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Deploy an App with CodeDeploy

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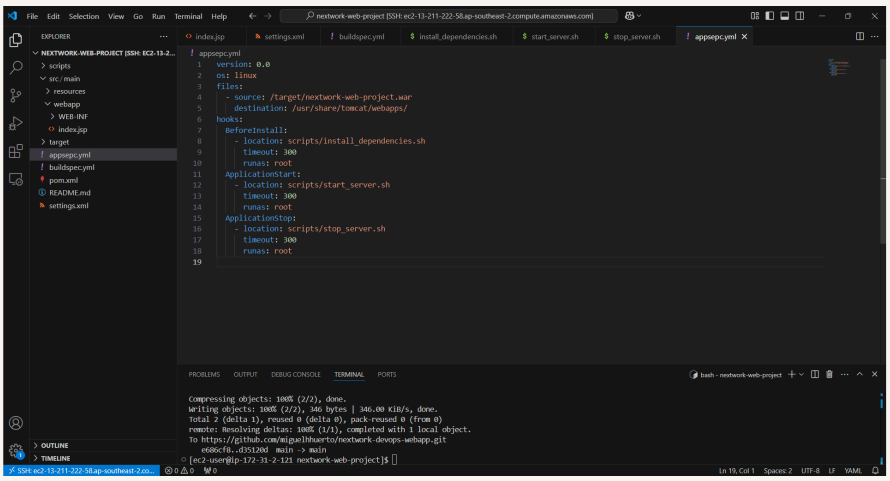

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Introducing today's project!

What is AWS CodeDeploy?

CodeDeploy is a managed service by AWS that assists users in automating and managing much of the deployment process for us.

How I'm using AWS CodeDeploy in this project

I used CodeDeploy to deploy my web application and make it accessible from the public internet.

One thing I didn't expect...

I didn't expect the problems I would encounter and the solutions I was able to think of to overcome them.

This project took me...

This project took me around 2 hours to set up everything from the previous projects, up until deployment of the application.

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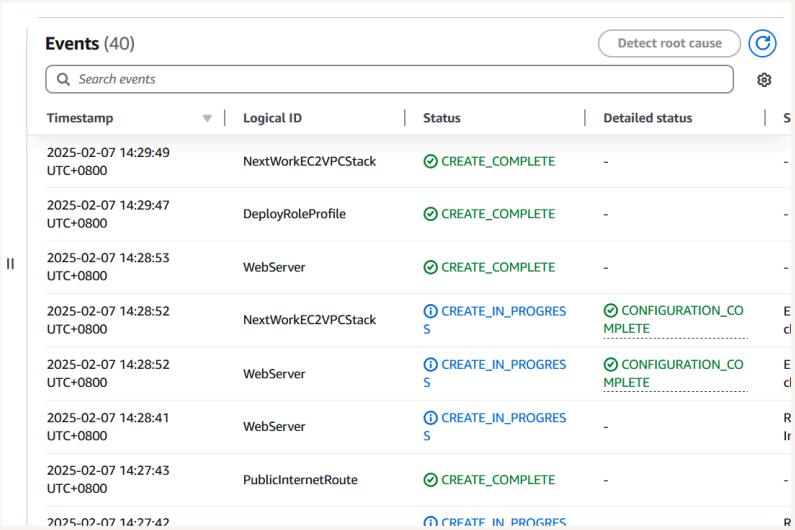
Set up an EC2 instance

I set up an EC2 instance and VPC because this is where the application will be deployed and run from, separate from the previous instance.

We manage production and development environments separately because we want to avoid any possible code changes in the production environment.

To set up my EC2 instance and VPC, I used a CloudFormation template.



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Bash scripts

Scripts are a way to automate certain commands on the terminal.

I used three scripts for my project's deployment

The first script I created was install_dependencies.sh. It ensures that the web server can handle and serve Java applications and web pages.

The second script I created was start_server.sh. This script starts all the necessary services necessary for the application to run.

The third script I created was stop_server.sh. It is used to stop the Tomcat and HTTPD services on the EC2 instance.

