**COMSATS UNIVERSITY ISLAMABAD**

**ATTOCK CAMPUS**

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**REG. NO.:** SP22-BSE-020 & SP22-BSE-018

**SUBJECT:** DEVOPS FOR CLOUD COMPUTING

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**DATED: 1ST JUNE 2025**

# Created GitHub repository:

We created a GitHub repository with the name DevOps-Project.

Link: [DevOps/DevOps-Project at main · flickShot555/DevOps](https://github.com/flickShot555/DevOps/tree/main/DevOps-Project)

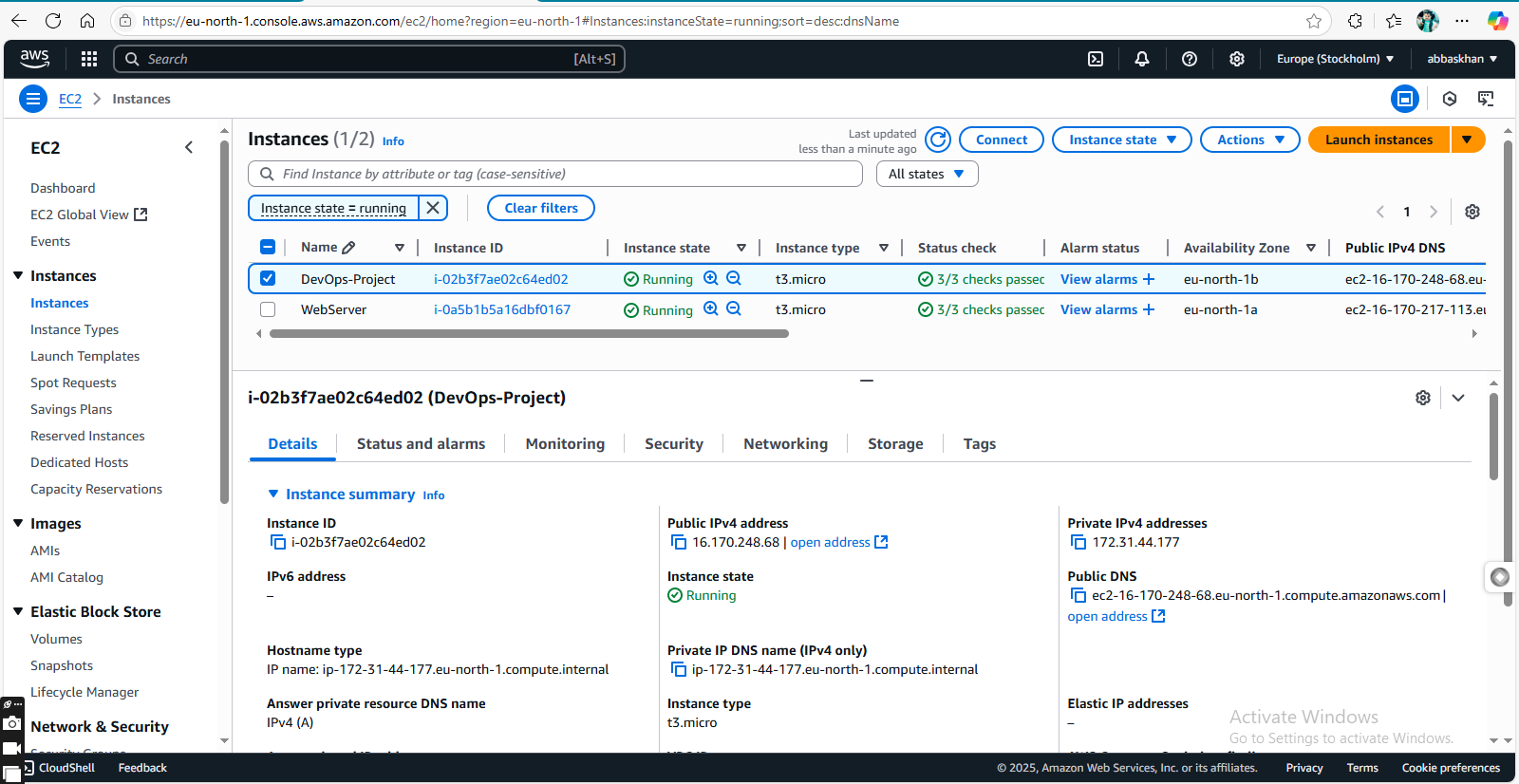
The GitHub repository that is linked with the pipeline is at

Link: [flickShot555/tic-tac-toe](https://github.com/flickShot555/tic-tac-toe)

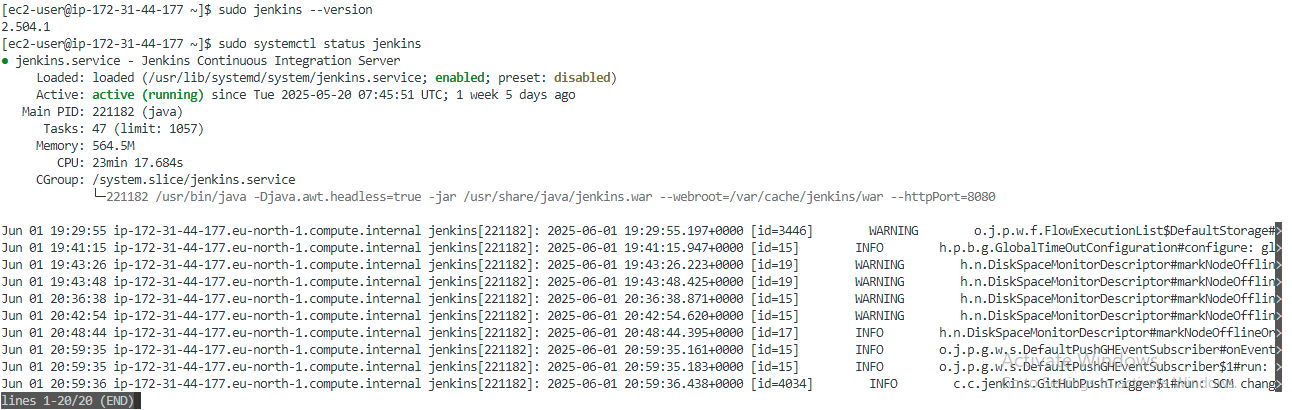
# Created an EC2 instance and installed Jenkins:

We created an EC2 instance on AWS server, the same We are using for our DevOps Project. We named the project ‘DevOps-Project’ and is live at

