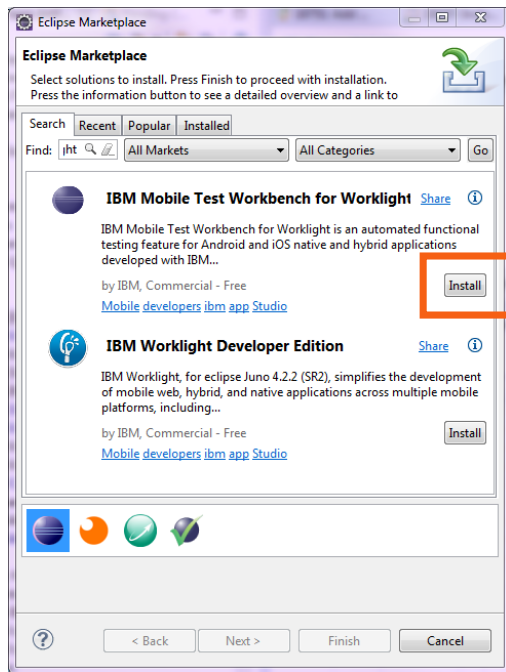
- The testing approach with test workbench proposes has four steps:
 - **Recording**: Play your test first with the recording-ready app and generate a test script.
 - **Authoring**: Edit and enhance the test script by adding verification points and others instructions.
 - **Playback**: Run the test script on a real device or a simulator.
 - **Reporting**: Generate an HTML report.

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Installing and configuring



- To use the IBM Mobile Test Workbench for Worklight, you must install an Eclipse plug-in on top of Worklight Studio.
- In Worklight Studio, use **Help/Eclipse Marketplace** and search for **Worklight**.
- When you locate the IBM Mobile Test Workbench for Worklight, click **Install**.
- Notice that both Worklight Studio V6.0 and the Mobile Test Workbench for Worklight run on top of Eclipse 4.2.2 (Juno).
- New installations of the Mobile Test Workbench for Worklight require the latest version of Worklight Studio.



Installing and configuring

- After the test workbench is installed, you can see that a new Test Workbench Eclipse perspective is available:



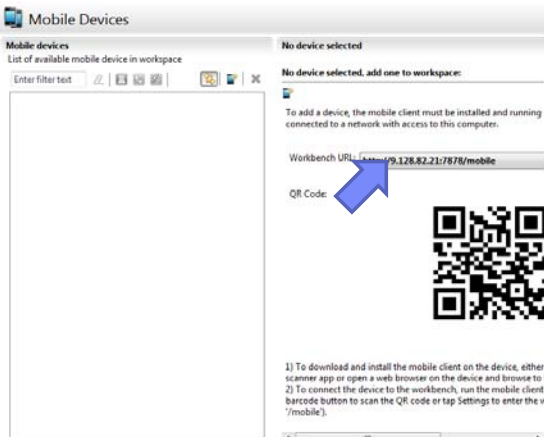
- Notice also the icons in the toolbar of Eclipse:
 -  opens the **Mobile Applications** view. This view lists all the applications that are available for testing.
 -  opens the **Mobile Devices** view. This view is listing the devices that you are using for testing your application.

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The mobile client

- With the mobile client application, you can record tests, playback tests, and view reports on the mobile device.
- This mobile application must be installed on a real device or on a simulator.
- The mobile client communicates with the test workbench to install applications, to store test scripts and test results. Notice the **Workbench URL** in the **Mobile Devices** view.



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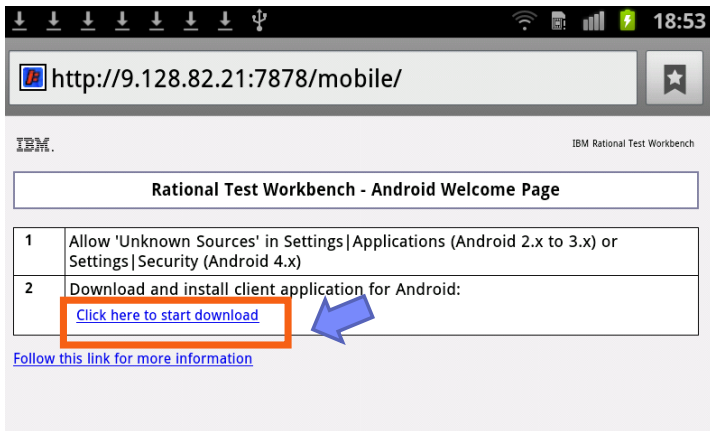
Installing the Android mobile client

- To install the mobile client on an Android device or a simulator:
 - Use the QR code that is available in the **Mobile Devices** view to open an installation page on the device.



