

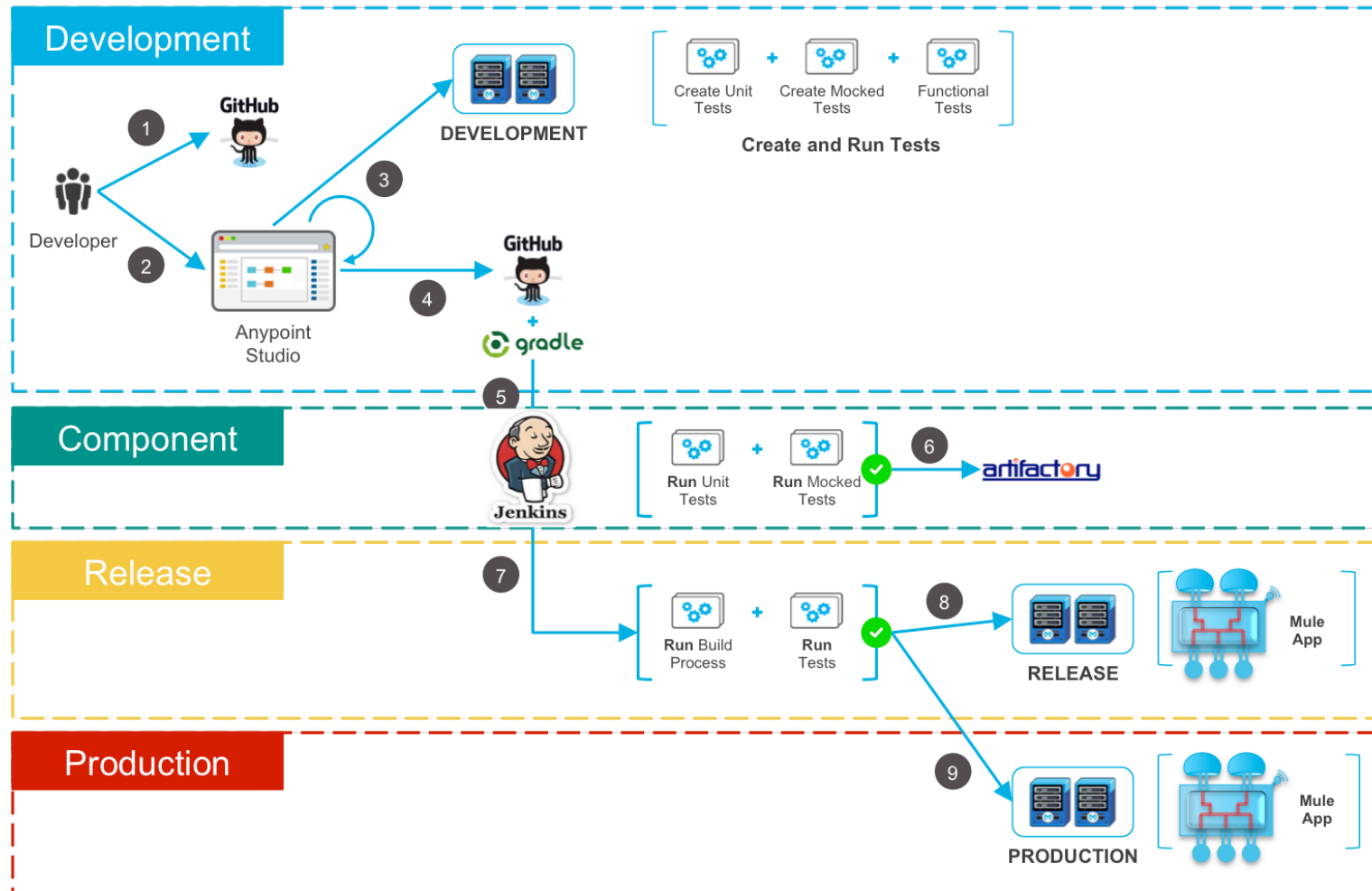


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**SCHOOL OF INFORMATICS,  
COMPUTING, AND ENGINEERING**

## **B 649 SGA Assignment 3 Projects**

Sept 19<sup>th</sup> 2017



DevOps example with Anypoint: Source MuleSoft

# Airavata DevOps

- <https://github.com/airavata-courses/spring17-devops/wiki>



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# Project Idea: 1

- Use Current Airavata Ansible Scripts:
  - <https://github.com/apache/airavata/tree/master/dev-tools/ansible>
- Integrate them with Terraform - (<https://www.terraform.io/>)
- Report the Advantages



# Project Idea 2:

- Evaluate previous containerization efforts approaches on Airavata PGA.
- Pick the best one, or write one from scratch.
- Contribute a working docker maven integration to airavata pga develop branch



# Project Idea 3:

- Evaluate previous containerization efforts approaches on Airavata Core (Idea 2 focuses on PGA).
- Pick the best one, or write one from scratch.
- Contribute a working docker maven integration to airavata develop branch



# Idea 4: Load Balance Airavata PGA

- Referring to implementation at <https://github.com/airavata-courses/spring17-laravel-portal/wiki>
- Load balance Airavata PGA



# Idea 5:

- Use Airavata API to develop a Command Line Interface to submit a job.
- Learn using [testdrive.airavata.org](https://testdrive.airavata.org)
- Reproduce experiment submission using a unix command line interface





# Idea 6: Improvement

- Change PGA + Registry to show more details
- <https://issues.apache.org/jira/browse/AIRAVATA-1870>



# Allocation Manager

- Faculty would like to use Apache Airavata to teach classes and would like the ability to assign and manage allocations to their users to make sure that a few users don't use up the entire supercomputing allocation for the class. Students who participate in this activity will develop a new Apache Airavata component that will include a database backend, middleware, and an API for the component.
- The Allocation Manager enables tenant gateways define allocation policies and available resources. Users of gateways (typically researchers and educators) can request appropriate resources to accomplish their research objectives by providing a justification.



# Use cases

- <https://issues.apache.org/jira/browse/AIRAVATA-2108>
- <https://cwiki.apache.org/confluence/display/AIRAVATA/%5BGsoc+Proposal%5D+Resource+Allocation+Manager+for+Apache+Airavata>





# Office Hours

**Fridays 1.30pm to 5pm**

CIB MP-B

We will be happy to answer questions  
before on airavata mailing lists

[dev@airavata.apache.org](mailto:dev@airavata.apache.org)



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