

## Spring Boot Microservice Enterprise Applications with Java

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### Assignment 1

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

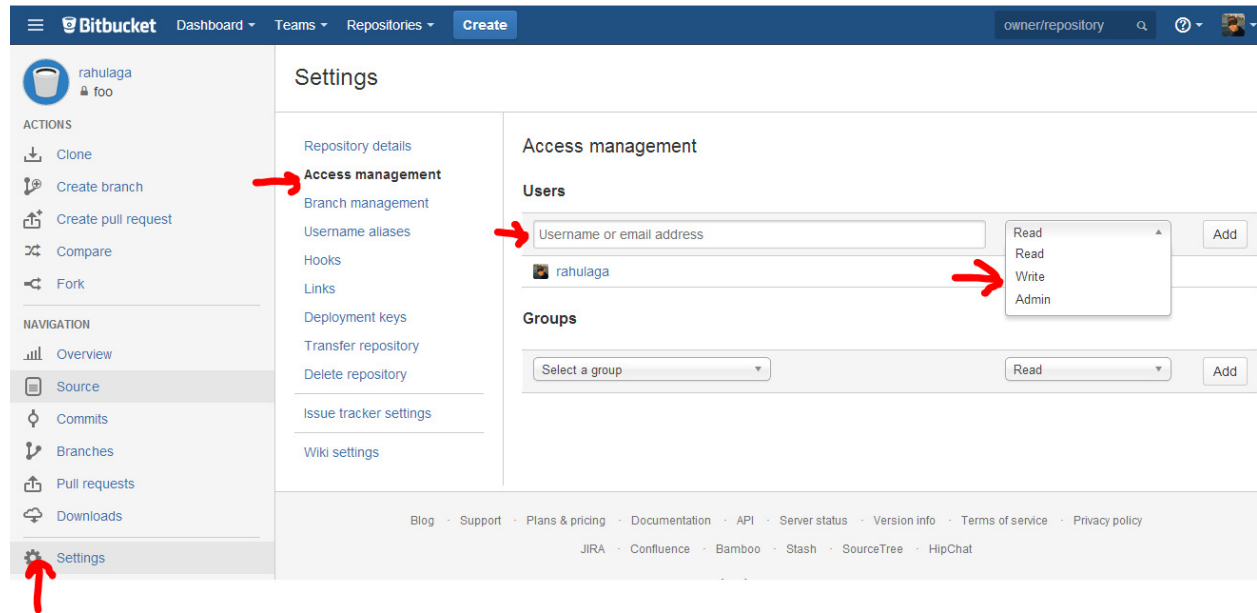
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| <b>Note: Late assignments are not accepted</b> |
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#### Part 1

Create a new Git repo on Bit Bucket and name it *<firstname>-<lastname>-movies*. For example john-doe-movies

This is important so that I can recognize your work and grade it correctly! Just add a README file for now.

Invite me to this repo with Write access. You can remove me once you receive your final grade. **My username: rahulaga**



## Part 2

This is to create a **technical design document**.

### Feature Selection

Starting from the movie site features you looked at and the class discussions please short-list a set of 4 to 6 features you would like to implement in this class. One **mandatory feature** is the movies list/movie browsing feature that shows movie names, show times and theatres playing. The features you pick must be connected to each other in some way so that in your class presentations/demos you can present a story. Do not choose features where some static info is shown (eg: About us, Careers/Jobs etc). For each feature that you pick determine the scope. For example for the mandatory movies list feature here is the scope:

- Browse all movies available in the system
  - Browse all theatres available in the system
  - Filter movies by name
  - Filter theatres by name
  - Browse all movies playing in a particular theatre
  - Browse all theatres playing a particular movie
- You may expand this example scope to include other aspects like filtering by location, time etc if you wish and count it as an additional feature
  - You will try to implement them in the following weeks

### SOA and Microservices Deployment

Then based on the n-tier Service Oriented Architecture, define how you propose to break down your system into Services and how they will interact and depend on each other. Use diagrams as in our TBTF

Bank example to show service dependencies. Additionally you may define some of the attributes for your objects as well. For example you are likely to have Movie and Theatre objects.

This will be your technical specification and serve as a guide as you implement it in the remaining weeks. Don't worry about Spring yet (next assignment).

Also define your components and Microservices deployment plan (discussed in Class 2).

### *Test Cases*

Create a section that briefly documents some of the major test cases you will require for the features that you have picked. Think about how you will test the Services that you are defining.

**UML Diagrams are not required. Whatever will help you implement the system in the coming weeks is what matters. The doc is meant to help you think through the system you will implement. Don't create diagrams just for me to grade!**

Create a document (4-8 pages) for this assignment. Upload in the online portal. Please upload a Microsoft Word or PDF file.

Please include references and they do not count in your page limit.

### *Grading*

| Points | Description   |
|--------|---|
| 5      | Part 1 - Git  |
| 35     | Part 2 <ul style="list-style-type: none"><li>• Features picked, their description and scope of each feature</li><li>• n-tier SOA architecture</li><li>• Microservices architecture</li><li>• Test case details</li><li>• Document organization, clarity and readability</li></ul> |
| 40     | Total   |