# Web app end-to-end demonstration



## Overview

The purpose of this demonstration is to experience an end-to-end flow:

1. A sample application that is pre-bundled with the MobileFirst client SDK is registered and downloaded from the MobileFirst Operations Console.
2. A new or provided adapter is deployed to the MobileFirst Operations Console.
3. The application logic is changed to make a resource request.

**End result**:

- Successfully pinging the MobileFirst Server.
- Successfully retrieving data using a MobileFirst Adapter.

### Prerequisites:

- A modern web browser
- *Optional*. MobileFirst CLI (download (file:////home/travis/build/MFPSamples/DevCenter/_site/downloads))
- *Optional*. Stand-alone MobileFirst Server (download (file:////home/travis/build/MFPSamples/DevCenter/_site/downloads))

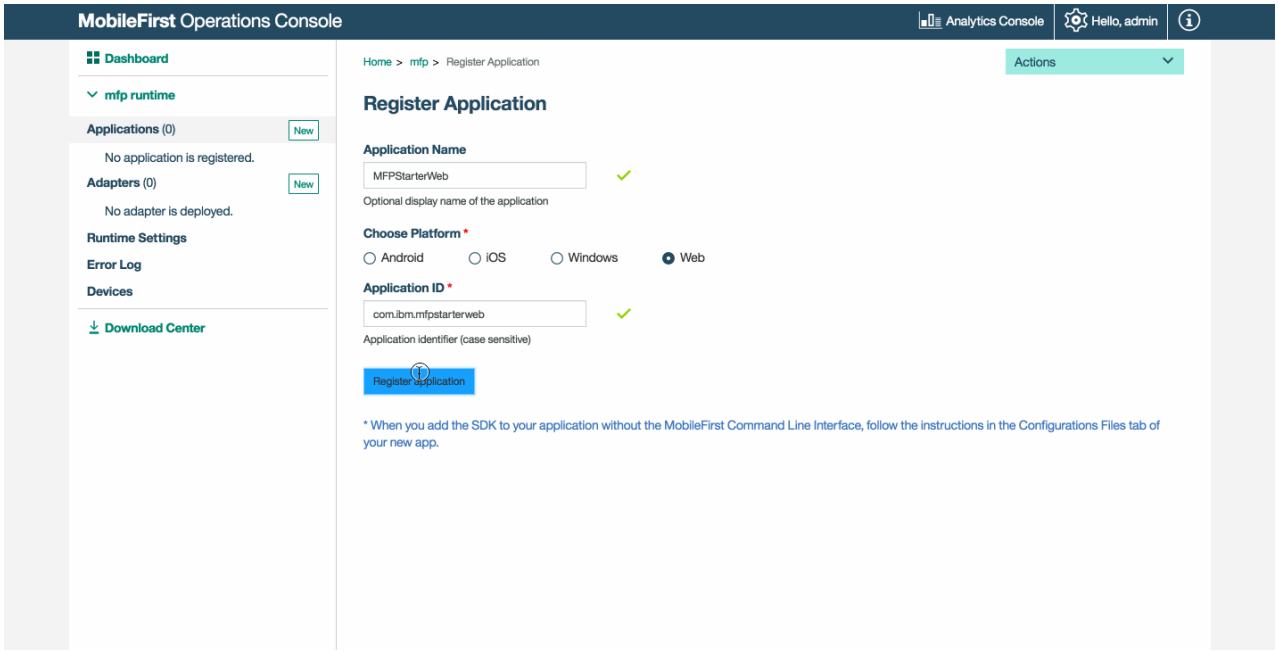
## 1. Starting the MobileFirst Server

Make sure you have created a Mobile Foundation instance (../../ibm-containers/using-mobile-foundation), or
If using the MobileFirst Foundation Development Kit (../../setting-up-your-development-environment/mobilefirst-development-environment), navigate to the server's folder and run the command: `./run.sh` in Mac and Linux or `run.cmd` in Windows.