Installing the Android mobile client

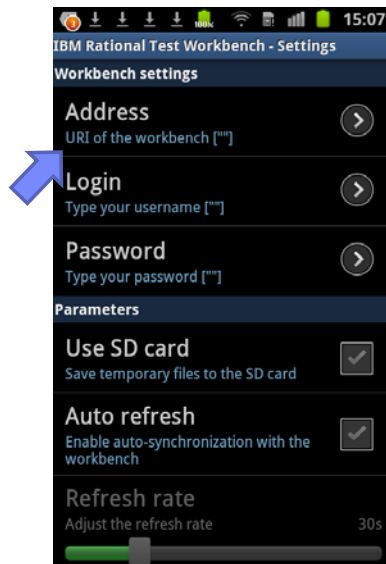
- The QR code leads you to a page on the device with installation instructions:



- Follow the instructions to download and install the mobile application on your Android device.

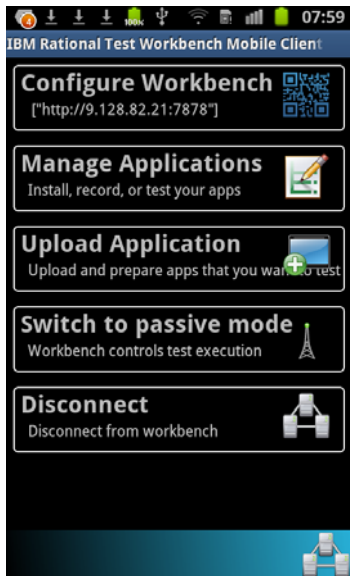
Installing the Android mobile client

- When the **IBM Rational Test Workbench** application is installed on your device, start the application.
- You start by configuring the address of the test workbench in the settings.
- The URL is the same URL as the one from the QR code but without the /mobile extension.
 - This URL is similar to the following one: `http://< your-ip-address>:7878`



Installing the Android mobile client

- If the connection is correctly established, you can see the connection icon at the bottom of the view.

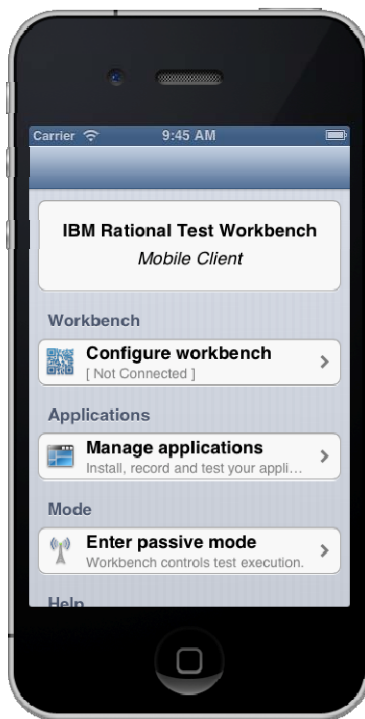


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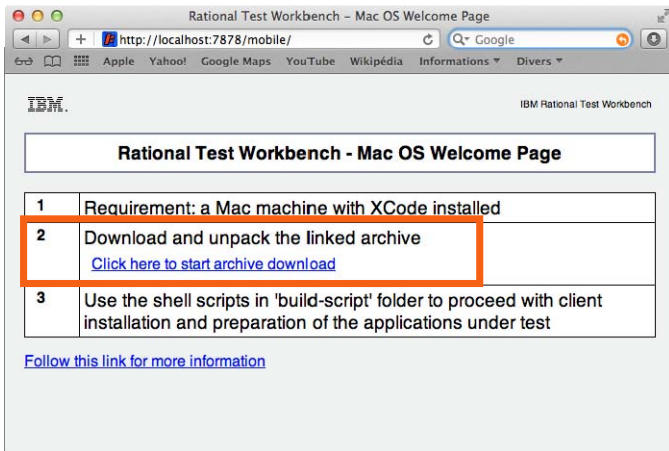
Installing the iOS mobile client

- To set up and install the mobile client on an iOS device:
 - Download the [iOS mobile client sample](#) that is associated with this module.
 - The Xcode project in this sample (**IBM RTW.xcodeproj**) contains all the necessary elements to build the mobile client for iOS.
 - This Xcode project must be recompiled and signed with your enterprise or ad hoc certificate to produce an iOS application (IPA file) that can be distributed to the testers.
 - For more information about how to create an IPA from Xcode, see the Apple iOS Dev Center website.



Installing the iOS mobile client

- To install the iOS mobile client on the iOS simulator:
 - Point Safari on your Mac to <http://localhost:7878/mobile/>:



- Download the archive and unpack it.

