Challenge for Cloud DevOps

★ **Deploy an EC2 Machine using CFT/TF.**
- ○ Install Java8 and Jenkins server using Ansible.
  - ■ No passwords should be used while connecting to the machine.(configure ansible.cfg according to not use the password in the command line)
  - ■ Jenkins UI configuration can be done manually. No need to automate that part.

★ **Create a pipeline in the jenkins you have deployed.**
- ○ Retrieve Source code from VCS(Github or anything of your choice)
  Case 1:
- ○ Write a lambda function (python) to Add, Subtract, Multiply, and Divide two numbers.

  --> Ask user to input two numbers and the operator (+, −, *, /). Based on the input program should compute the result and display the output.

  --> Write the test case to validate any operator's functionality and then deploy the code in AWS (lambda) with Jenkins.

  Case 2:
- ○ Build a docker image (Any image which can run a web application service)
  - ■ Example: A node:12/python:3.6(with flask application) image which returns a message("Hello Airbus") when we curl it.
    Note: You should write the flask application or node js application which returns the data.
    - ● *Python Flask: Please write Class structured code while implementing.*
- ○ Test the docker image
  - ■ Testing is basically Running the docker image, checking the status of the service. Curl and check if it is returning information(message body="Hello Airbus"), and check the status code as well.
- ○ The stage results should be published in a slack or other communication channel.