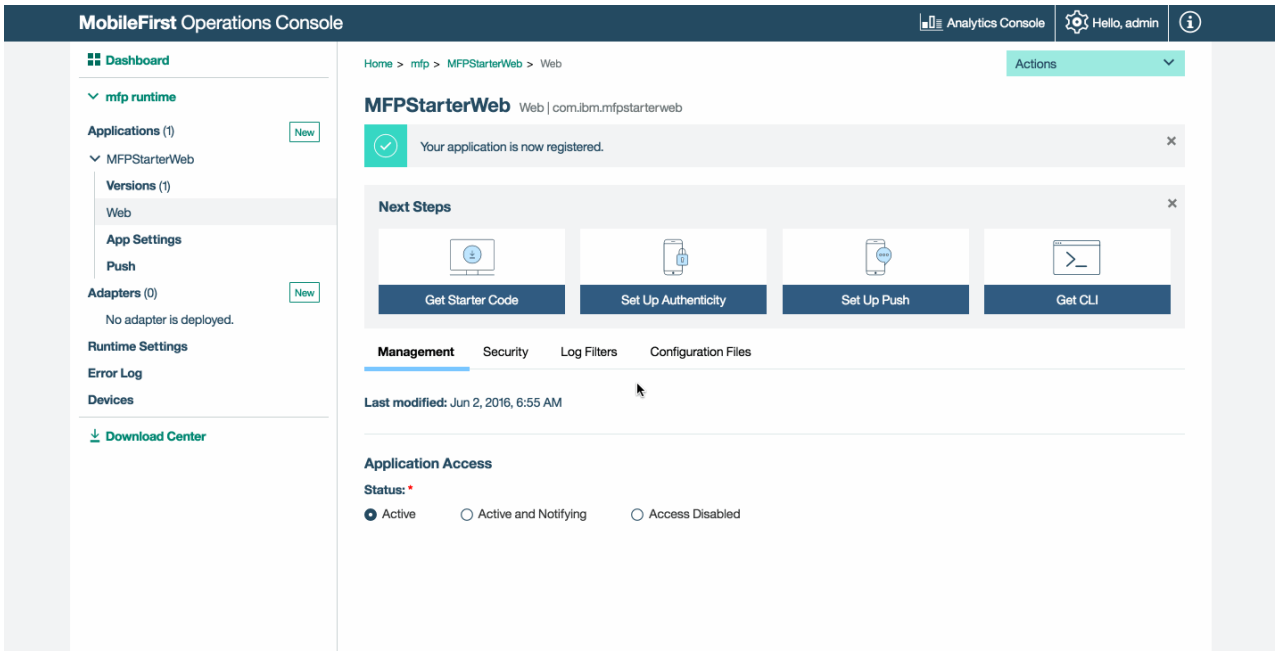
## 2. Creating and registering an application

In a browser window, open the MobileFirst Operations Console by loading the URL: `http://your-server-host:server-port/mfpconsole`. If running locally, use: http://localhost:9080/mfpconsole (http://localhost:9080/mfpconsole). The username/password are *admin/admin*.

1. Click the **New** button next to **Applications**
    - Select the **Web** platform
    - Enter **com.ibm.mfpstarterweb** as the **application identifier**
    - Click on **Register application**




2. Click on the **Get Starter Code** tile and select to download the Web sample application.




## 3. Editing application logic

1. Open the project in your code editor of choice.
2. Select the **client/js/index.js** file and paste the following code snippet, replacing the existing `WLAuthorizationManager.obtainAccessToken()` function:

```
WLAuthorizationManager.obtainAccessToken()
   .then(
      function(accessToken) {
         titleText.innerHTML = "Yay!";
         statusText.innerHTML = "Connected to MobileFirst Server";

         var resourceRequest = new WLResourceRequest(
            "/adapters/javaAdapter/resource/greet/",
            WLResourceRequest.GET
         );

         resourceRequest.setQueryParameter("name", "world");
         resourceRequest.send().then(
            function(response) {
               // Will display "Hello world" in an alert dialog.
               alert("Success: " + response.responseText);
            },
            function(response) {
               alert("Failure: " + JSON.stringify(response));
            }
         );
      },

      function(error) {
         titleText.innerHTML = "Bummer...";
         statusText.innerHTML = "Failed to connect to MobileFirst Server";
      }
   );
```

## 4. Deploy an adapter

Download this prepared .adapter artifact (../javaAdapter.adapter) and deploy it from the MobileFirst Operations Console using the **Actions → Deploy adapter** action.

Alternatively, click the **New** button next to **Adapters**.

