

Integrating with Cloudant by using an adapter

What is Cloudant?

Cloudant is a NoSQL Database based on CouchDB that is included with the product as a component called IBM MobileFirst Cloudant Local Data Layer Edition. Cloudant is also available as a standalone installed product and as a Database as a Service (DBaaS) on IBM Bluemix and cloudant.com.

The Cloudant API is documented at <https://docs.cloudant.com/index.html>
(<https://docs.cloudant.com/index.html>)

Cloudant adapter

You can create and use a MobileFirst adapter to communicate with Cloudant.

The adapter within the sample that is provided with this module is an HTTP adapter.

- This adapter implements a subset of the Cloudant API.
- You can extend it to implement more Cloudant API

Sample Application

The sample module contains an application that demonstrates the use of the adapter to store, list, and query a set of names and ages in a Cloudant-hosted database.

Configuring the sample application

First, download and import the sample module.

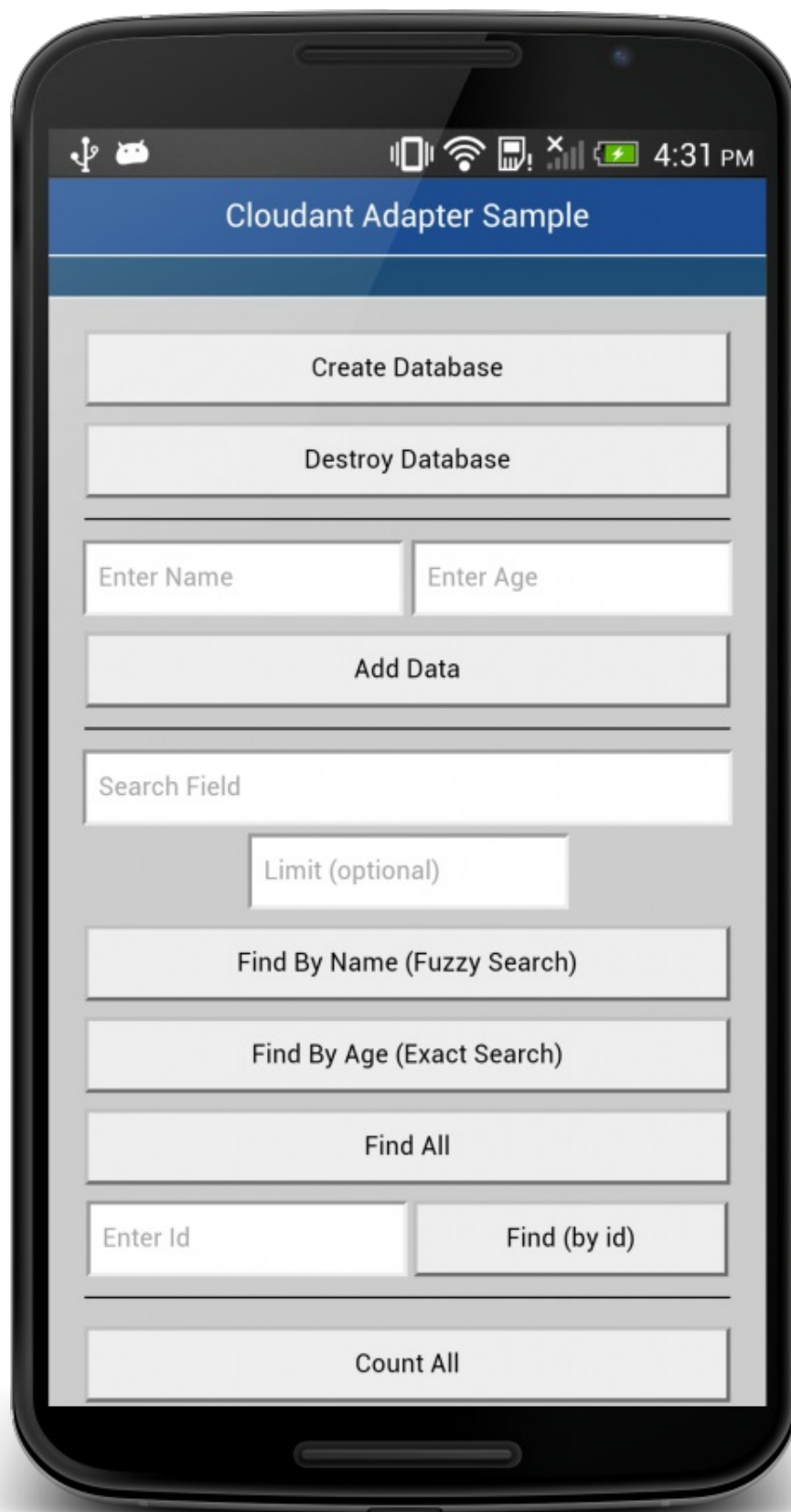
Then, open the `CloudantAdapterDemo/adapters/CloudantAdapter/CloudantAdapter.xml` file.

