September 26, 2018

Milestone 2

Sequence of major functionality from user interface to persistence

This week we connected our application to MLab. We are able to run the application to start the connection and enter and remove some hardcoded data into our database and `console.log` the events. There is no user interface yet.

Lessons learned

- MLab and MongoDB
- Connecting MLab with a java application

Decision log and consequence of the decision

We decided to use MLab because we had some very basic familiarity with it and MongoDB, and wanted to learn more about those and NoSQL.

Discussion about the lessons learned

We were only a bit familiar with MLab, as in someone else had set it up in a different group project and we barely interacted with it. We had to consult several tutorials in how to get this set up. Aaron and Artur were the ones who did the majority of the work this week as Megan was at a conference for the good majority of the time.

Quick Access

Project Explorer

- campusConnect [se352 master]
  - src/main/java
  - src/main/resources
  - src/test/java
  - JRE System Library [JavaSE-1.8]
  - Maven Dependencies
  - doc
  - src
    - main
      - java
        - edu
          - depaul
            - cdm
              - se
                - campusconnect
                  - CampusConnectApplication.java
                  - Course.java
                  - CourseService.java
                  - ICourse.java
              - resources
    - test
  - target
  - mvnw
  - mvnw.cmd
  - pom.xml

CampusConnectApplication.java

```java
19          CampusConnectApplication campusConnectApplication = new CampusConnectApplication();
20
21          campusConnectApplication.createExample();
22          campusConnectApplication.showEntities();
23          campusConnectApplication.deleteExample();
24          campusConnectApplication.showEntities();
25      }
26
27      private void createExample() {
28          CourseService services = new CourseService();
29          Course course = new Course();
30          Course course2 = new Course();
31          course.setCourseID(66666);
32          System.out.println("Setting course id to 1234567890");
```

Servers **Console** **Search**

```
<terminated> se352 (7) [Maven Build] /Library/Java/JavaVirtualMachines/jdk1.8.0_181.jdk/Contents/Home/bin/java (Sep 26, 2018, 4:04:44 PM)
[INFO] Scanning for projects...
[INFO]
[INFO] -------------------< edu.depaul.cdm.se:campusConnect >-------------------
[INFO] Building campusConnect 0.0.1-SNAPSHOT
[INFO] --------------------------------[ jar ]---------------------------------
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ campusConnect ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Copying 1 resource
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.7.0:compile (default-compile) @ campusConnect ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ campusConnect ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /Users/megan/Documents/projects/se352/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.7.0:testCompile (default-testCompile) @ campusConnect ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.19.1:test (default-test) @ campusConnect ---
[INFO]
[INFO] --- maven-jar-plugin:3.0.2:jar (default-jar) @ campusConnect ---
[INFO] Building jar: /Users/megan/Documents/projects/se352/target/campusConnect-0.0.1-SNAPSHOT.jar
[INFO]
[INFO] --- spring-boot-maven-plugin:2.0.4.RELEASE:repackage (default) @ campusConnect ---
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 1.866 s
[INFO] Finished at: 2018-09-26T16:04:46-05:00
[INFO] ------------------------------------------------------------------------
```

pom.xml - campusConnect

ObjectLabs Corporation

1000+ Projects   27-Appideas   flexbox stuff   Github   CoverLetters   Slack   LinkedIn   it-ebooks   Resume

Projec   L2-Database...   SE462 Proje...   Class Notes...   Untitled Diag...   CampusCon...   mLab: Cloud...

Collection: courses

| Documents | Indexes | Stats | Tools |

Documents   Delete all documents in collection   + Add document

--- Start new search ---

All Documents

Display mode: ● list ○ table (edit table view)

records / page 10   [1 - 3 of 3]

```
{
    "_id": {
        "$oid": "5bab2170b353c74f8806ea53"
    },
    "1234567890": 1111111111
}

{
    "_id": {
        "$oid": "5bab2cfb36bc0daec670ae6b"
    },
    "1234567890": 1111111111
}

{
    "_id": {
        "$oid": "5bab2cfc36bc0daec670ae6c"
    },
    "1234567890": 76543
}
```

records / page 10   [1 - 3 of 3]

