



CI/CD with CodePipeline



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The screenshot shows the AWS CodePipeline console with a success message: "Congratulations! The pipeline nextwork-web-pipeline has been created." The pipeline details are as follows:

- Pipeline type:** V2
- Execution mode:** SUPERSEDED
- Source:** Succeeded (AWS Lambda@Edge trigger, 79d96a14, View details)
- Build:** In progress (AWS Lambda@Edge trigger, 79d96a14, View details)
- Deploy:** Didn't Run (AWS Lambda@Edge trigger, No executions yet)



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Introducing Today's Project!

What is AWS CodePipeline?

AWS CodePipeline automates the process of fetching source code, building and testing, and deploying to the servers, and also watches for any new code commits so that the pipeline is automatically triggered for each new change committed.

How I used CodePipeline in this project

Codepipeline helped to trigger the build and deploy process once I committed a new change to the repo. It also helped with a rollback, preserving the old versions at each stage.

One thing I didn't expect in this project was...

I didn't expect that a service existed within AWS that automates the build and deploy stages. I also didn't know that a rollback was could be so easy.

This project took me...

It took me 90 minutes.



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CI/CD Pipeline

A CI/CD pipeline is a set of automated actions for continually building and deploying the application anytime the pipeline is triggered.

My CI/CD pipeline has three stages

The source stage is where it should get its source code for building the app, and is also where it should watch for changes.

The build stage is where the source code gets compiled and tested to create the final application file.

The deploy stage is where the build artifact is installed to the staging or production servers, so that it becomes accessible publicly.



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CI/CD Pipeline

Success
Congratulations! The pipeline nextwork-web-pipeline has been created.

Create a notification rule for this pipeline X

Developer Tools > [CodePipeline](#) > [Pipelines](#) > [nextwork-web-pipeline](#)

Pipeline type: V2 Execution mode: SUPERSEDED

[Notify](#) ▾ [Edit](#) [Stop execution](#) [Clone pipeline](#) [Release change](#)

nextwork-web-pipeline

Pipeline execution ID: [sa7479c7-5d1e-4857-8a91-58f490c1277f](#)

Source Succeeded

AWS CodeCommit
Succeeded - Just now
79496a14

[View details](#)

[Disable transition](#)

Build In progress

Pipeline execution ID: [sa7479c7-5d1e-4857-8a91-58f490c1277f](#)

AWS CodeBuild
In progress - Just now

[View details](#)

[Disable transition](#)

Deploy Didn't Run

AWS CodeDeploy

Didnt Run
No executions yet

[Start rollback](#)



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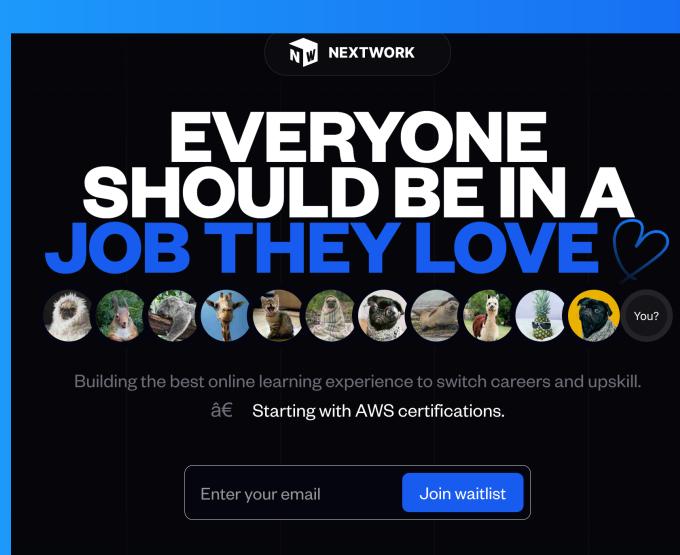
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Releasing a Change

My CI/CD pipeline gets triggered by a committed change to CodeCommit.