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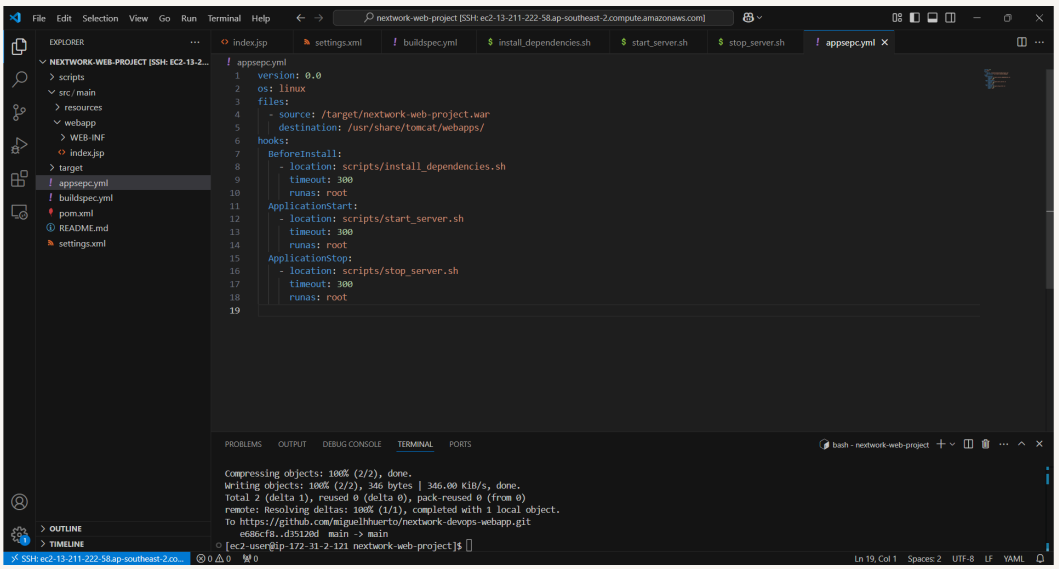
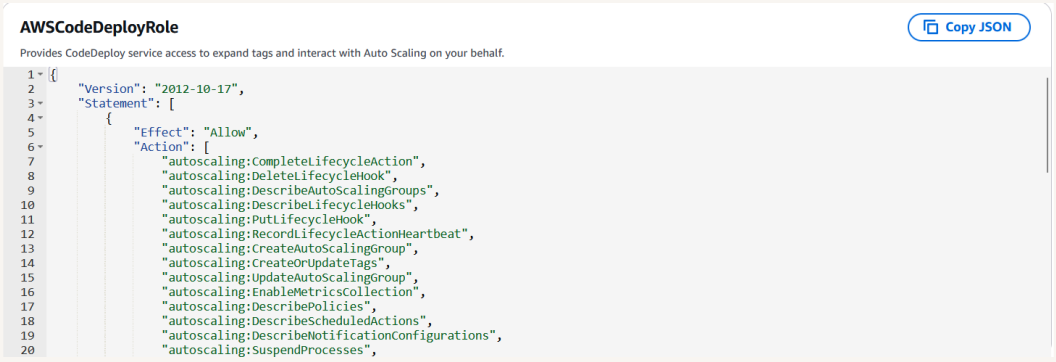
Bash scripts



CodeDeploy’s IAM Role

I created an IAM service role for CodeDeploy because it needs access and permissions to the EC2 instance.

To set up CodeDeploy’s IAM role, I chose CodeDeploy as the service for the IAM Role and chose AWSCodeDeployRole.

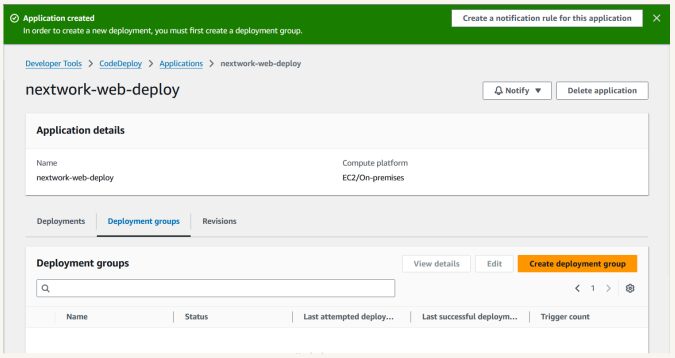


CodeDeploy application

A CodeDeploy application means streamlined deployment processes and consistency across deployments.

To create a CodeDeploy application, I had to select a compute platform, which means it can deploy applications to various environment options.

The compute platform I chose was EC2/On-premises because because it provides virtual servers that we can fully control.



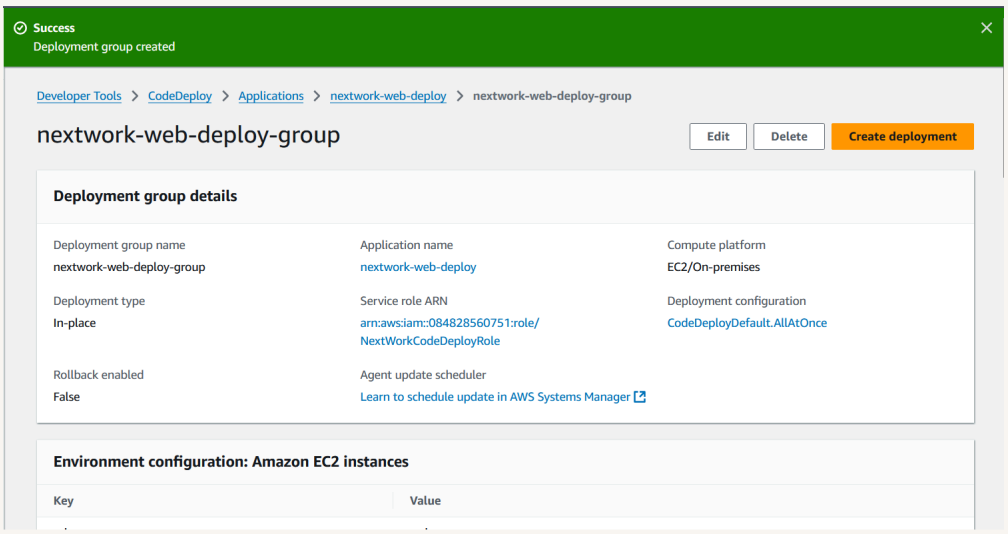
Deployment group

A deployment group means the instructions and configurations for one specific deployment scenario.

Two key configurations for a deployment group

Environment means the kind of servers to use for the application.

A CodeDeploy Agent is a helperused to communicate with CodeDeploy for instructions on deploying the application. It is installed on the EC2 instance.



CodeDeploy application

To create my deployment, I had to set up a revision location, which means the location of where the application's build artifacts(zip file or WAR file). This is where CodeDeploy is instructed to look.

My revision location was my S3 bucket where the WAR file was stored.

To visit my web app, I had to visit the public ipv4 address of the web app instance using http.

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