The adapter uses basic authentication to connect to the Cloudant database. Enter your database location and username and password into the `CloudantAdapter.xml` file. You can obtain this information from Cloudant.

To avoid exposing the user credentials in `CloudantAdapter.xml`, you can leverage Cloudant support for API keys and passwords.

```
1 <?xml vers
2 <wl:adapter
3   <displayM
4   <descript
5   <connect
6     <conn
7     <proc
8     <do
9     <po
10    <co
11    <so
12    <au
13    <
14    <
15
16
17    <
18  </au
19  <ma
20  <!--
21  <ss
22  <ss
23  -->
24  </conn
25 </connec
26 <procedu
27 <procedu
28 <procedu
29 <procedu
30 <procedu
31 <procedu
32 <procedu
33 <procedu
34 <procedu
35 <procedu
36 <procedu
37 </wl:adapte
```

Starting the sample



application and adapter

Right-click adapters/CloudantAdapter and select **Run As > Deploy MobileFirst Adapter**.

Right-click apps/CloudantSampleApp and select **Run As > Run on MobileFirst Development Server**.

From the MobileFirst Platform Operations Console, select **Preview as Common Resources** (or view the app in the environment of your choice).

Cloudant adapter methods

- `createdB (name)`

Returns JSON result statement

- `deletedB (name)`

Returns JSON result statement

- `getAllDocs (name, limit, include_docs)`

Arguments:

- `name` - database name
- `limit` - limit on the number of docs
- `include_docs` - whether or not to include the full body of the docs in the return

Returns JSON object with document information

- `updateDocs (name, updates)`

Arguments:

- `name` - database name
- `updates` - list of objects to create or update

Returns JSON result statement

- `createDoc (name, doc)`

Arguments:

- `name` - database name
- `doc` - JSON document to create

Returns JSON result statement

- `getDoc (name, docID)`

Arguments:

- `name` - database name
- `docID` - document ID

Returns JSON document

- `updateDoc (name, doc)`

Arguments:

- `name` - database name
- `docID` - document to update

Returns JSON result statement

- `createDesignDoc (name, docName, designDoc)`

Arguments:

- `name` - database name
- `docName` - design doc name
- `designDoc` - JSON design document to create

Returns JSON result statement

- `search (name, designDocName, viewName, limit, include_docs, query)`

Arguments:

- `name` - database name
- `designDocName` - design doc name
- `viewName` - view name
- `limit` - limit on number of results
- `include_docs` - whether or not to include the full body of the docs in the return
- `query` - the query

Returns JSON document with results

- `getView (name, designDocName, viewName, group)`

Arguments:

- `name` - database name
- `designDocName` - design doc name
- `viewName` - view name
- `group` - if results must be grouped

Returns JSON documents from the view

Using the Cloudant adapter in your app

To use the adapter in your app, copy the `CloudantAdapter` folder to your MobileFirst app.

Extend the adapter as needed with the functionality for your app.

Sample application

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/CloudantAdapterDemoProject.zip>)
the Studio project.