



DevOps x AWS

Series II

Set up a Git Repo with CodeCommit



Dahri Hadri



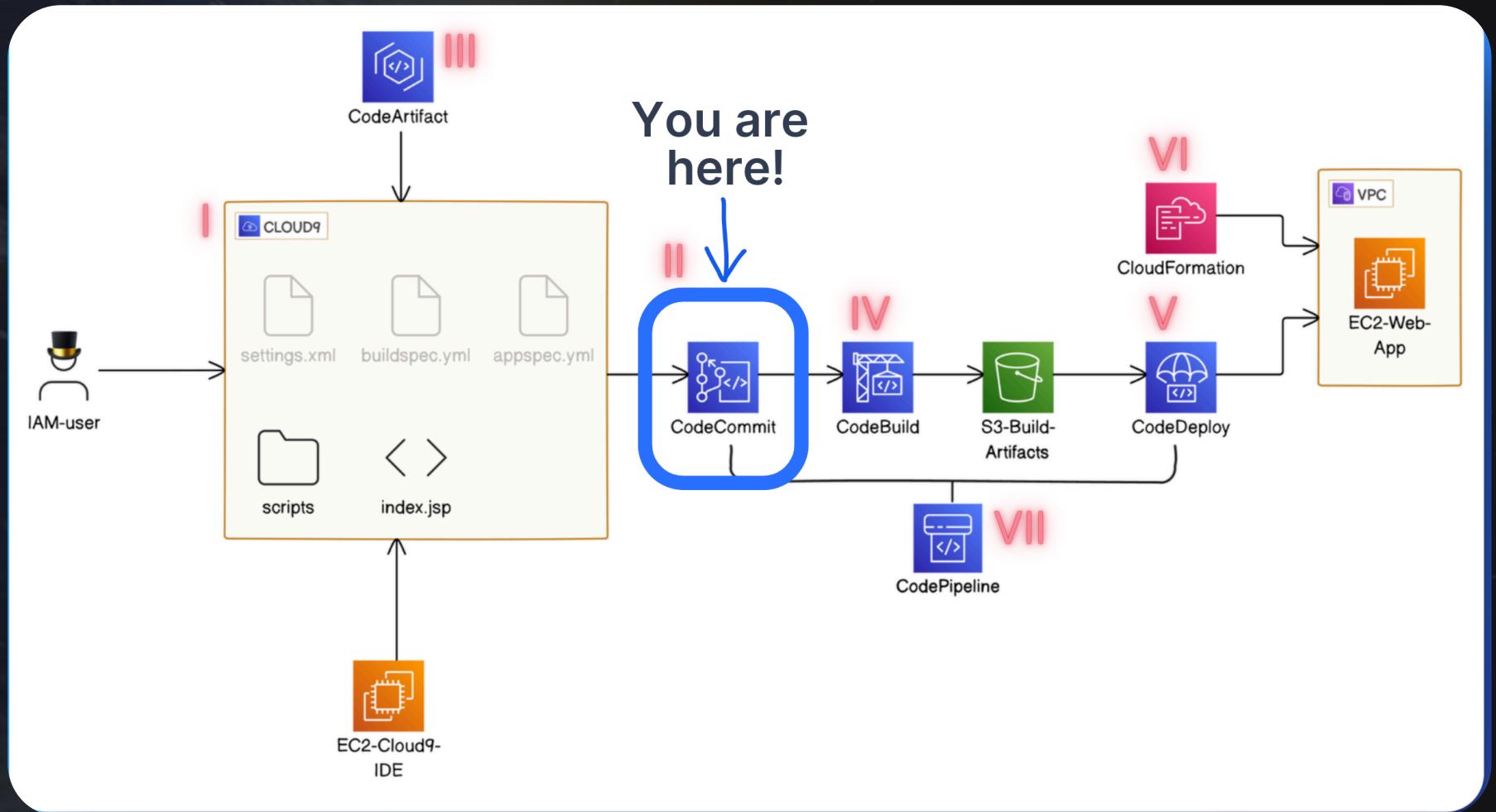


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DevOps x AWS

For this DevOps x AWS series, I am sharing 7 projects. In this SEVEN-project series, I will create a CI/CD pipeline to build and deploy a simple web application using AWS Code services. Here's what I'll build at the end of ALL seven projects:

- I. Set up a Web App + IDE with Cloud9 
- II. Set Up A Git Repository with AWS CodeCommit
- III. Secure Project Dependencies with AWS CodeArtifact
- IV. Package an App with AWS CodeBuild
- V. Deploy an App with AWS CodeDeploy
- VI. Automate with AWS CloudFormation
- VII. CI/CD Pipeline with AWS CodePipeline





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Introducing AWS CodeCommit!

