

# Deployment 8

**Time to complete a full pipeline of technology you have learned throughout the course. Complete the required tasks below to complete the deployment.**

## Task 1:

- Create 3 EC2's, one EC2 will be a Jenkins master and second EC2 is a Jenkins agent and the third you will use for production.
  - The EC2's are not required to be in a private subnet for this deployment.
  - On the third EC2, install docker (this will be for your application).

## Task 2:

- Figure out how to build the application and then create your build step.
  - You may create the application on the EC2 or create an image of the application front and backend.

## Task 3:

- Now create a test step that will test the application front end. (Only one test is necessary).
  - Add encrypted test results to your Github repository.

## Task 4:

- Create an image of the application and push the image to Dockerhub

## Task 5:

- Create the application on the third EC2 and run a security check on the application.
- Encrypt and add the security report to your repository.
- Create a cloudwatch alarm for CPU utilization. Install stress-ng on the EC2 and stress the CPU to generate a report.
- Encrypt and add the cloudwatch report to your repository.