Quick Access

CampusConnectApplication.java   **CampusConnectApplicationTests.java**   **campusConnect/pom.xml**

```java
13  @SpringBootApplication(exclude = {MongoAutoConfiguration.class, MongoDataAutoConfiguration.class})
14  public class CampusConnectApplication {
15
16      public static void main(String[] args) {
17          SpringApplication.run(CampusConnectApplication.class, args);
18
19          CampusConnectApplication campusConnectApplication = new CampusConnectApplication();
20
21          campusConnectApplication.createExample();
22          campusConnectApplication.showEntities();
23          campusConnectApplication.deleteExample();
24          campusConnectApplication.showEntities();
25      }
26
27      private void createExample() {
28          CourseService services = new CourseService();
29          Course course = new Course();
30          Course course2 = new Course();
31          course.setCourseID(76543);
32          System.out.println("Setting course id to 1234567890");
33          System.out.println("Setting course2 id to 1111111111");
34
35          course2.setCourseID(1111111111);
36          services.saveCourse(course2);
37          services.saveCourse(course);
38      }
39
40      private void deleteExample() {
41          CourseService services = new CourseService();
42          if (services.deleteCourse(1234567890) > 0)
```

Outline:
- edu.depaul.cdm.se.cam
  - CampusConnectAppli
    - main(String[]) : void
    - createExample() : vo
    - deleteExample() : voi
    - showEntities() : void

Markers **Properties** **Servers** **Data Source Explorer** **Snippets** **Problems** **Console**

CampusConnectApplication [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_144.jdk/Contents/Home/bin/java (Sep 26, 2018, 1:53:41 AM)

```
2018-09-26 01:53:47.156  INFO 44742 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port(s): 8080 (http) with
2018-09-26 01:53:47.162  INFO 44742 --- [           main] e.d.c.s.c.CampusConnectApplication       : Started CampusConnectApplication in 5.327 se
2018-09-26 01:53:47.517  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster created with settings {hosts=[ds115:
Setting course id to 1234567890
Setting course2 id to 1111111111
2018-09-26 01:53:47.587  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster description not yet available. Waiti
2018-09-26 01:53:47.825  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:1
2018-09-26 01:53:47.872  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.cluster               : Monitor thread successfully connected to ser
2018-09-26 01:53:48.312  INFO 44742 --- [           main] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:2
2018-09-26 01:53:48.407  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster created with settings {hosts=[ds115:
2018-09-26 01:53:48.418  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster description not yet available. Waiti
2018-09-26 01:53:48.595  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:3
2018-09-26 01:53:48.639  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.cluster               : Monitor thread successfully connected to ser
[edu.depaul.cdm.se.campusconnect.Course02ba1209b, edu.depaul.cdm.se.campusconnect.Course07c241a9f, edu.depaul.cdm.se.campusconnect.Course08fd12f
2018-09-26 01:53:49.009  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster created with settings {hosts=[ds115:
2018-09-26 01:53:49.012  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster description not yet available. Waiti
2018-09-26 01:53:49.184  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:4
2018-09-26 01:53:49.228  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.cluster               : Monitor thread successfully connected to ser
2018-09-26 01:53:49.531  INFO 44742 --- [           main] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:5
2018-09-26 01:53:49.569  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster created with settings {hosts=[ds115:
2018-09-26 01:53:49.570  INFO 44742 --- [           main] org.mongodb.driver.cluster               : Cluster description not yet available. Waiti
2018-09-26 01:53:49.749  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:6
2018-09-26 01:53:49.786  INFO 44742 --- [.mlab.com:15263] org.mongodb.driver.cluster               : Monitor thread successfully connected to ser
2018-09-26 01:53:50.081  INFO 44742 --- [           main] org.mongodb.driver.connection            : Opened connection [connectionId{localValue:7
[edu.depaul.cdm.se.campusconnect.Course01f992a3a, edu.depaul.cdm.se.campusconnect.Course030bf26df, edu.depaul.cdm.se.campusconnect.Course0261bd7b
```

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