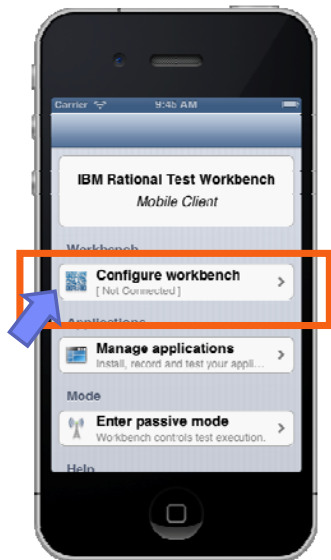
Installing the iOS mobile client

- This archive file contains a version of the mobile client for the iOS simulator.
- Use the following command in the **buildscript** directory of the archive to install the application.
 - `installIPAINSimu.sh`
`../client/iphonesimulator/RTWiOS.ipa`
- This command opens the simulator with the **IBM RTW** mobile client application installed.



Installing the iOS mobile client

- After the mobile client is installed on the device or on the simulator, you must configure the test workbench URL.
- The test workbench URL is indicated in the **Mobile Devices** view.
 - This URL is similar to the following one: `http://< your-ip-address>:7878`

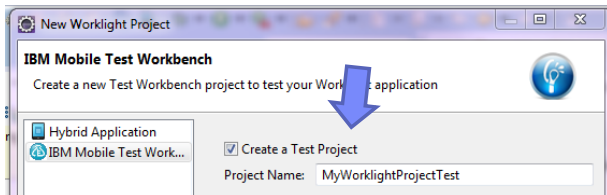
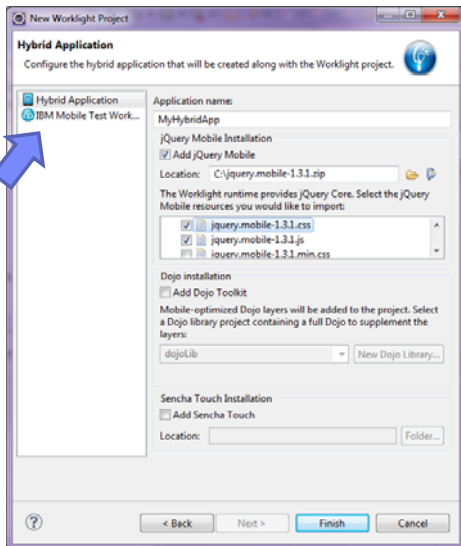


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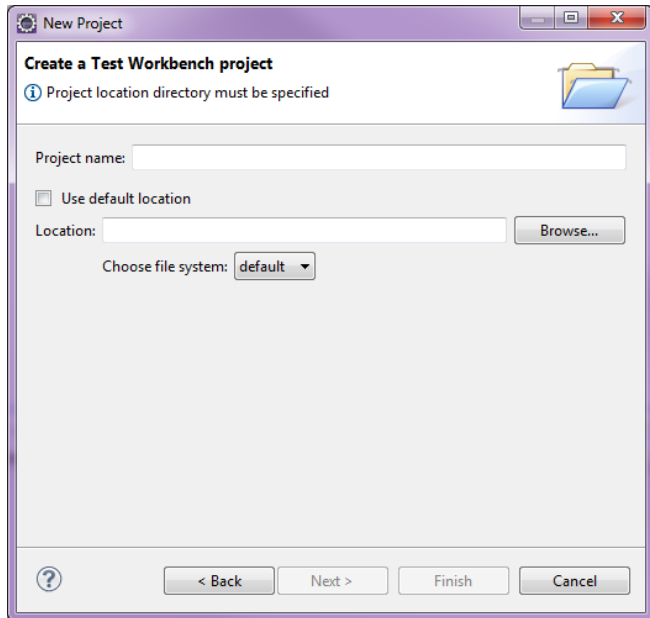
Creating a test project

- To start testing an IBM Worklight application, you must create a test project.
- The test project can be created when you create your IBM Worklight project. To do so, select **IBM Mobile Test Workbench** in the **New Worklight Project** dialog, and select **Create a Test Project**.



Creating a test project

- You can also use **File > New > Test Workbench Project** to create a test project.



