[Skip to main content](https://lms.alnafi.com/xblock/block-v1:alnafi+alnafi07+2025_02+type@vertical+block@fe148babe1144890bc56c1eab4a8452d?exam_access=&recheck_access=1&show_bookmark=0&show_title=0&view=student_view#main)

**Lab 2: Deploying DevOps on AWS**

*RQF Level 5*

**Objective:**

The objective of this lab is to introduce learners to the principles of DevOps and guide them through the process of setting up a basic CI/CD (Continuous Integration/Continuous Deployment) pipeline using AWS DevOps tools, including AWS CodePipeline, AWS CodeBuild, and AWS CodeDeploy.

**Prerequisites:**

* SysOps Advancement Track

**Lab Steps:**

**Step 1: Overview of DevOps on AWS**

- Briefly explain the principles of DevOps, emphasizing collaboration, automation, and continuous delivery.

- Introduce AWS DevOps tools: CodePipeline, CodeBuild, and CodeDeploy, **Elastic Beanstalk**

**Step 2: Setting up a Simple Web Application**

- Provide a sample web application (e.g., a simple HTML page) in a Git repository.

- Instruct participants to clone the repository to their local machines.

Syntax:

git clone <repository code paste>

**Step 3: Creating an AWS CodePipeline**

- In the AWS Management Console, navigate to AWS CodePipeline.

- Create a new pipeline.

- Source: Connect to the Git repository.

- Build: Use AWS CodeBuild.

- Deploy: Use AWS CodeDeploy.

**Step 4: Configuring AWS CodeBuild**

- In AWS CodeBuild, create a new build project.

- Select the source type (e.g., CodePipeline).

- Configure the build environment.

- Set up build commands (e.g., npm install, npm run build).

**Step 5: Configuring AWS CodeDeploy**

- Set up an AWS CodeDeploy application.

- Create a deployment group.

- Configure deployment settings.

**Step 6: Testing the CI/CD Pipeline**

- Trigger the pipeline manually or make a change to the source code to initiate the pipeline.

- Monitor the progress of the pipeline in AWS CodePipeline.

**Step 7: Reviewing Deployment in AWS CodeDeploy**

- Check the deployment status and logs in AWS CodeDeploy.

- Explore rollback options in case of issues.

**Step 8: Enhancements and Customization**

- Encourage learners to explore additional features and customization options in AWS CodePipeline, CodeBuild, and CodeDeploy.

- Discuss strategies for automated testing, integration with other AWS services, and advanced deployment scenarios.

*Conclusion:*

*By completing this lab, participants have gained hands-on experience in setting up a basic CI/CD pipeline on AWS using CodePipeline, CodeBuild, and CodeDeploy. They now have a practical understanding of how DevOps principles and tools can be applied to automate the software delivery process on the AWS platform. This lab serves as a foundation for more advanced DevOps practices and configurations on AWS.*