Kura Labs Cohort 4
Deployment 3

Welcome to Deployment 3! In the first two deployments, we manually uploaded the source code to AWS EB. Let's start automating more of that pipeline.

Be sure to document each step in the process and explain WHY each step is important to the pipeline.

1. Fork the Deployment 3 repository to your GitHub account
2. Create a user in AWS IAM that has administrator privileges
    a. *STEPS HERE*
3. Create an EC2 and install Jenkins onto it
4. Install and configure AWS CLI onto the EC2
    a. `$curl "https://awscli.amazonaws.com/awscli-exe-linux-x86_64.zip" -o "awscliv2.zip"`
    b. `$unzip awscliv2.zip`
    c. `$sudo ./aws/install`
    d. `$aws --version`
    e. `$sudo su - jenkins -s /bin/bash`
    f. `$aws configure`
        i. Enter the "Access Key ID" of the user created in step 2
        ii. Enter the "Secret Access Key" of the user created in step 2
        iii. Region: us-east-1
        iv. Output format: json
5. Install EB CLI
    a. `$pip install awsebcli --upgrade --user`
    b. `$eb --version`
6. Create a Multi-Branch pipeline
7. Connect GitHub repository to Jenkins

8. Create an EB environment in the terminal
    a. $cd /var/lib/jenkins/workspace/{{The name of your project}}/
    b. $eb init
        i. Select: us-east-1
        ii. Press enter
        iii. Select: Python
        iv. Select: (The latest version of python available)
        v. Select: N (for CodeCommit)
    c. $eb create
        i. Take the default options for the next 3 questions by hitting enter but remember the environment name
        ii. Spot Fleet: No
9. Verify that the application is running by navigating to AWS Elastic Beanstalk and opening the URL
10. Add a “Deployment” stage to the pipeline in your Jenkinsfile:

```
stage ('Deploy') {
     steps {
          Sh '/var/lib/jenkins/.local/bin/eb deploy {{Your
ENVIRONMENT name }}'
          }
     }
```

11. Modify the application
    a. VARIATION #1
12. Deploy the modified application through the pipeline
    a. Navigate to the project in the Jenkins GUI
    b. Press “Build Now”
13. Navigate back to the application and refresh the page.

Submit your diagram and documentation through the LMS. Be sure to include all observations you had throughout the deployment process, any issues that needed troubleshooting, and anything that could have been improved on.