What it does & how it's useful

AWS Cloud9 is a cloud-based IDE that lets you write, run, and debug code with just a browser.

Developers and teams use AWS CodeCommit because it integrates seamlessly with other AWS services, supports collaboration, and ensures code security and version control.

How I'm using it in today's project

I'm using AWS CodeCommit to store, manage, and track changes to my project's source code. It helps ensure version control, allows for collaboration, and integrates seamlessly with other AWS services for a smooth CI/CD pipeline.

This project took me...

This project took me about 20 minutes to complete, including setup, coding, and testing. Documentation took me around 30 minutes to write, ensuring detailed and clear instructions for each step.

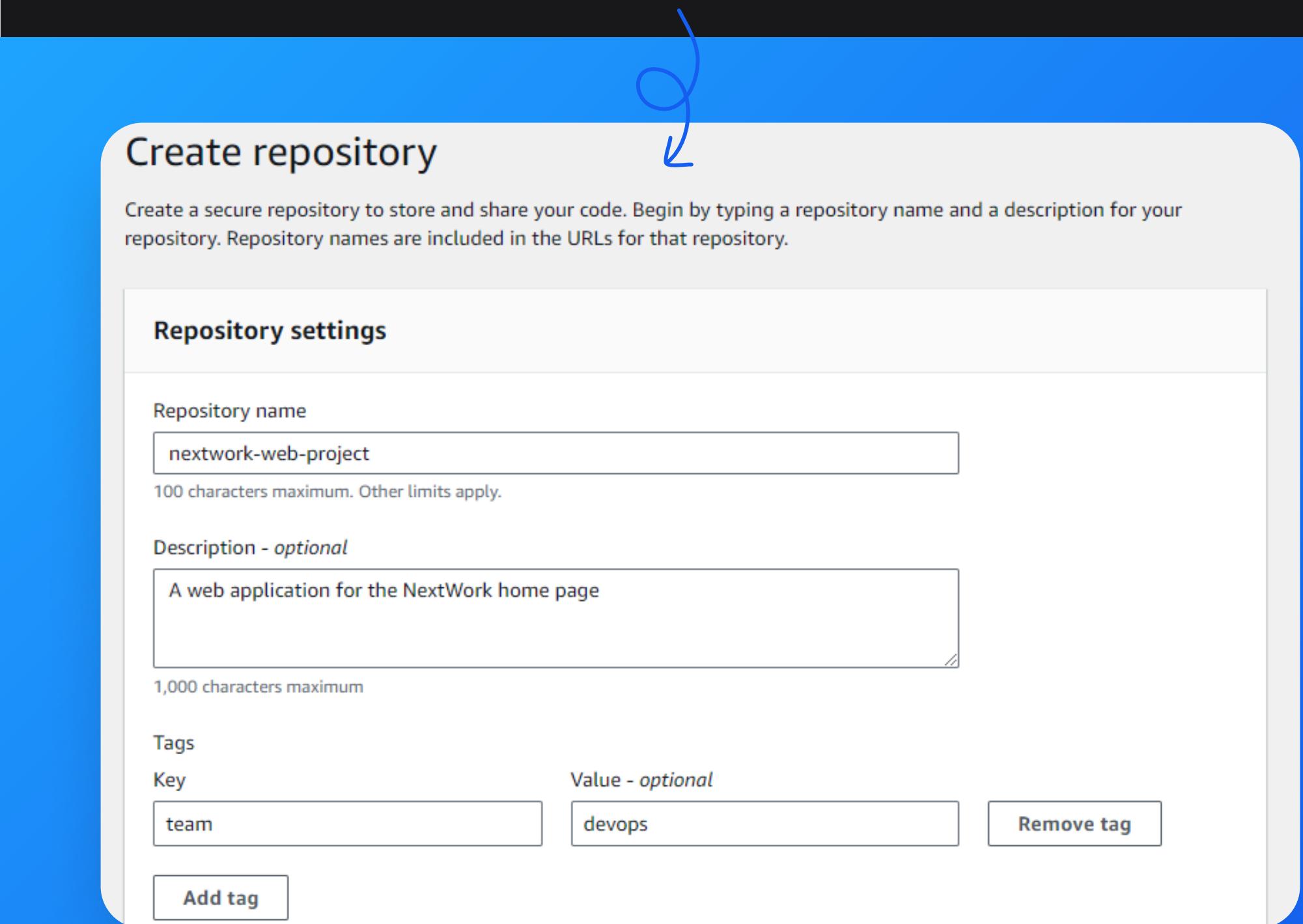


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Create a Git repository

- Git is a distributed version control system that tracks changes in source code during software development.
- A Git repository is a storage space where your project's source code and its revision history are kept, enabling version control and collaboration among developers.
- To create a Git repository in the cloud, I used AWS CodeCommit, a secure and scalable source control service.

My setup page for a CodeCommit repo



Create repository

Create a secure repository to store and share your code. Begin by typing a repository name and a description for your repository. Repository names are included in the URLs for that repository.

Repository settings

Repository name
nextwork-web-project
100 characters maximum. Other limits apply.

Description - optional
A web application for the NextWork home page
1,000 characters maximum

