



NextWork.org

Connect a GitHub Repo with AWS



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```
Installed:  
git-2.40.1-1.amzn2023.0.3.x86_64  
perl-Error-1:0.17029-5.amzn2023.0.2.noarch  
perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64  
  
git-core-2.40.1-1.amzn2023.0.3.x86_64  
perl-File-Find-1.37-477.amzn2023.0.6.noarch  
perl-lib-0.65-477.amzn2023.0.6.x86_64  
  
Complete!  
[ec2-user@ip-172-31-2-182 ~]$ git --version  
git version 2.40.1  
[ec2-user@ip-172-31-2-182 ~]$ █
```

Introducing Today's Project!

What is GitHub?

GitHub is a tool for developers to store different versions of projects. This is especially useful when working with teams that need to track updates and changes in a timely manner.

One thing I didn't expect...

I didn't expect how fun this project would be as I have already had experience with Git and GitHub. This was a nice refresher.

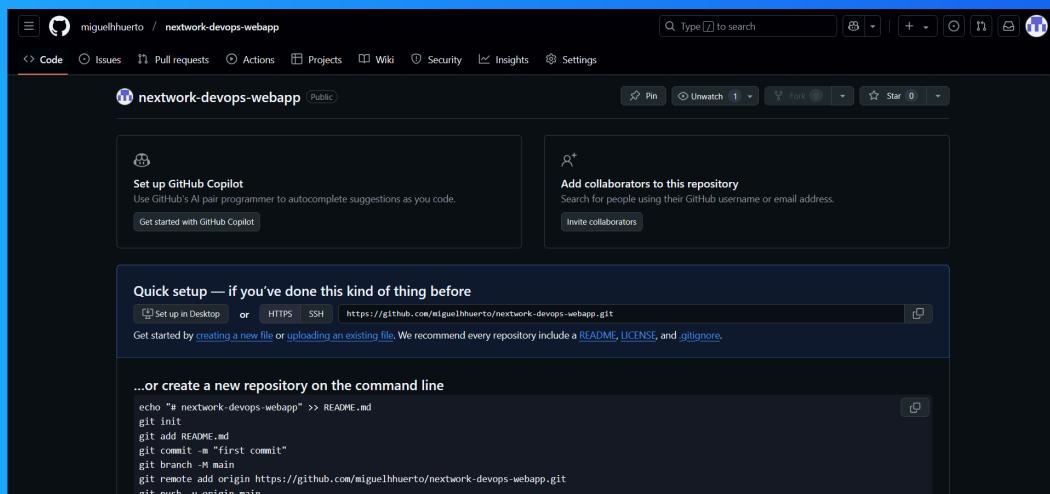
This project took me...

One hour.

Git and GitHub

Git is a tool to help developers manage, coordinate and streamline code edits. I installed Git using the commands sudo dnf install git -y

GitHub is a tool for developers to store different versions of projects. This is especially useful when working with teams that need to track updates and changes in a timely manner.



My local repository

A Git repository is like a folder for the project files and edit history.

git init is a command that initializes the working directory as a local Git repository. Running this command indicates that changes are now tracked.

After running git init, the response from the terminal was a warning about the naming of the main branch. A branch in Git is a diversion from the original code, or a new version of the code.

```
● [ec2-user@ip-172-31-2-182 nextwork-web-project]$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/ec2-user/nextwork-web-project/.git/
○ [ec2-user@ip-172-31-2-182 nextwork-web-project]$ s
```

To push local changes to GitHub, I ran three commands

git add

The first command I ran was "git add ." A staging area is where all modified files are collated to be reviewed before you commit.

git commit

'The second command I ran was git commit -m "Updated index.jsp with new content" Using '-m' means' message which provides a description of the commit.

git push

The third command I ran was git push -u origin master Using '-u' means upstream which tells Git to push to master by default.

Authentication

When I commit changes to GitHub, Git asks for my credentials because it needs to verify that the user has the permissions to make changes the remote origin your local repo is connected with.

Local Git identity

Git needs my name and email because it needs to accurately track who did the changes recorded.

Running `git log` showed me that the history of commits, and author's name can easily be tracked.

```
● [ec2-user@ip-172-31-2-182 nextwork-web-project]$ git log
commit 4ed938ef5054ad699627189ac815d0f9ed90f38d (HEAD -> master, origin/master)
Author: EC2 Default User <ec2-user@ip-172-31-2-182.ap-southeast-2.compute.internal>
Date:   Wed Jan 15 05:35:18 2025 +0000