URL: <http://16.170.248.68>

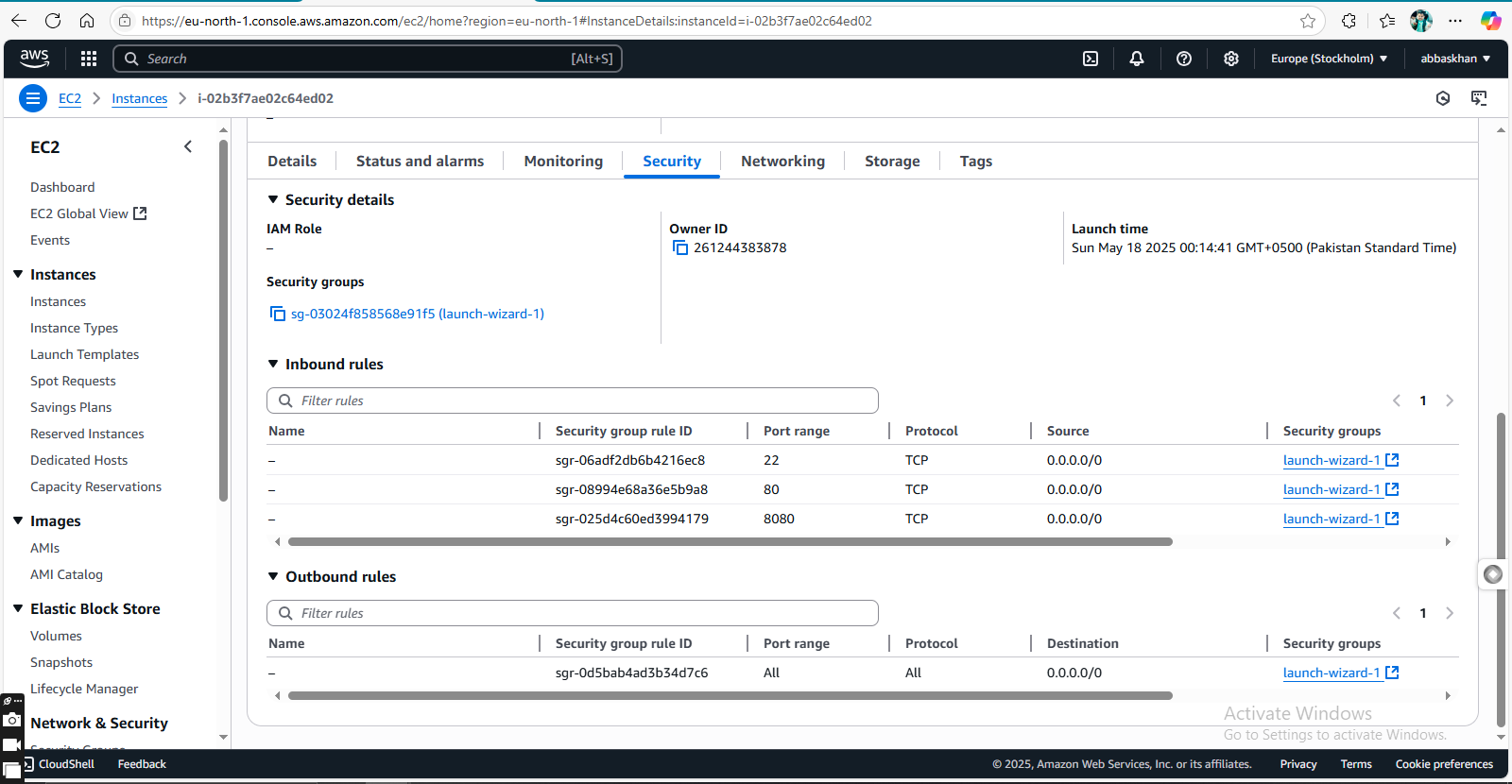


We installed, configured, and ran Jenkins on the instance