I tested my pipeline's trigger by making two updates to my web app's source code. These changes were changing the html code inside index.jsp and uploading the assets folder into the src/webapp folder.

Once my pipeline executed successfully, I checked my ec2 web server's address, and the updated web app came up there!





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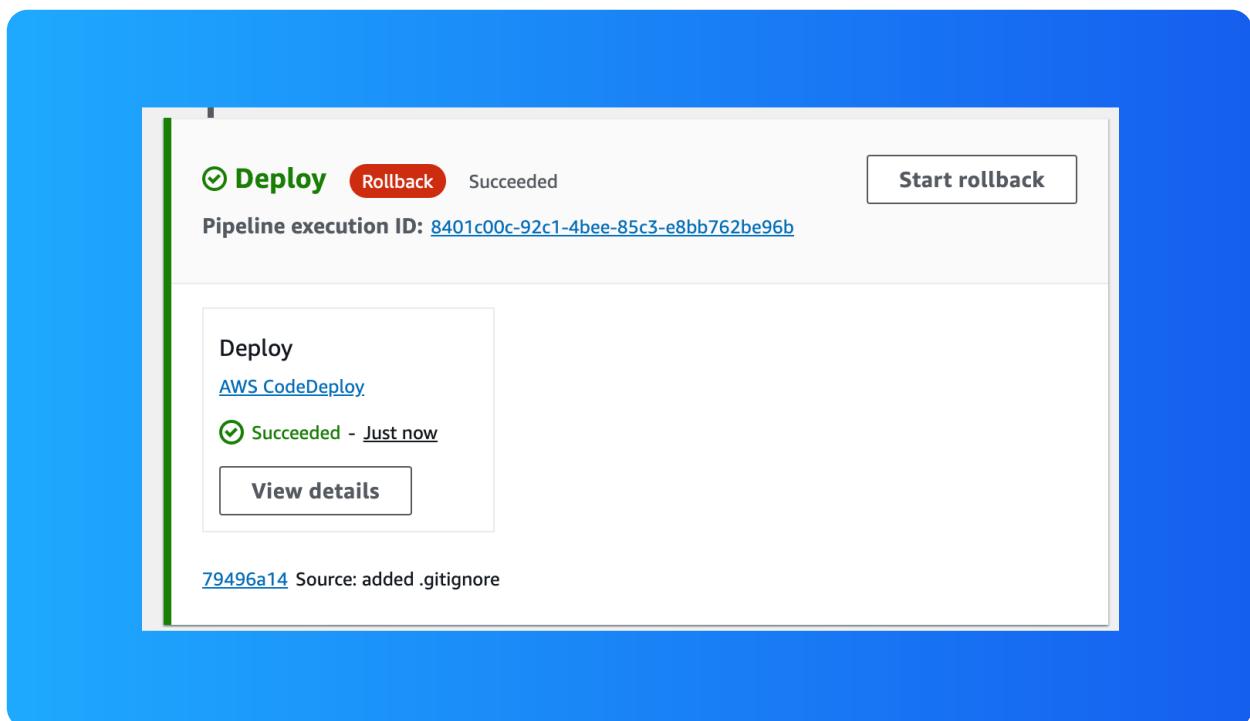
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Trigger A Rollback

A rollback in a pipeline means reverting to an older version of the app.

I initiated a rollback on the deploy stage, which replaced the hosted site with the old version of index.jsp.

I checked the source stage, and learnt that the source stage was unaffected by the rollback, as that was only applied to the deploy stage, so the source and build stages remain the most updated one.





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Reverting a Rollback

Once the rollback was complete, my web app showed the old version of the web app.

To update my Deploy stage back to the latest version of my source code, I clicked the "release change" button which runs through the pipeline again with the latest versions at each stage.

Hello Bene!

This is your NextWork web application working!



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Everyone should be in a job they love.

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