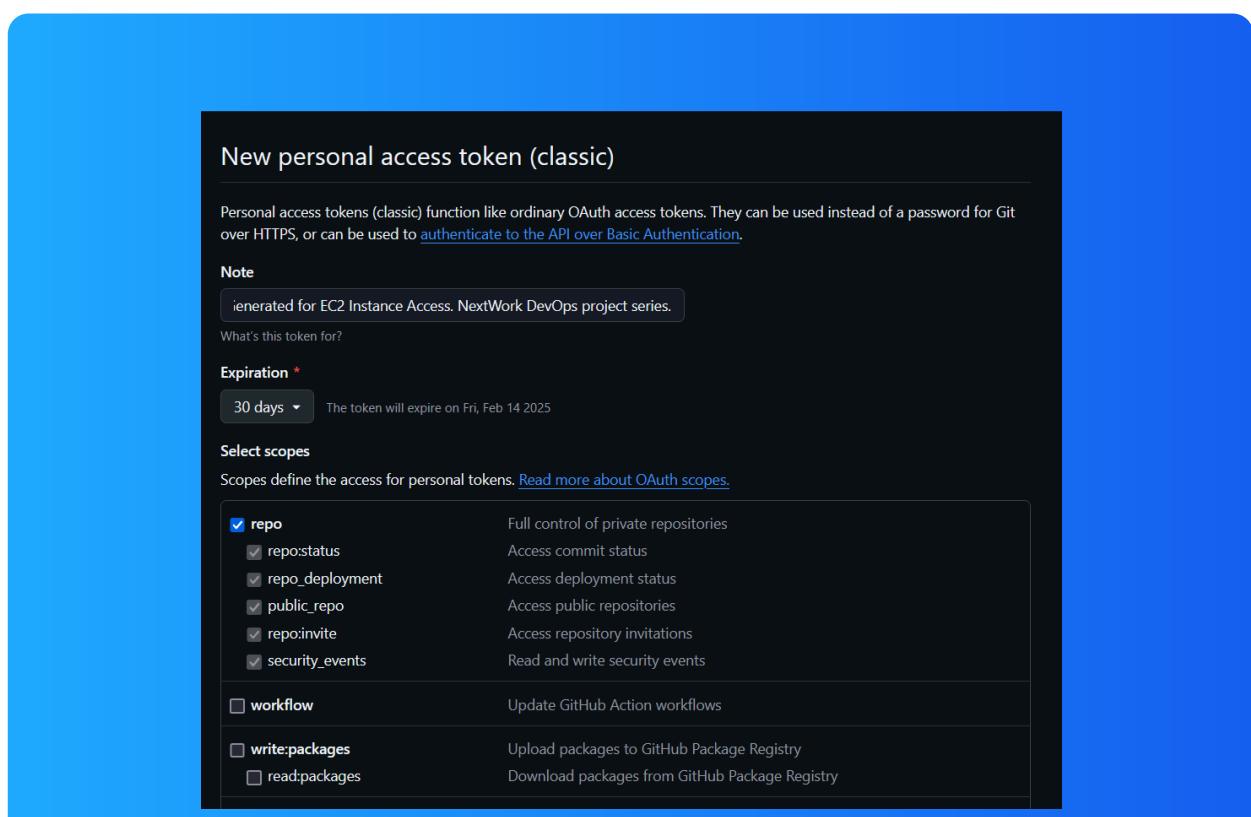
        Updated index.jsp with new content
```

GitHub tokens

GitHub authentication failed when I entered my password because GitHub phased out authentication using passwords to connect to repos over HTTPS due to multiple security risks.

A GitHub token is another way of providing security in GitHub repos. I'm using one in this project because password authentication was phased out.

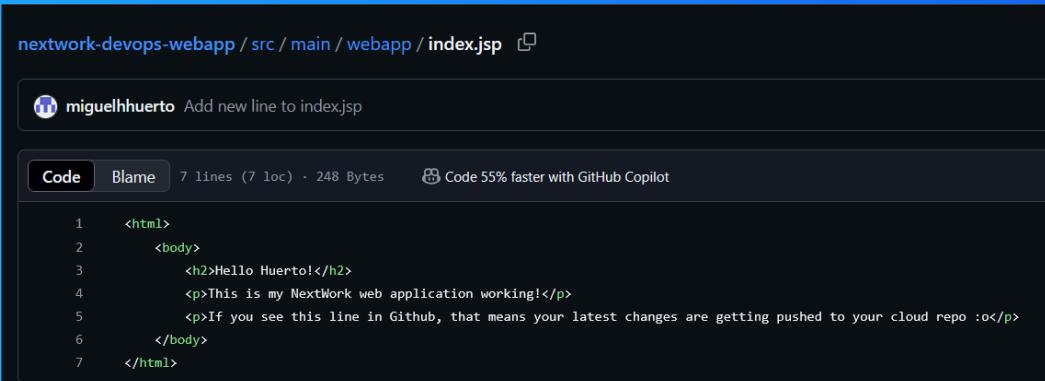
I could set up a GitHub token by going to settings, configuring the token, and generating the GitHub token.



Making changes again

I wanted to see Git working in action, so I edited the code on my local repository. I couldn't see the changes in my GitHub repo initially because the changes have not been pushed.

I finally saw the changes in my GitHub repo after I staged, committed, and pushed to the main branch.



A screenshot of a GitHub code editor window for the file `index.jsp`. The code is as follows:

```
1 <html>
2   <body>
3     <h2>Hello Huerto!</h2>
4     <p>This is my NextWork web application working!</p>
5     <p>If you see this line in Github, that means your latest changes are getting pushed to your cloud repo :o</p>
6   </body>
7 </html>
```



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