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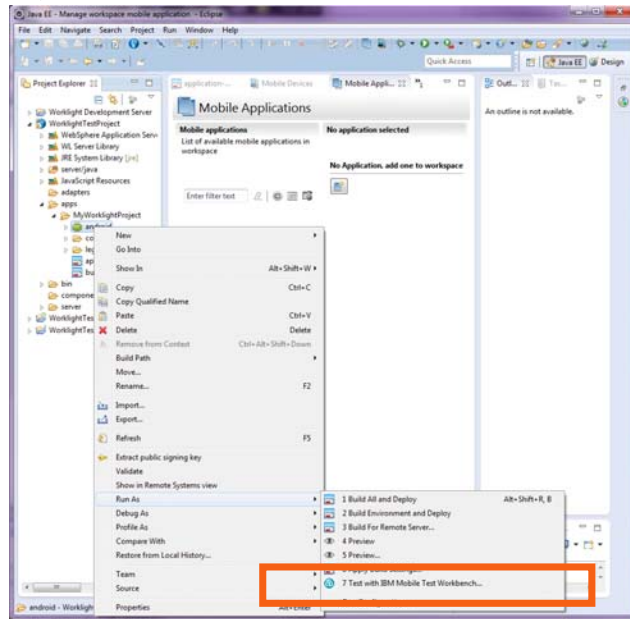
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Preparing the application for testing

- Before you can test an IBM Worklight hybrid application, make sure that:
 - If you test an Android application, you created the native Android project by using Worklight Studio “**Build Environment and Deploy**”, and you created the application binary (the APK file) by using the Android tools.
 - For more information about Worklight Android applications, see the “*Previewing your application on Android*” module.
 - If you test an iOS application, you created the Xcode project by using Worklight Studio “**Build Environment and Deploy**”, and the appropriate certificate is specified in the Xcode project if you want to test on a real device.
 - For more information about Worklight iOS applications, see the “*Previewing your application on iOS*” module.

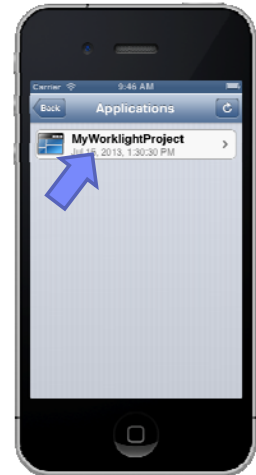
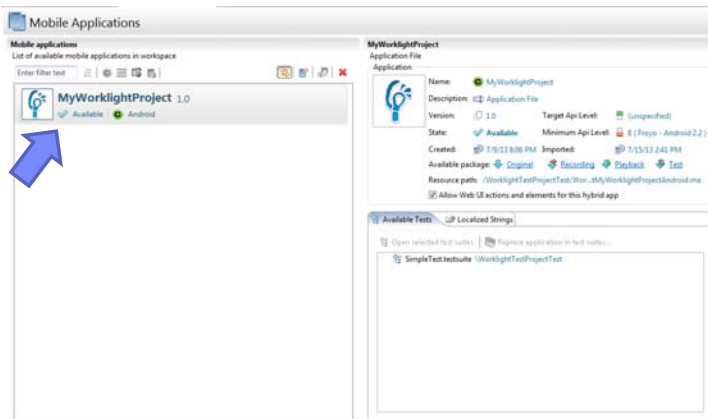
Preparing the application for testing

- Right-click the android, iphone, or ipad environment in your IBM Worklight application, and select **Run As > Test with IBM Mobile Test Workbench**.



Preparing the application for testing

- The test-ready application is now visible in the **Mobile Applications** view in the test workbench and also on the mobile client.



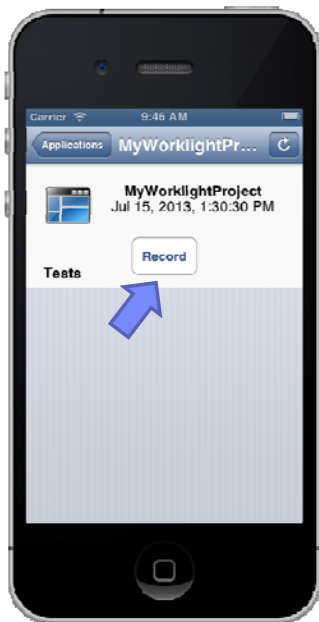
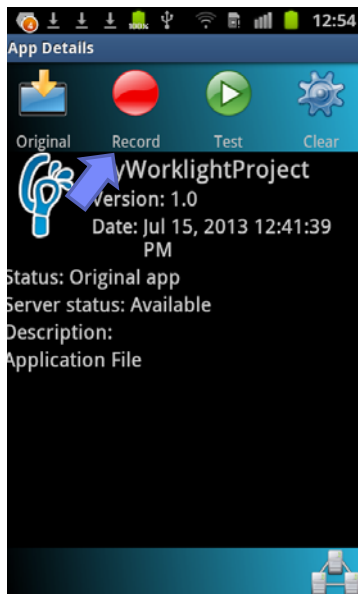
- The status of the application must be **Available** in the **Mobile Applications** view before you can start recording a test.