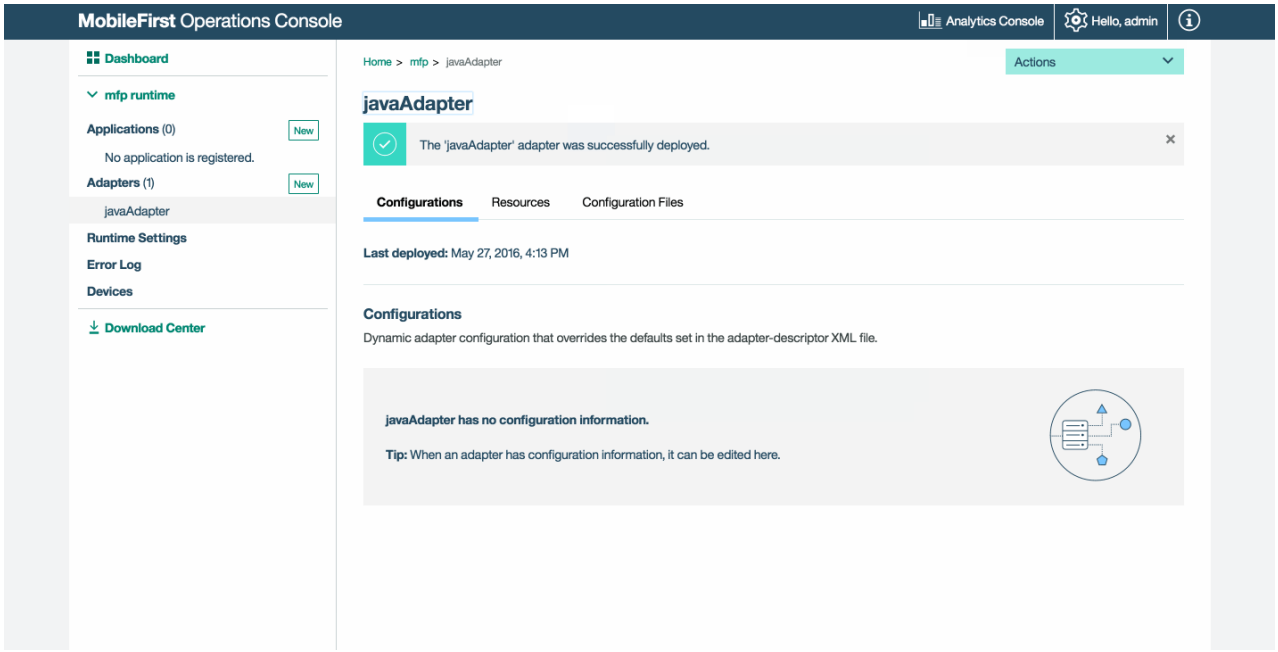
1. Select the **Actions → Download sample** option. Download the "Hello World" **Java** adapter sample.

   > If Maven and MobileFirst CLI are not installed, follow the on-screen **Set up your development environment** instructions.

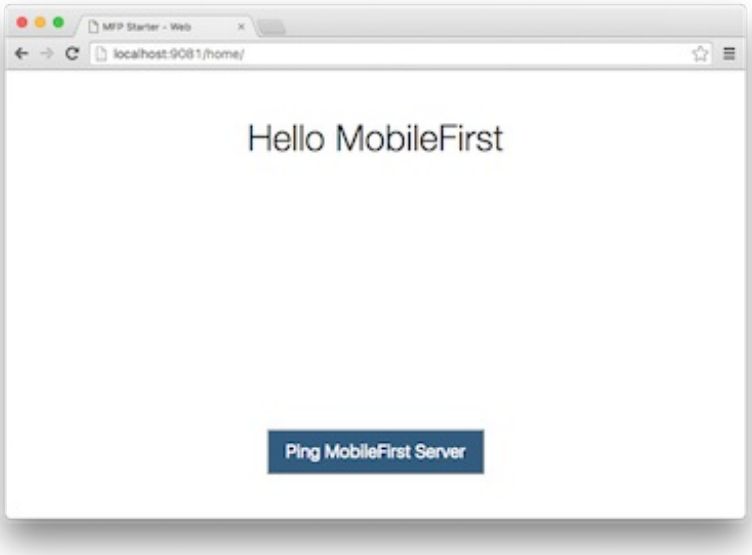
2. From a **Command-line** window, navigate to the adapter's Maven project root folder and run the command:

   ```
   mfpdev adapter build
   ```

3. When the build finishes, deploy it from the MobileFirst Operations Console using the **Actions → Deploy adapter** action. The adapter can be found in the **[adapter]/target** folder.




## 5. Testing the application




1. From a **Command-line** window, navigate to the **project's root → node-server** folder.
2. Run the command: `npm start` to install required Node.js configuration and start the Node.js server.
3. In your browser, visit the URL: http://localhost:9081/home (http://localhost:9081/home).

### Secure Origins Policy

When using Chrome during development, the browser may not allow an application to load if using both HTTP and a host that **is not** "localhost". This is due to the Secure Origins Policy implemented and used by default in this browser.

To overcome this, you can start the Chrome browser with the following flag:

```
--unsafely-treat-insecure-origin-as-secure="http://replace-with-ip-address-or-host:port-number" --user-data-dir=/test-to-new-user-profile/myprofile
```

- Replace "test-to-new-user-profile/myprofile" with the location of a folder that will act as a new Chrome user profile for the flag to work.

## Results

- Clicking the **Ping MobileFirst Server** button will display **Connected to MobileFirst Server**.
- If the application was able to connect to the MobileFirst Server, a resource request call using the

deployed Java adapter will take place.

The adapter response is then displayed in an alert.

## Next steps

Learn more on using adapters in applications, and how to integrate additional services such as Push Notifications, using the MobileFirst security framework and more:

- Review the Using the MobileFirst Foundation (../../using-the-mfpf-sdk/) tutorials
- Review the Adapters development (../../adapters/) tutorials
- Review the Authentication and security tutorials (../../authentication-and-security/)
- Review All Tutorials (../../all-tutorials)