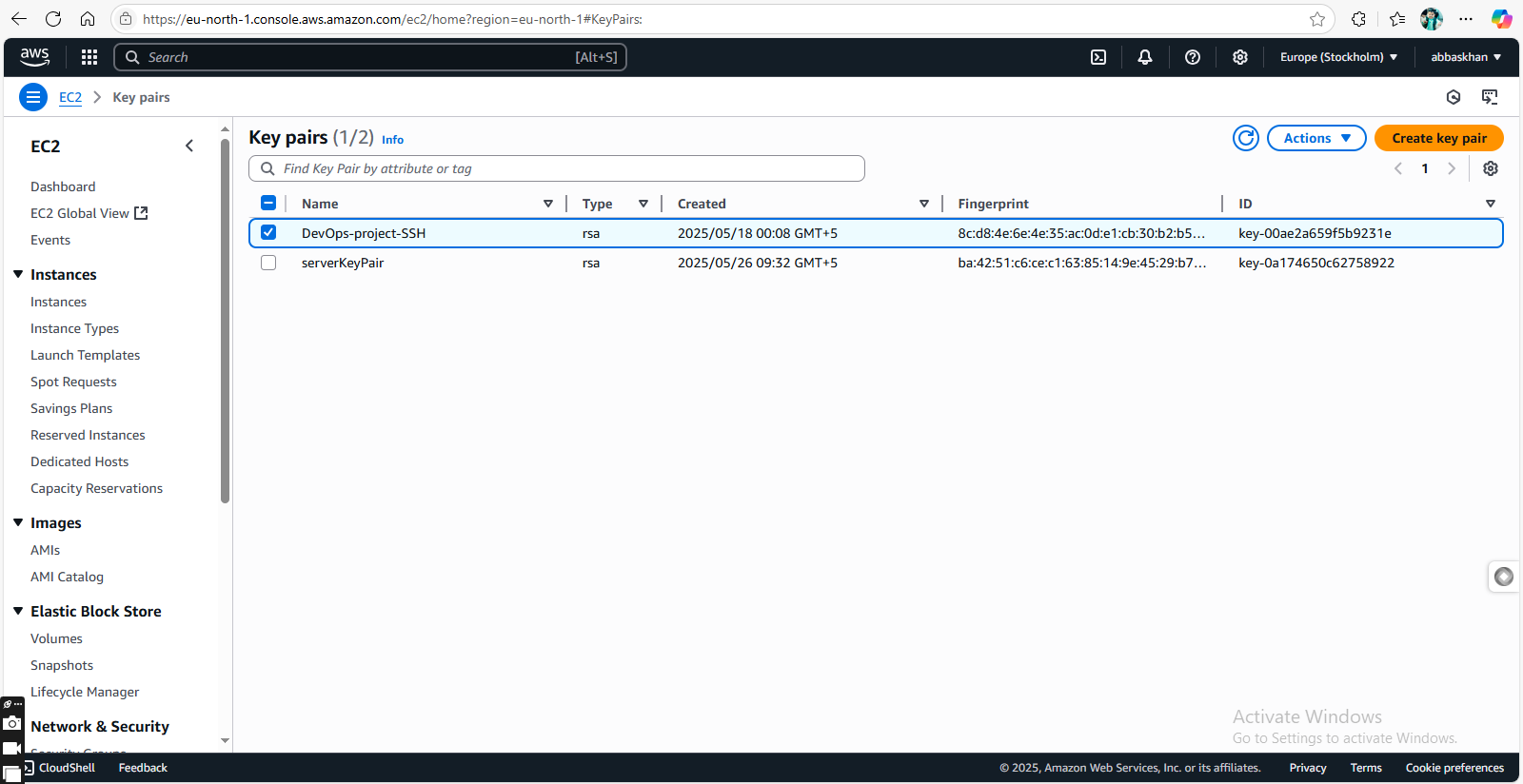


# Configuring the Jenkins Pipeline:

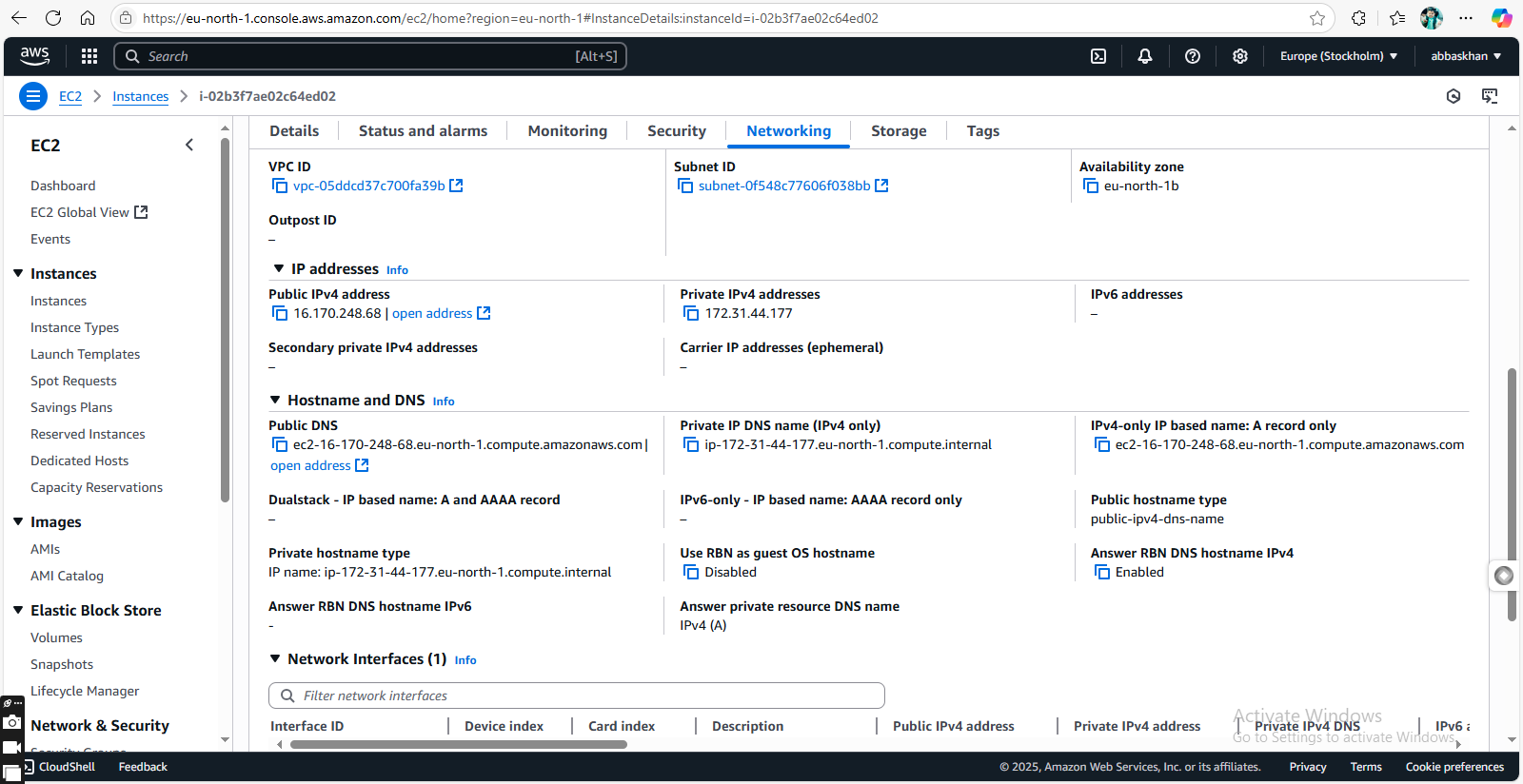
Security Groups:



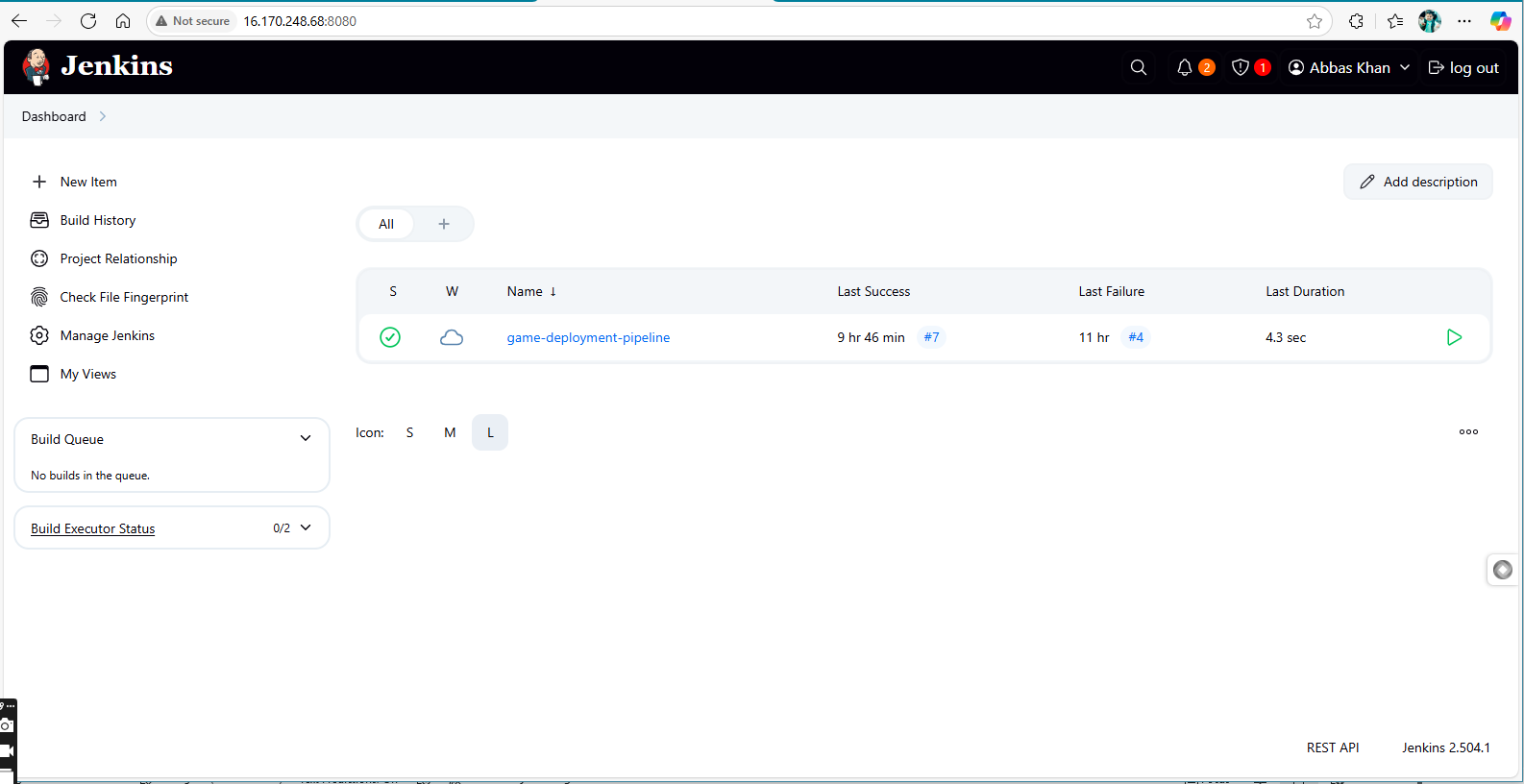
Key Pairs:



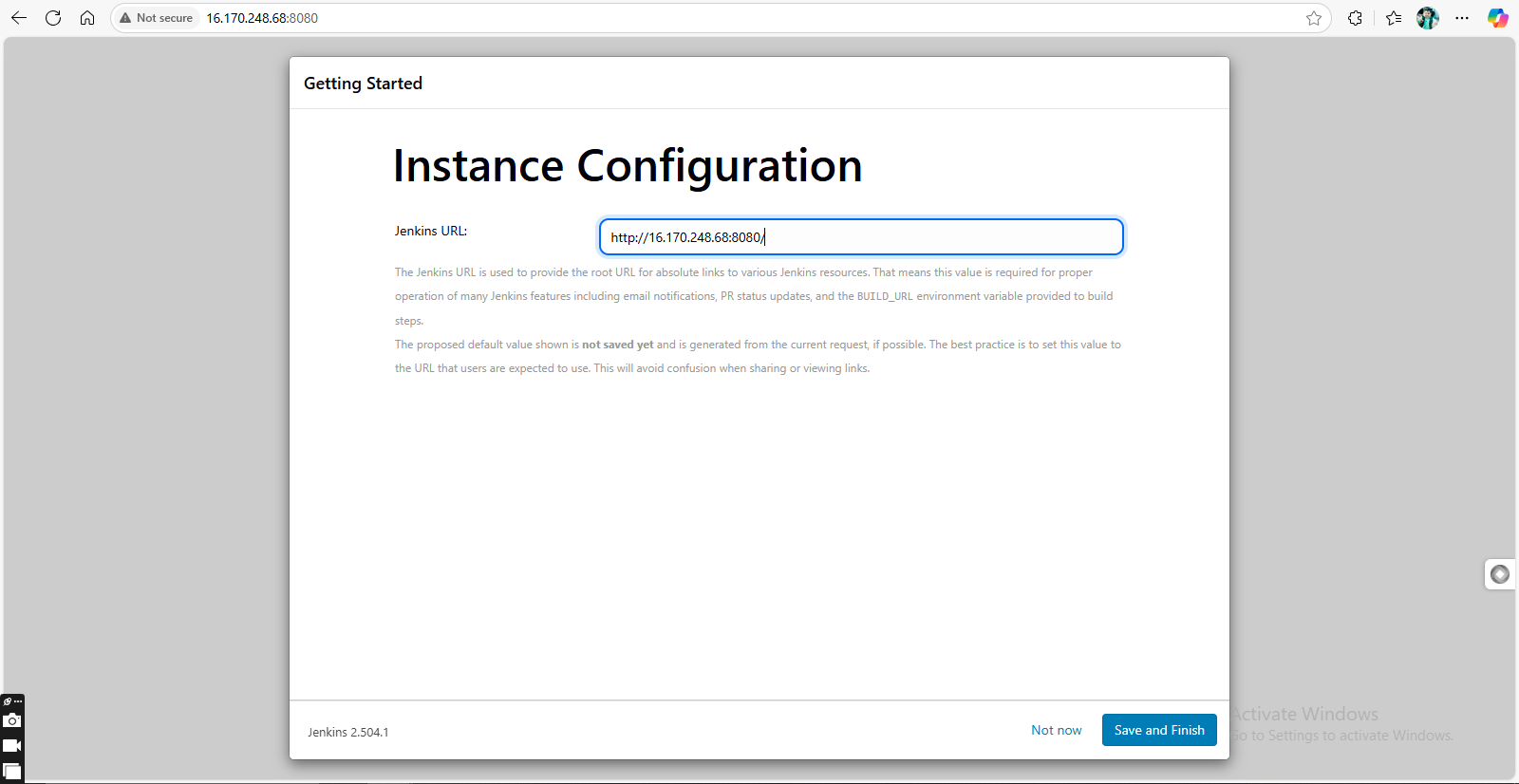
Networking Settings:



# Jenkins Dashboard:



WE configured the instance:

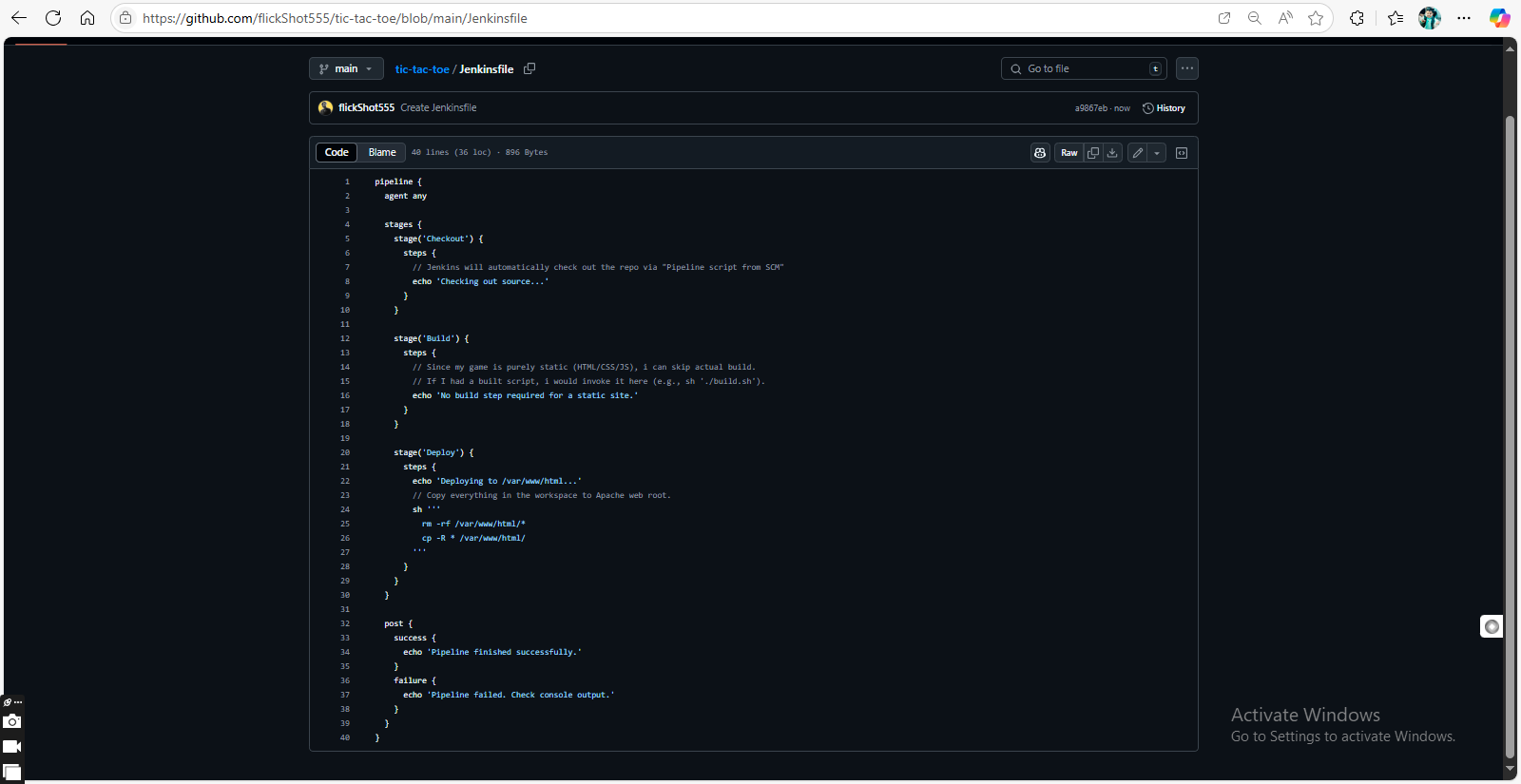


# Jenkins Job Configuration:

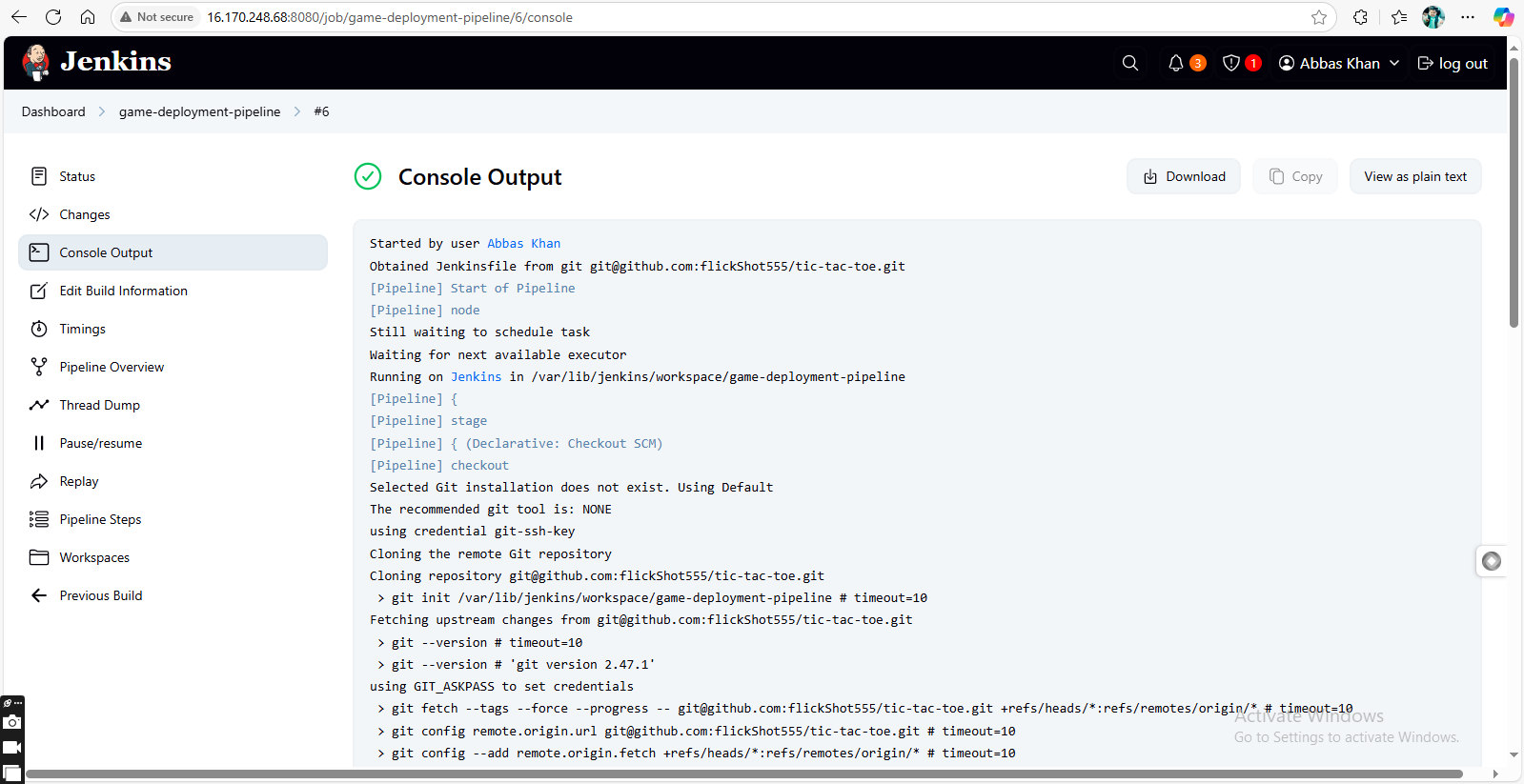
A screenshot of a computer

AI-generated content may be incorrect.

# Jenkinsfile in GitHub:



# Build console output:



Complete text:

Started by GitHub push by flickShot555

Obtained Jenkinsfile from git git@github.com:flickShot555/tic-tac-toe.git

[Pipeline] Start of Pipeline

[Pipeline] node

Running on [Jenkins](http://16.170.248.68:8080/computer/(built-in)/) in /var/lib/jenkins/workspace/game-deployment-pipeline

[Pipeline] {

[Pipeline] stage

[Pipeline] { (Declarative: Checkout SCM)

[Pipeline] checkout

Selected Git installation does not exist. Using Default

The recommended git tool is: NONE

using credential git-ssh-key

> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/game-deployment-pipeline/.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url git@github.com:flickShot555/tic-tac-toe.git # timeout=10

Fetching upstream changes from git@github.com:flickShot555/tic-tac-toe.git

> git --version # timeout=10

> git --version # 'git version 2.47.1'

using GIT\_ASKPASS to set credentials

> git fetch --tags --force --progress -- git@github.com:flickShot555/tic-tac-toe.git +refs/heads/\*:refs/remotes/origin/\* # timeout=10

> git rev-parse refs/remotes/origin/main^{commit} # timeout=10

Checking out Revision 94cf155f9f02ccaec4e79690af28e87144c0ad74 (refs/remotes/origin/main)

> git config core.sparsecheckout # timeout=10

> git checkout -f 94cf155f9f02ccaec4e79690af28e87144c0ad74 # timeout=10

Commit message: "Update README.md"

> git rev-list --no-walk a9867ebd46d9ab1a1af54f468aee1e2f6c493652 # timeout=10

[Pipeline] }

[Pipeline] // stage

[Pipeline] withEnv

[Pipeline] {

[Pipeline] stage

[Pipeline] { (Checkout)

[Pipeline] echo

Checking out source...

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Build)

[Pipeline] echo

No build step required for a static site.

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Deploy)

[Pipeline] echo

Deploying to /var/www/html...

[Pipeline] sh

+ rm -rf /var/www/html/Jenkinsfile /var/www/html/README.md /var/www/html/index.html /var/www/html/script.js /var/www/html/style.css

+ cp -R Jenkinsfile README.md index.html script.js style.css /var/www/html/

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Declarative: Post Actions)

[Pipeline] echo

Pipeline finished successfully.

