

Exercise 1 - Working with Couchbase Documents

Exercise 1.a - Starting a Lucee Server

1. In your Terminal change directories to the `/path-to/build-your-first-couchbase-application/exercises/`
 2. Start a Lucee server by running the command `box server start`
 3. This will launch your default web browser with the `exercises` directory as the root. Click on [Exercise 1 - Working with Couchbase Documents](#)
 4. Browse around the site and take look at all of the different sections that you will be creating
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Exercise 1.b - Connecting to Couchbase

As with any database we need to make a connection to the database. With couchbase we will create a connection the the `default` bucket and maintain that connection in the application scope.

1. Open `/Application.cfc` in your IDE
2. Add the following code to the `onRequestStart` method

```
// create a connection to the default bucket if it does not already exist
if(!structKeyExists(application, "couchbase")){
    application['couchbase'] = new cfCouchbase.CouchbaseClient({
        'servers' = ["http://127.0.0.1:8091"],
        'bucketName' = "default"
    });
}
```

3. We need to make sure that when our application is shutting down that we close the connections to the Couchbase bucket at the same time. Add the following to the `onApplicationEnd` method

```
// if the couchbase connection is present close it's connections
if(structKeyExists(arguments.appScope, "couchbase")){
    application.couchbase.shutdown( 10 );
}
```

Exercise 1.c - Exploring Documents

Now that you have made a connection to `default` bucket on your Couchbase Server.

1. Lets create and retrieve some documents. Navigate to </exercise1/console.cfm> in your browser.
2. Create a document with an id of `test`, create a JSON structure that contains the following values:

```
{
  "doc_type": "test",
  "first_name": "",
  "last_name": "",
  "email": "",
  "phone": ""
}
```

3. Click the "Upsert" button
4. Verify that the document was created by going to the Couchbase Server Admin Console <http://127.0.0.1:8091/> and browse to [Data Buckets](#).
5. Click the "Documents" button next to the **default** bucket
6. Lookup your `test` document.

Note: Document ID's should be all lowercase, with only letters, numbers, underscores, dashes and colons with a maximum length of 256 characters. The document content must be valid JSON.

Exercise 1.d - Import Example Data

Before building the rest of our site we need to populate our default bucket with some data.

1. In your Terminal change directories to the Couchbase server directory

Mac OS X

```
cd /Applications/Couchbase Server.app/Contents/Resources/couchbase-core/bin
```

Windows

```
C:\Program Files\Couchbase\Server\bin
```

2. Import / Restore the database. Replace `[FULL_PATH_TO_FILES]` with the directory that you copied the files into.

Mac OS X

```
./cbrestore ~/[FULL_PATH_TO_FILES]/build-your-first-couchbase-application/data/backup/ http://127.0.0.1:8091 --bucket-source default
```

Windows

```
cbrestore C:\[FULL_PATH_TO_FILES]\build-your-first-couchbase-application\data\backup\ http://127.0.0.1:8091 --bucket-source default
```

3. Verify that the data was imported by going to the Couchbase Server Admin Console <http://127.0.0.1:8091/> and browse to [Data Buckets](#). You should see ~149K documents in the default bucket.