Tags

Key	Value - optional	Remove tag
team	devops	Remove tag

Add tag

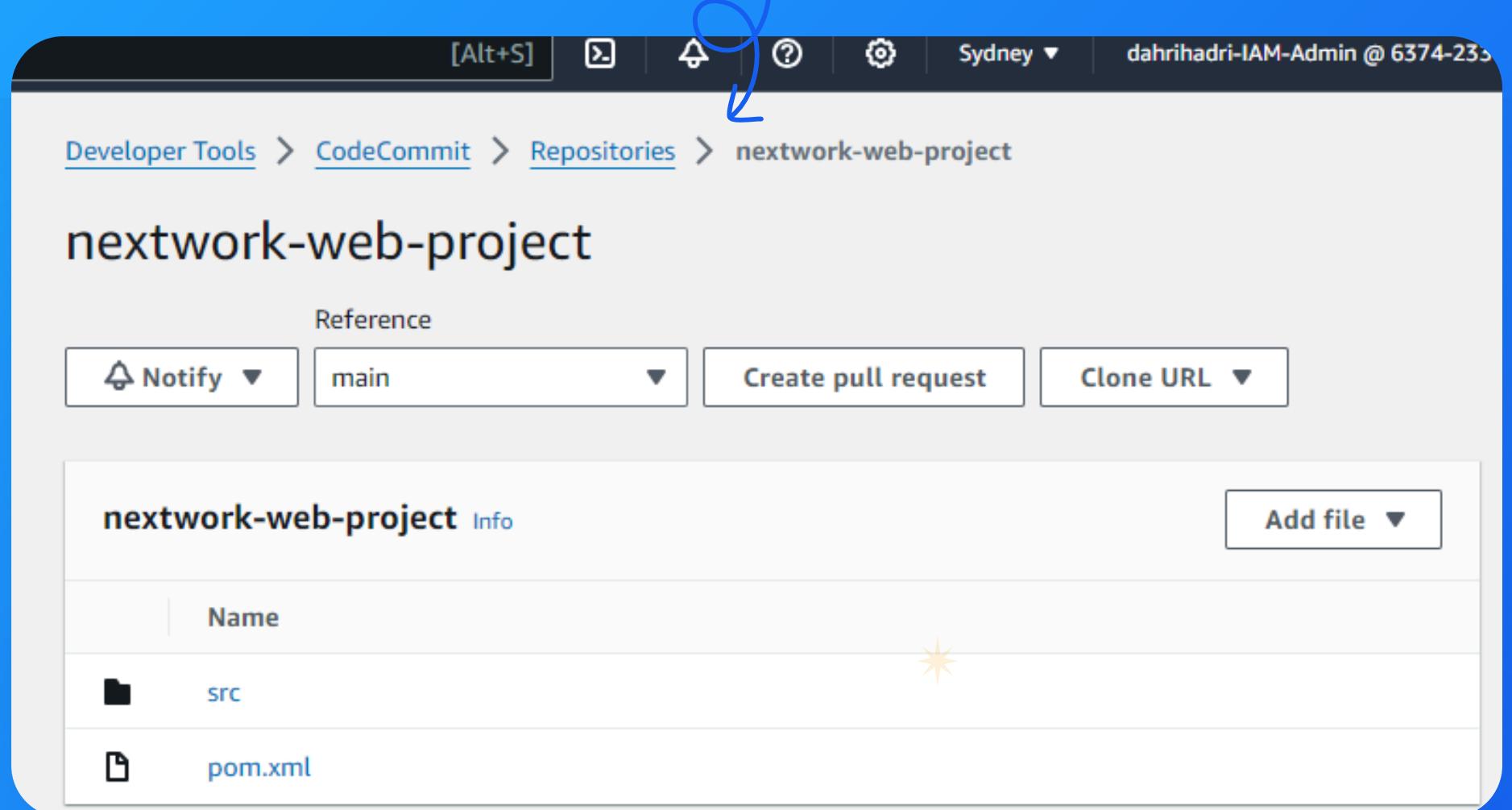


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My first commit

- I initialized a Git repo in my web application by running the command `git init -b main` in my Cloud9 IDE.
- To commit and push my code, I will have to run three different commands in order:
 - `'git add .'` - This adds all changed files to the staging area.
 - `'git commit -m "Initial commit'` - This commits the changes with a message.
 - `'git push -u origin main'` - This pushes the commits to the remote repository.

Files I committed showing up in my CodeCommit repo!



The screenshot shows the AWS CodeCommit interface. At the top, there's a navigation bar with links for Developer Tools, CodeCommit, Repositories, and the specific repository name 'nextwork-web-project'. Below the navigation bar, the repository name 'nextwork-web-project' is displayed in large, bold, dark blue text. Underneath, there's a 'Reference' section with buttons for Notify, a dropdown menu for the branch 'main', Create pull request, and Clone URL. The main content area shows the repository structure with a folder named 'src' and a file named 'pom.xml'. In the top right corner of the content area, there's a button labeled 'Add file'. The entire screenshot is set against a dark background with several gold starburst icons.



