Workshop 3 – Building a Full-stack Application

Agenda

- Create a RESTful API backend
- Create an Angular2 UI

Couchbase

DEVELOPER COMMUNITY

Platforms

- Java - Spring
- .NET - ASP.NET WebAPI
- Node.js - Express.js

- Angular 2 (UI)
- Couchbase (document database)

Couchbase
DEVELOPER COMMUNITY

Exercise: Fill in the blanks

- Fill in the blanks to make the application work

- Checkout the code from Github
  - https://github.com/couchbaselabs/workshop/tree/master/connect2016/developer/03

- The source code is also available on USB sticks

Exercise: Getting Started

We're going to fill in one of the blanks together, one for each language/platform.

The rest of the them are up to you.

At the end of the lab, your app should be able to <u>list, add, edit, and delete.</u>

If you have questions or are running into a problem, we'll be walking around helping you individually.

Asynchronous

http://developer.couchbase.com/documentation/server/4.5/sdk/**dotnet**/async-programming.html

.NET:

async/await/Task

Node:

callbacks

Java:

spring-data-couchbase

N1QL

http://developer.couchbase.com/documentation/server/4.5/sdk/**dotnet**/n1ql-queries-with-sdk.html

.NET:

QueryRequest

Node:

N1qlQuery

Java:

N1qlQuery

Scan Consistency

http://developer.couchbase.com/documentation/server/4.5/architecture/querying-data-with-n1ql.html

NotBounded

- Default (speed)

RequestPlus

- Accuracy (slower)

AtPlus

- Speed and accuracy (more work)

Check And Set (CAS)

http://developer.couchbase.com/documentation/server/4.5/sdk/**dotnet**/document-operations.html

.NET:

```
    new Document<T> { Cas = … }
```

Node:

```
    bucket.replace(‘key’, { document}, {cas: … }, … )
```

Java:

@Version attribute (spring-data-couchbase)

Error handling

.NET:

Result objects include: Exception, Success, Message

Java:

try/catch Exception

Node:

Callbacks - *function(err, result) { }*

Java

- Look for TODOs

- Files included:
    - application.properties
    - PersonConfig.java
    - PersonController.java

.NET

- Look for TODOs

- Files included:
  - CouchbaseConfig.cs
  - Web.config
  - Person.cs
  - PersonController.cs

Node

- Look for TODOs

- Files includes:
  - default.json
  - api.js

Angular

- Look for TODOs
- Files included:
  - utility.ts
  - item.component.ts
  - item.component.html
  - list.component.ts
  - list.component.html

How to execute

Execute Angular 2: `ng serve`

Execute RESTful API backend:

- Java: `mvn spring-boot:run`
- .NET: F5 (or ctrl+f5) from Visual Studio
- Node: `node app.js`

Questions