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Creating a test



- To start recording a test, select the application in the list of managed apps, and click **Record** in the mobile client on the device.



Creating a test

- The application runs on the device or emulator.
- Everything you do with the application is recorded and sent to the test workbench. The script records, for example, when you touch a button or enter text in an entry field.
- Close the application to stop the recording.
- A message is visible on the test workbench, which indicates that a new recording is available.



 There is a new incoming recording.
[Click here](#) to generate a test. 

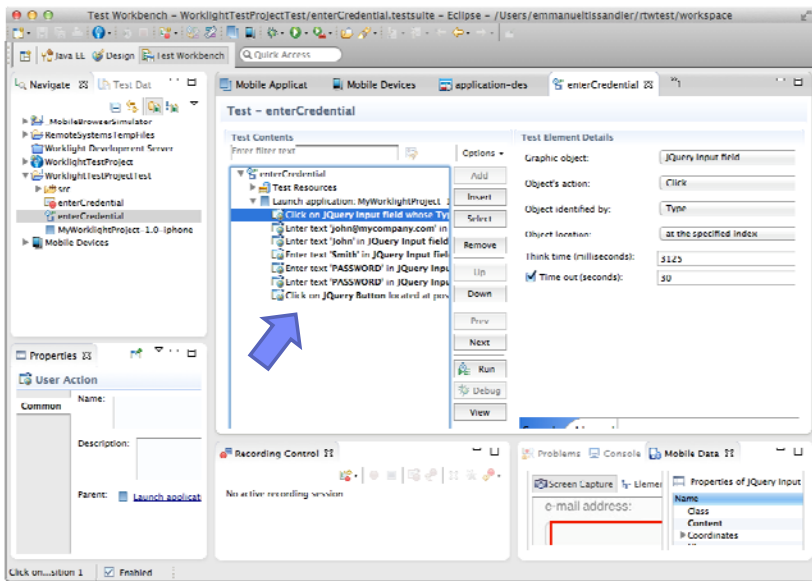
- Follow the instructions of the wizard to generate a test from the recording. You will be asked to store the test in the test project.
- For more information about how to create a test, see the topic [Creating a mobile test](#) in the IBM Worklight Information Center.

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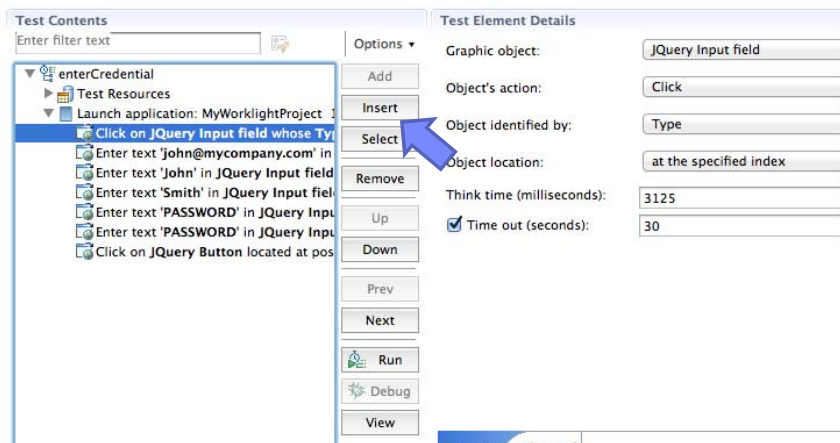
Editing a test

- After recording, you can edit the test in the natural language editor.



Editing a test

- You can edit the test for example to insert **verification points** (verify the value of a user interface element for example) or replace recorded test values with variable test data, or add dynamic data to the test.



- For more information about how to edit the test script, see the topic [Editing mobile tests](#) in the IBM Worklight Information Center.

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Running the test (1 of 2)

- Run the test to ensure that the app matches the expected behavior that is defined in *verification points*.
- During the run, each verification point is checked and receives a **pass**, **fail**, or **inconclusive** status.
- The available tests are visible in the mobile client, and you can run the test from this application.



Running the test (2 of 2)

- After the test is completed, a report is generated that shows the status of the test and all the verification points.
- You can read the report on the device or on the Eclipse test workbench.



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What's Next

- In this module, you learned how to set up and install the IBM Mobile Test Workbench for Worklight, and how to record and playback a first test.
- For more information about IBM Worklight functional testing and the IBM Mobile Test Workbench for Worklight, see the topic [Testing with IBM Worklight](#) in the IBM Worklight Information Center.

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