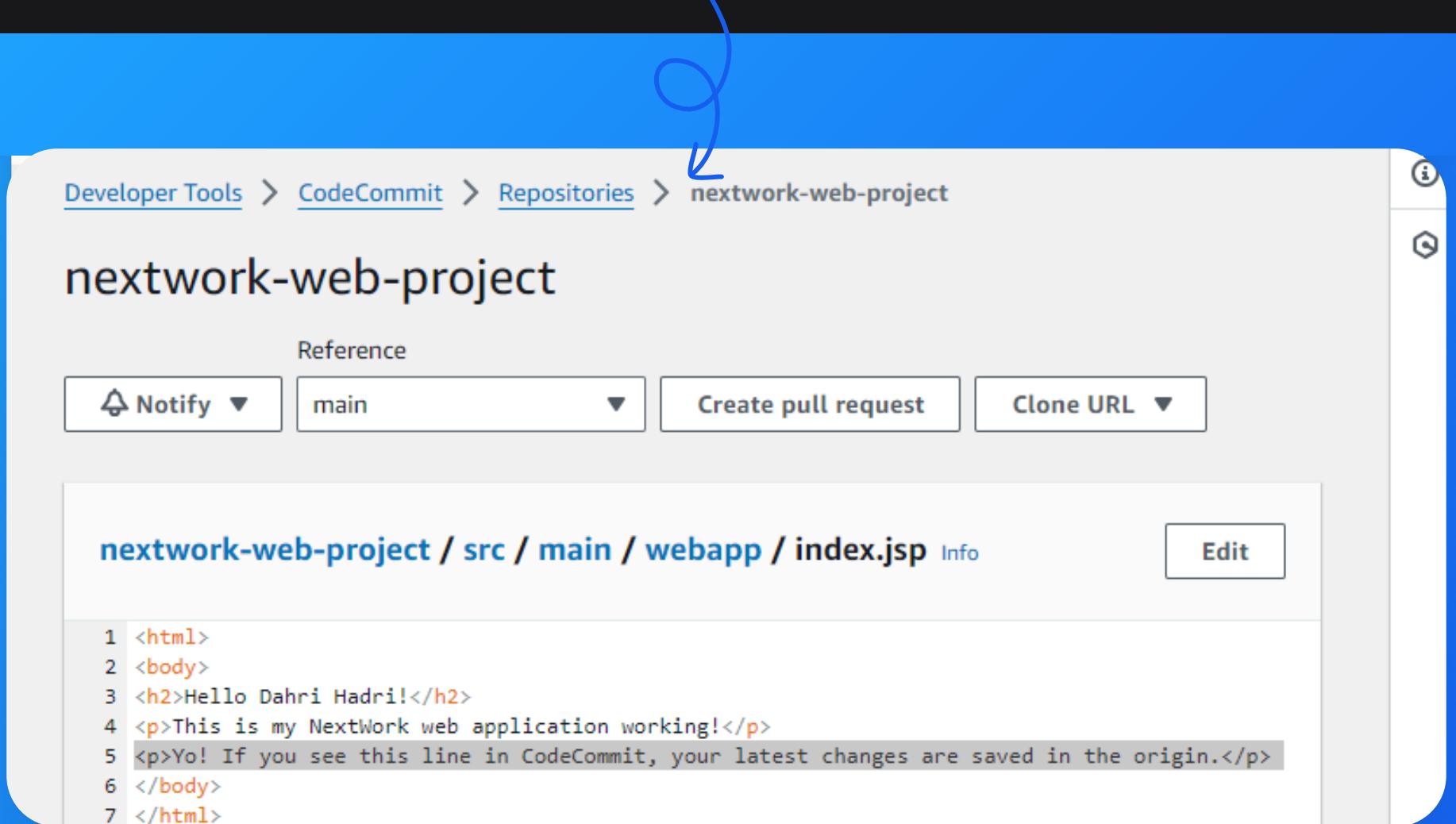
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Git in action



- I wanted to see Git working in action, so I changed the `index.jsp` file in Cloud9 by adding a new line of text.
- Then I tried seeing these changes in my CodeCommit repository, but this didn't work because I hadn't pushed my changes from my local Git repository in Cloud9 to the remote CodeCommit repository.
- I finally saw the changes in my CodeCommit repository after running `git push` in my Cloud9 terminal to push my committed changes to the remote origin (CodeCommit repository).

My updated index.jsp file showing up in CodeCommit!



The screenshot shows the AWS CodeCommit interface. At the top, there's a navigation bar with 'Developer Tools > CodeCommit > Repositories > nextwork-web-project'. Below the navigation, the repository name 'nextwork-web-project' is displayed. Underneath, there are buttons for 'Notify' (with a dropdown arrow), a dropdown menu for the branch 'main', 'Create pull request', and 'Clone URL'. A blue callout arrow points from the text above to this 'main' dropdown. Further down, a file listing shows 'nextwork-web-project / src / main / webapp / index.jsp'. The code editor displays the following HTML content:

```
1 <html>
2 <body>
3 <h2>Hello Dahri Hadri!</h2>
4 <p>This is my NextWork web application working!</p>
5 <p>Yo! If you see this line in CodeCommit, your latest changes are saved in the origin.</p>
6 </body>
7 </html>
```



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My key learnings

1

Git is a DevOps tool used for source code management. It's a free and open-source version control system designed to handle projects of all sizes efficiently. Git tracks changes in source code, facilitating collaboration among multiple developers.

2

A local repository refers to a copy of a Git repository that resides on your computer. It allows you to work on your project locally, making changes and staging them before pushing them to a remote repository like AWS CodeCommit.

