Exercise 1 - Working with Couchbase Documents

Exercise 1.a - Starting a Lucee Server

1. In your Terminal change directories to the `~/[FULL_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 Launch next to 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 `exercises/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 it's time to create

some documents.

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, underscoes, 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. Unzip the `backup.zip` file

2. 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
```

3. 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/backup/ http://127.0.0.1:8091 --bucket-so
urce default
```

Example

```
./cbrestore ~/Desktop/build-your-first-couchbase-application/backup/ http://127.0.0.1:8091 --bucket-source default
```

Windows

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

4. 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.