

Working with a DevOps CI/CD Pipeline in AWS

Introduction

In this lab, we will create a Continuous Integration/Continuous Delivery pipeline using AWS, and then use that pipeline to deploy a new version of our website automatically. We'll implement this with AWS CodeStar, a frontend tool that will automatically configure AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy, and AWS CodePipeline. By the end of the lab, you should understand what a CI/CD pipeline is, as well as the basics of how to set one up and push an update to a source code repository to trigger a new deploy.

Solution

Make sure you're in the N. Virginia (**us-east-1**) region throughout the lab.

Create a CI/CD Pipeline

1. Navigate to CodeStar.
2. Click Create project.
3. If the *Create service role* dialog appears, click Create service role.
4. Click the HTML card.
5. Click Services and open EC2 in a new tab.
6. Click KeyPairs located in the navigation menu.
7. Click Create key pair.
8. For *Name*, enter pipeline.
9. Click Create key pair.
10. Back in the CodeStar browser tab, close the key pair dialog.
11. Click Next.
12. For *Project name*, enter Pipeline.
13. For the repository, select AWS CodeCommit.
14. For the *Instance type*, select t2.micro.
15. Select subnet a.
16. Make sure the "pipeline" key pair is selected.
17. Check the acknowledgement box.
18. Click Next.
19. Click Create Project. It could take 5-10 minutes for the project to finish being set up.

Deploy a New Version of a Website using a CI/CD Pipeline

1. Click View application to navigate to our web application.
2. Back in the CodeStar browser tab, click IDE.
3. Click Access your project code.
4. Click Edit in AWS CodeCommit. This opens our repositories.
5. Click the webpage folder.
6. Click the index.html file. This is the code used to generate the website we just visited.
7. Click Edit.
8. Scroll down to line 61.
9. Change the **h1** header in line 61 to:
10. **Hello Team Bamalam!**
11. Change the **h2** header in line 62 to:
12. **You just deployed using your own CI/CD pipeline!**
13. In the *Commit changes to master* section, set the following values:

- **Author name:** Your name
- **Email address:** test@test.com
- **Commit message:** Update the website.

14. Click Commit changes.
15. In the CodeStar browser tab, click Pipeline to watch it all be deployed.
16. Refresh the web app we visited before, where we should see our new message we just edited in the code.

Conclusion

Congratulations on successfully completing this hands-on lab!