



Set up a Git Repo with AWS



Sai Prasanth Reddy

The screenshot shows the AWS CodeCommit interface. The top navigation bar includes 'Developer Tools', 'CodeCommit', 'Repositories', and the repository name 'nextwork-web-project'. Below the navigation is a search bar with the placeholder 'nextwork-web-project'. A 'Reference' dropdown is set to 'main'. There are buttons for 'Notify', 'Create pull request', and 'Clone URL'. The main content area displays the file 'index.jsp' under the path 'src/main/webapp'. The code content is as follows:

```
1 <html>
2 <body>
3 <h2>Hello </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>
```



Sai Prasanth Reddy

NextWork Student

NextWork.org

Introducing Today's Project!

What is AWS CodeCommit?

AWS CodeCommit is a fully managed Git service that securely stores and manages code. It's useful for collaboration, scaling with project size, and integrating with AWS services, removing the need for maintaining self-hosted version control systems.

How I'm using CodeCommit in this project

I used AWS CodeCommit in today's project to store and manage my code by pushing changes from my Cloud9 environment to a remote repository. This allowed me to track versions and collaborate more effectively, ensuring code is securely backed up.

One thing I didn't expect...

One thing I didn't expect in this project was the need to explicitly push my local commits to the remote repository in CodeCommit, as I initially assumed changes would sync automatically without the extra `git push` step.

This project took me...

This project took me about an hour to complete, including setting up the environment, making changes, committing them, and pushing to AWS CodeCommit.



Create a Git repository

What is Git?

Git is a distributed version control system that tracks changes in source code during software development. It allows multiple developers to collaborate, manage revisions, and revert to previous versions of the code when necessary.

What is a Git repository?

A Git repository is a storage space where a project's files and version history are kept. It tracks all changes made to the files, allowing collaboration, version control, and easy rollback to previous states of the project.

The screenshot shows the 'Create repository' page in the AWS CodeCommit service. At the top, there is a banner stating: 'AWS CodeCommit is no longer available to new customers. Existing customers of AWS CodeCommit can continue to use the service as normal.' Below the banner, the main heading is 'Create repository'. A sub-instruction says: '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.' The 'Repository settings' section contains fields for 'Repository name' (set to 'nextwork-web-project') and 'Description - optional' (set to 'A web application for the NextWork home page'). There is also a 'Tags' section with a key-value pair ('team' : 'devops'). At the bottom, there is an 'Additional configuration' section with a checkbox for 'Enable Amazon CodeGuru Reviewer for Java and Python - optional'.



My first commit

I initialised a Git repo by running the command `git init` in Cloud9.

I used three commands to push local changes to CodeCommit

The first command I ran was `git add .`. This command stages all the changes in the current directory, including new, modified, and deleted files, preparing them to be committed in the next step.

The second command I ran was `git commit -m "Initial commit. Updated index.jsp."`. This commits the staged changes to the local repo with a message summarizing the updates, allowing me to track changes with a descriptive log entry.

The third command I ran was `git push -u origin main`. It pushes the committed changes to the remote repository's main branch and sets the upstream branch, so future pushes only require `git push`.



Creating a Repository

The screenshot shows the AWS CodeCommit interface for the 'nextwork-web-project' repository. The top navigation bar includes links for Developer Tools, CodeCommit, Repositories, and the specific repository name. Below the navigation, there's a 'Reference' section with buttons for Notify (dropdown), main (branch dropdown), Create pull request, and Clone URL (dropdown). The main content area displays the repository name 'nextwork-web-project' and an 'Info' button. A file list shows two items: 'src' (a folder) and 'pom.xml' (a file). An 'Add file' button is located in the top right corner of the file list area.

Git in action

Making changes in Cloud9

I wanted to see Git working in action, so I updated the `index.jsp` file in Cloud9 by making some modifications to the content. After updating it, I committed and pushed the changes to the remote repository.

The importance of committing changes

I tried seeing these changes in my CodeCommit repository, but this didn't work because I hadn't yet pushed the local commits to the remote repository using `git push`. Without this step, the changes remained local and were not reflected in CodeCommit

I finally saw the changes in my CodeCommit repository after running `git push -u origin main`, which pushed my committed changes from the local repository to the remote repository's main branch, updating it with the latest modifications.

The screenshot shows the AWS CodeCommit interface. The top navigation bar includes 'Developer Tools', 'CodeCommit', 'Repositories', and 'nextwork-web-project'. Below the navigation is a search bar with 'nextwork-web-project' and a dropdown menu labeled 'Reference' with 'main' selected. There are also buttons for 'Notify', 'Create pull request', and 'Clone URL'. The main content area displays the file path 'nextwork-web-project / src / main / webapp / index.jsp' and an 'Edit' button. The code content is as follows:

```
1 <html>
2 <body>
3 <h2>Hello </h2>
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