[Pipeline] }

[Pipeline] // stage

[Pipeline] }

[Pipeline] // withEnv

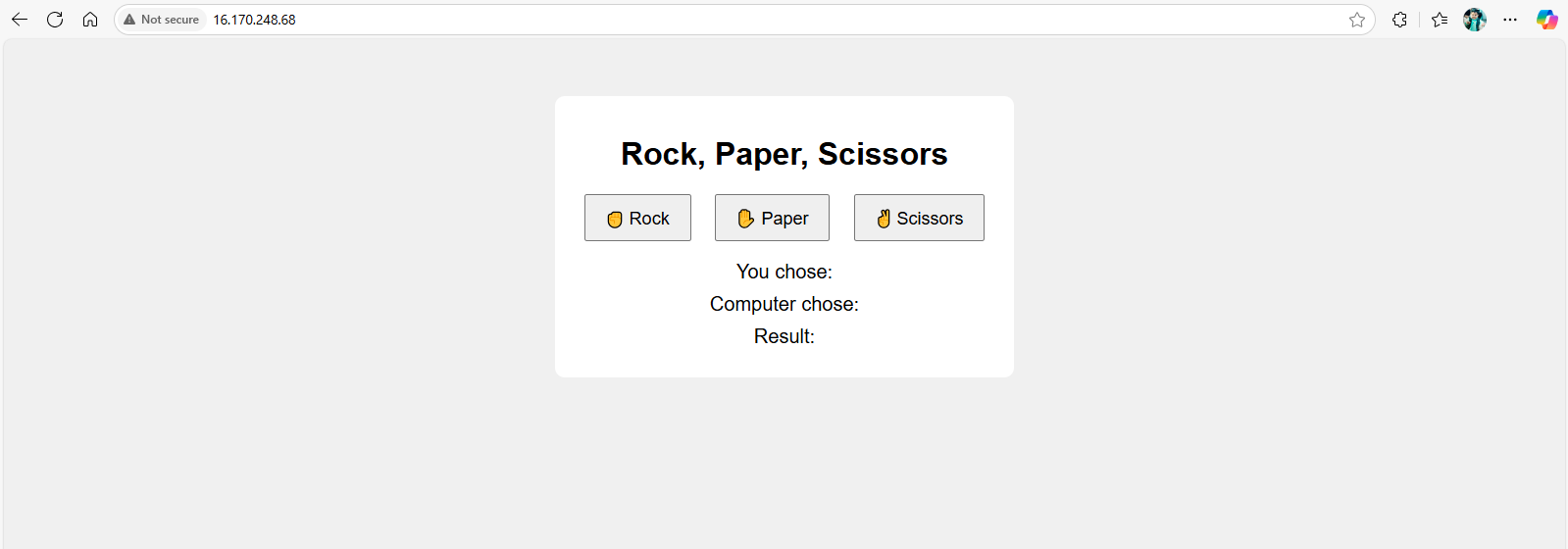
[Pipeline] }

[Pipeline] // node