3

To commit your code in Git, you typically run these three key commands:

1. `git add .` - This command stages all changes in your working directory for the next commit.
2. `git commit -m "Your commit message"` - This command records the changes staged in the previous step to your local repository.
3. `git push` - This command uploads the changes from your local repository to the remote repository

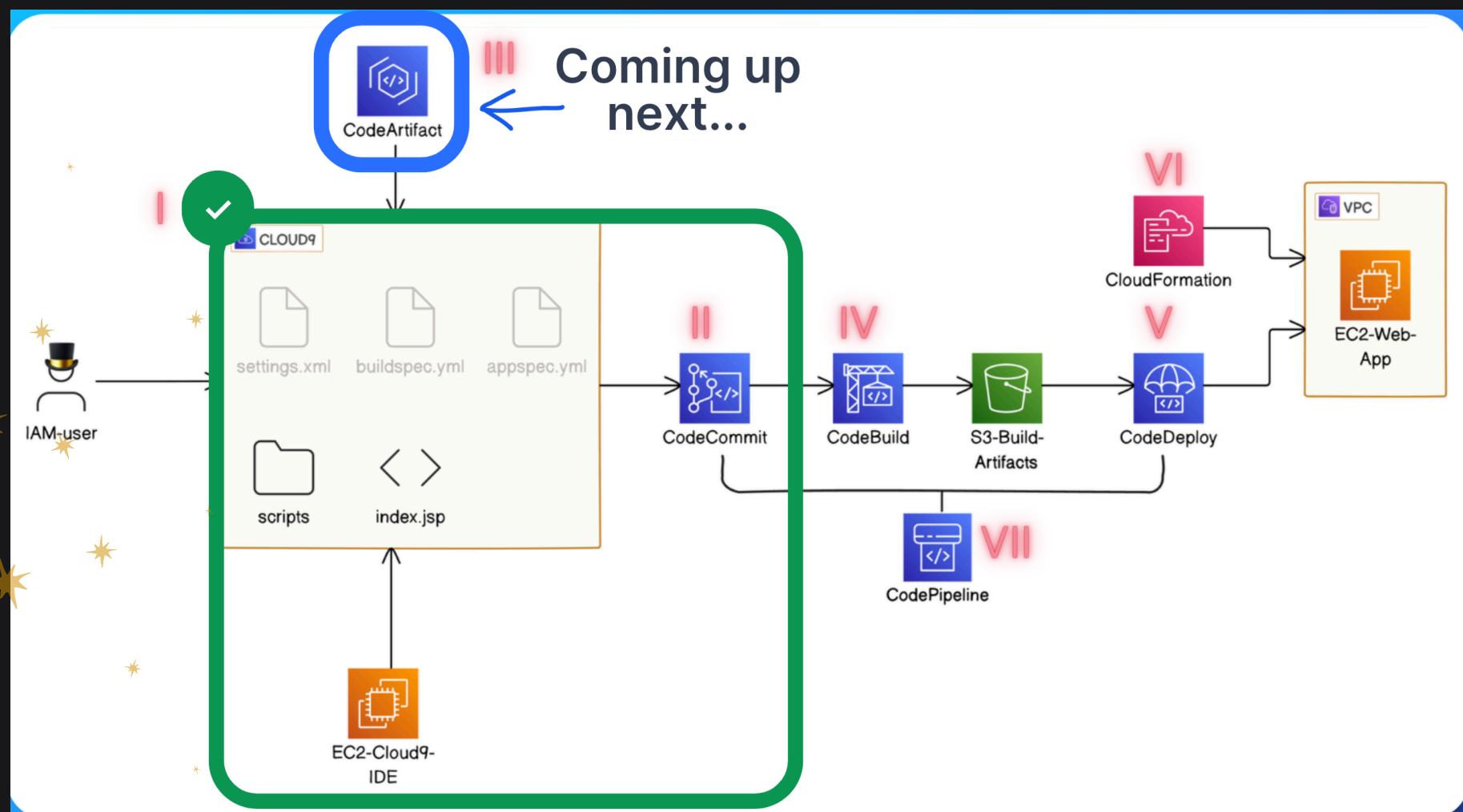
4

One thing I didn't expect was the seamless integration between AWS CodeCommit and Cloud9, which simplified my workflow for version control and development.



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Great! we are done with series II





NEXTWORK

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~



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Ask me about it

