Spring Boot Microservice Enterprise Applications with Java

Contents

Assignment 2

All assignments must be submitted online before the deadline. See online for due date.

Note: Late assignments are not accepted

Goals:

1. REST API documentation and implementation
2. SOA and Spring implementation with hardcoded data
3. Multiple individual Spring boot projects

It is ok if in future assignments you have to modify/deviate from your definitions as you discover and learn more things. What you implement may also be different from what you documented in Assignment 1.

Define the REST APIs for your movies application. These need to be well thought out so that they can support all the features you intend to implement so think about your entire application and how you wish to interact with it. Then define the APIs as in the TBTF Bank example. Defining all your APIs will help you think through all the use cases you have for the features you have picked. Make sure to define your error reporting strategy. This will be submitted as a word file or PDF.

Implement and test the APIs you defined above using Spring Boot. Implement the first pass for all features in your application. You will iteratively refine these over time until the final.

Create Maven projects and implement the mandatory movies list feature you defined in your technical design from Assignment 1 (you do NOT need to implement everything yet, let us make sure you are on the right track). For now you can have the implementation return some hard-coded values. For example

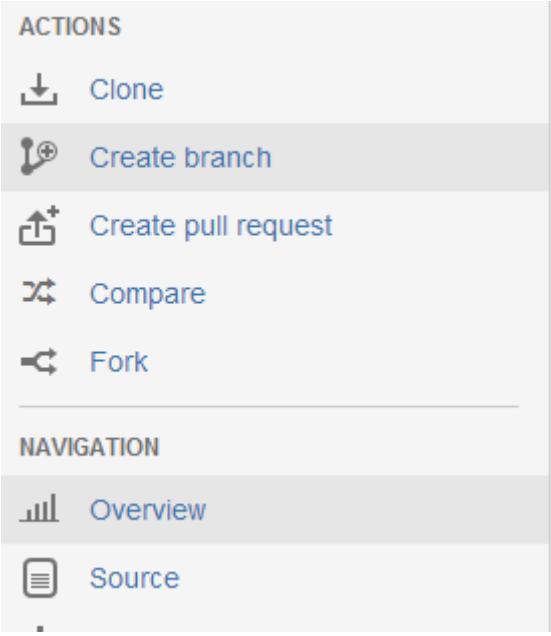
trying to fetch movies could always return the same value that you hard-coded. We will learn how to connect to a database in the next assignment. Your tests must cover unexpected scenarios as well (**test driven development**). You may mock your interfaces as well if you prefer. (Junit testing is required, manual test for REST APIs is ok)

When submitting code use the repo you created in Assignment 1. Your folder hierarchy should be something like:

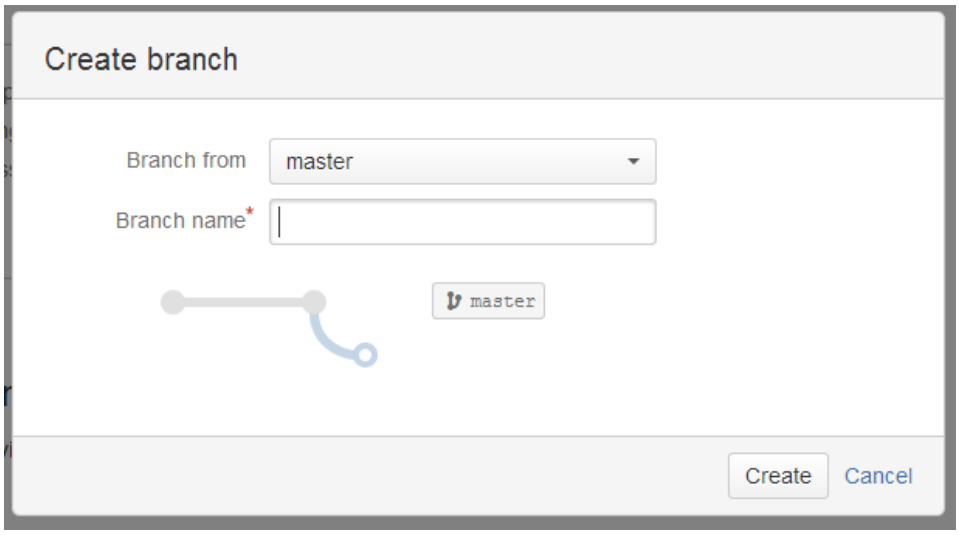
<firstname>-<lastname>-movies/<Microservice1-name>

<firstname>-<lastname>-movies/<Microservice2-name>

Once you are satisfied and ready to submit your assignment, please create a "branch" in Git and name it "assignment2" (On the BitBucket website click the "Branch" and Branch[1] from master as shown).



[1] http://git-scm.com/book/en/Git-Branching-Basic-Branching-and-Merging



The branch is what I will use to grade. You can continue to work on master and I will only refer this branch while grading.

Submit Assignment 2 in UCSC Extension Online to indicate that your Git repo is ready. Also attach the word file or PDF for the API documentation.

Grading

Points	Description
10	REST API documentation
15	Maven projects creation and correct POM file, Java interface definitions and implementation for the chosen services (minimum 2 microservices) using Spring Boot
15	JUnit Test case and code coverage
40	Total

*Java programming clarity, style, following coding conventions, Java docs etc are part of any code you write and apply to all assignments where you are writing code