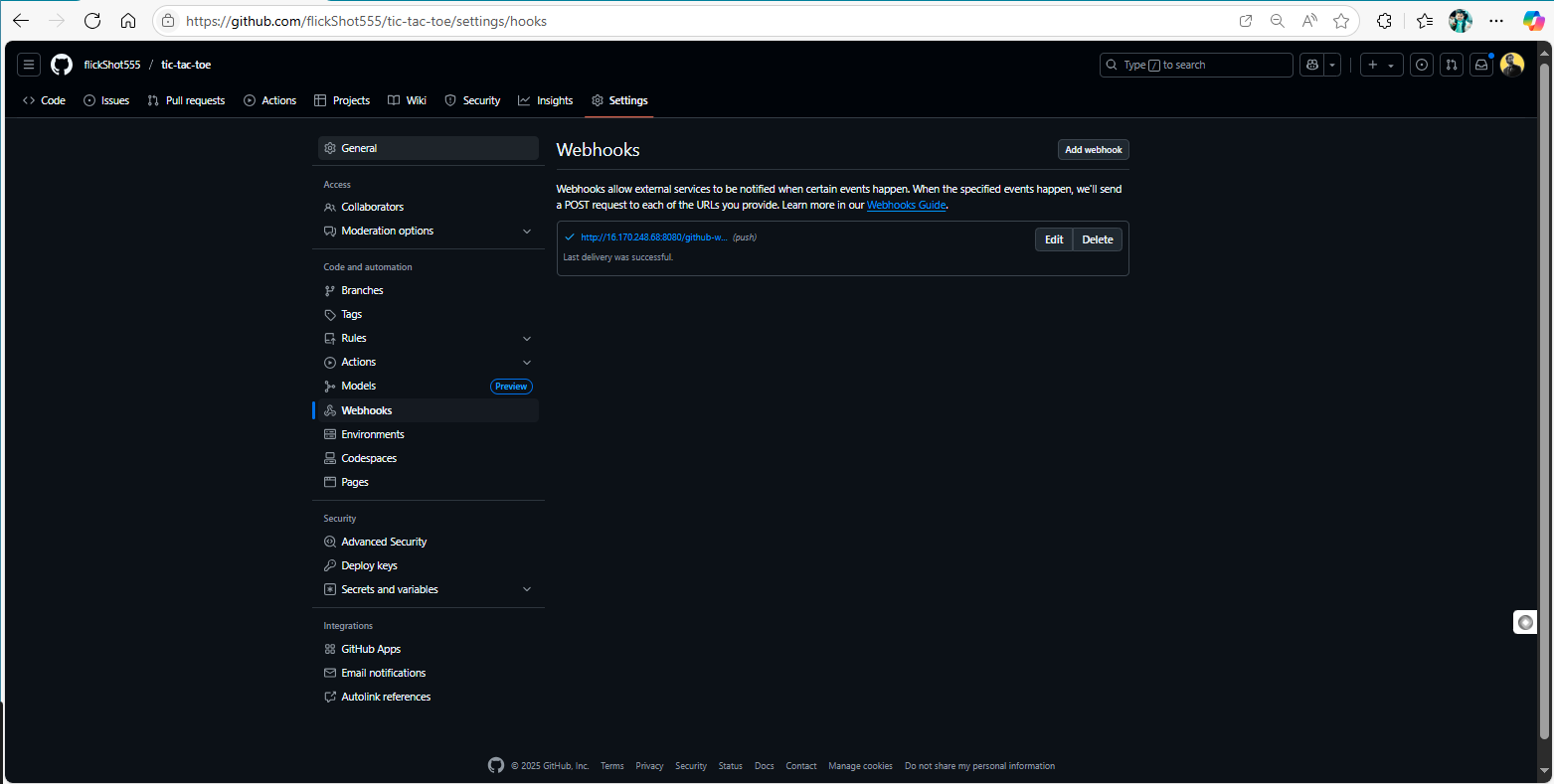
[Pipeline] End of Pipeline

Finished: SUCCESS

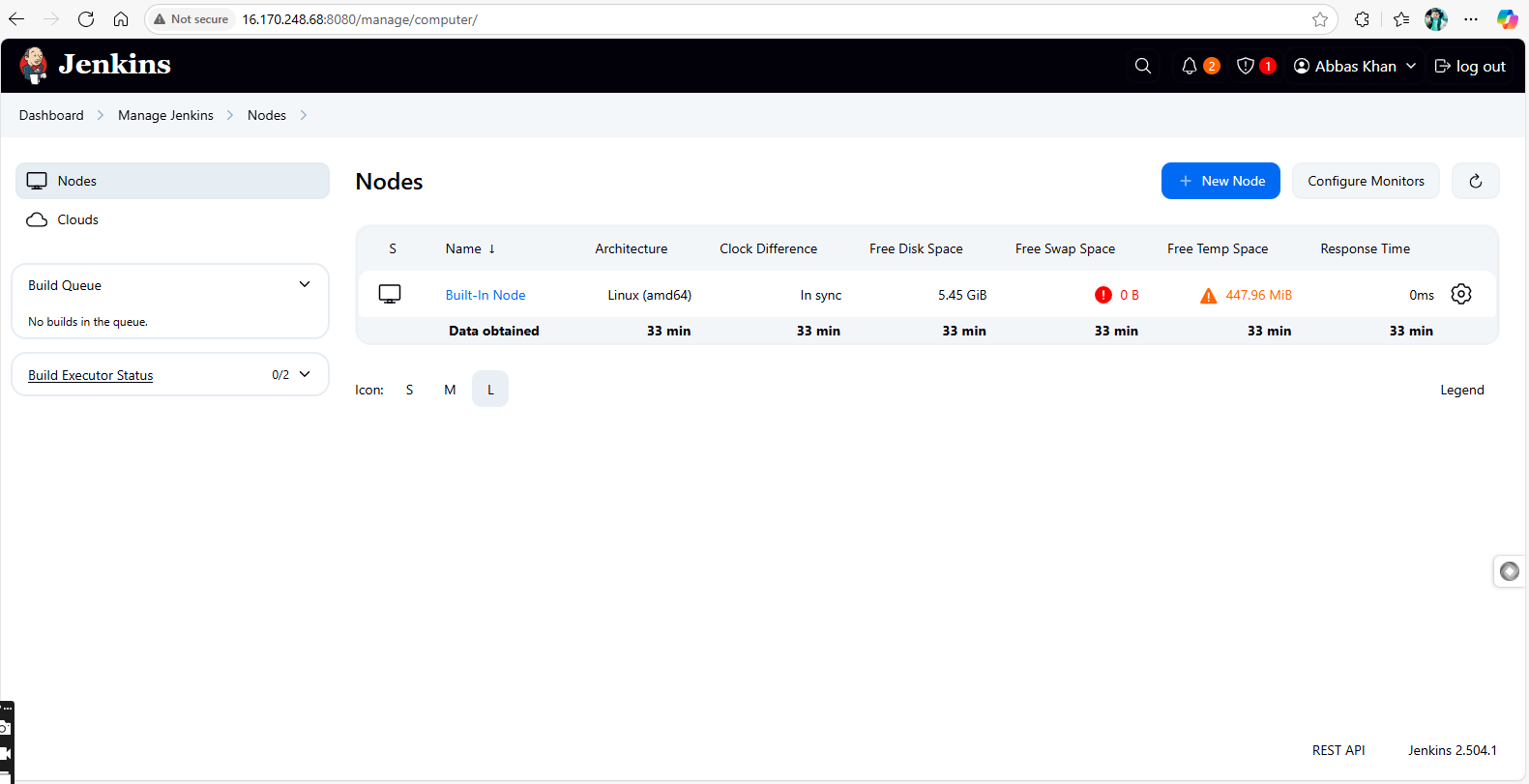
# Apache hosted Game in browser:



# GitHub Webhook:



# Node status:



# Finally Configured pipeline:

A screenshot of a computer

AI-generated content may be incorrect.

Links:

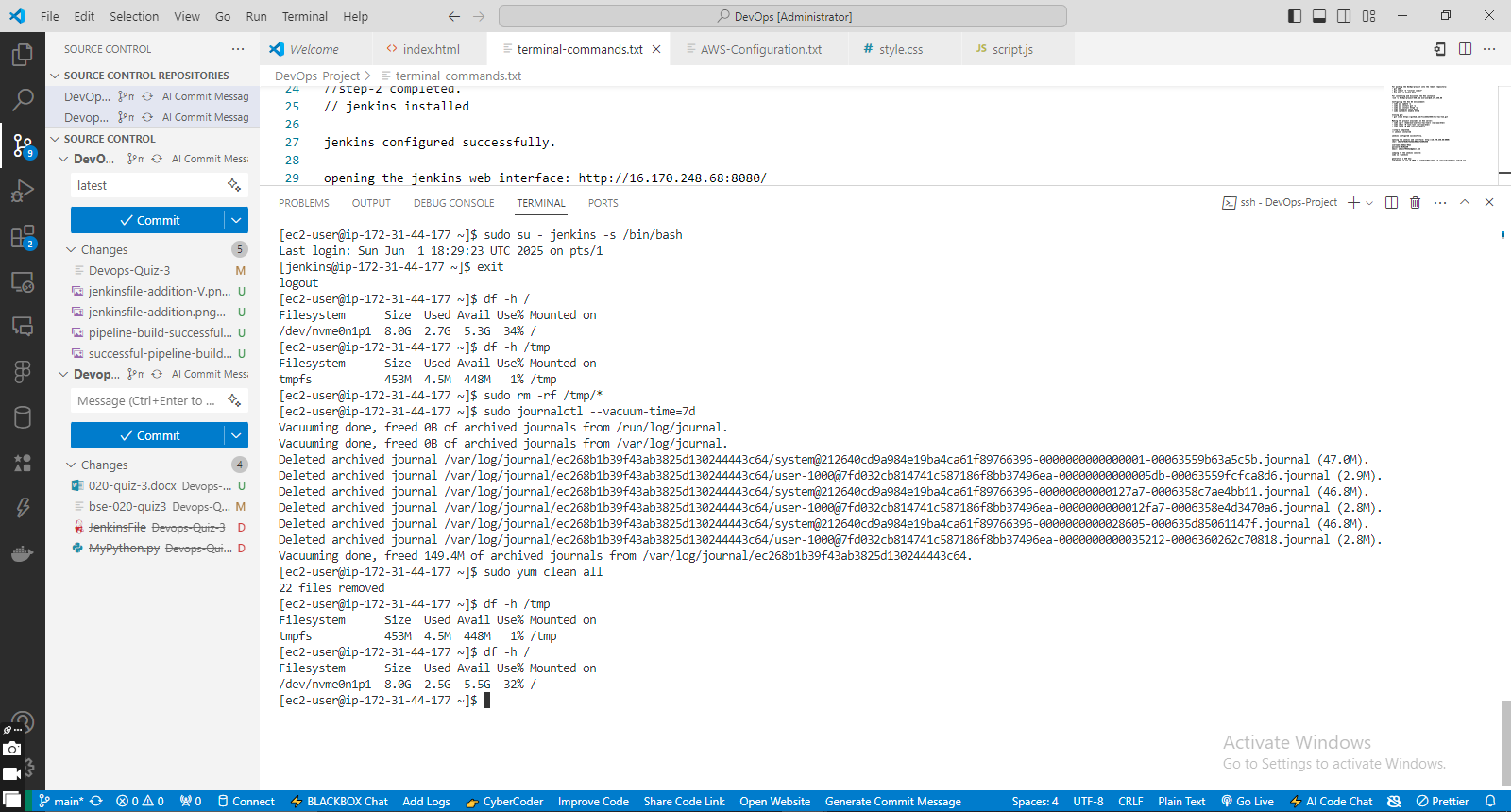
1. Game: [Rock Paper Scissors Game](http://16.170.248.68/)

2. Jenkins dashboard: [Dashboard - Jenkins](http://16.170.248.68:8080/)

3. GitHub repo: [flickShot555/tic-tac-toe](https://github.com/flickShot555/tic-tac-toe)

Problems faced:

We faced a lot of problems while setting the node ‘online’ for running the Jenkins job. As the threshold amount of vacant memory was more than the actual amount of free memory.



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