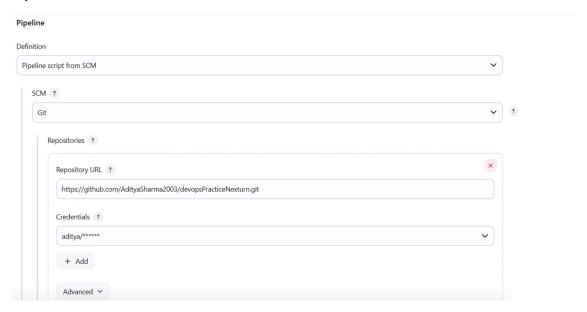
Exercise 5: Pipeline Job - Deploy a Flask Application with Gunicorn

- 1. Objective: Automate the deployment of a Flask application with Gunicorn on Windows.
- 2. Steps:
 - a. Create a Pipeline Job.
 - b. Write a Jenkinsfile to:
 - Clone a Flask application from GitHub.
 - Set up a Python virtual environment.
 - Install required packages using pip install -r requirements.txt.
 - Configure and start the Gunicorn server: gunicorn -b 127.0.0.1:8000 app:app
 - Verify the deployment using a curl command in the pipeline.
 - c. Add stages for:
 - Unit tests using pytest.
 - Post-deployment endpoint checks.
- 2. Task: Trigger the pipeline and ensure the Flask app is accessible on localhost

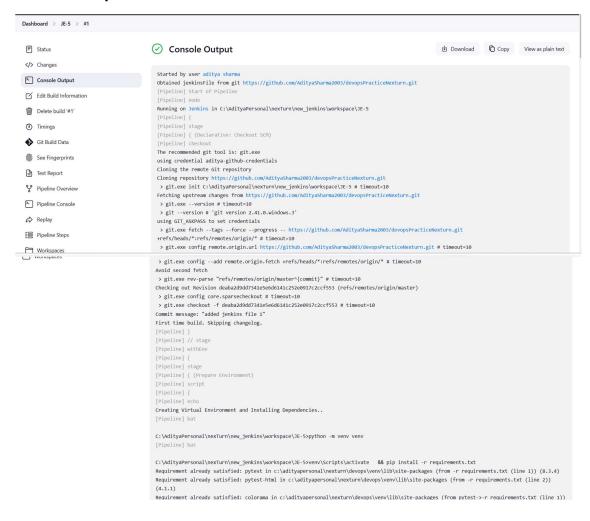
Configurations

Pipeline:





Console Output:



```
Requirement already satisfied: colorama in c:\adityapersonal\nexturn\devops\venv\lib\site-packages (from pytest->-r requirements.txt (line 1))
(0.4.6)
 Requirement already satisfied: iniconfig in c:\adityapersonal\nexturn\devops\venv\lib\site-packages (from pytest->-r requirements.txt (line already satisfied)). The content of the cont
1)) (2.0.0)
 Requirement already satisfied: packaging in c:\adityapersonal\nexturn\devops\venv\lib\site-packages (from pytest->-r requirements.txt (line
 1)) (24.2)
 Requirement already satisfied: pluggy<2,>=1.5 in c:\adityapersonal\nexturn\devops\venv\lib\site-packages (from pytest->-r requirements.txt
 Requirement already satisfied: jinja2>=3.0.0 in c:\adityapersonal\nexturn\devops\venv\lib\site-packages (from pytest-html->-r requirements.txt
 Requirement already satisfied: pytest-metadata>=2.0.0 in c:\adityapersonal\nexturn\devops\veny\lib\site-packages (from pytest-html->-r
 requirements.txt (line 2)) (3.1.1)
Requirement already satisfied: MarkupSafe>=2.0 in c:\adityapersonal\nexturn\devops\venv\lib\site-packages (from jinja2>=3.0.0->pytest-html->-r
requirements.txt (line 2)) (3.0.2)
[notice] A new release of pip is available: 23.2.1 -> 24.3.1
[notice] To update, run: C:\AdityaPersonal\nexTurn\devops\venv\Scripts\python.exe -m pip install --upgrade pip
  [Pipeline] }
[Pipeline] // script
 [Pipeline] }
[Pipeline] // stage
  [Pipeline] stage
   [Pipeline] { (Run Tests)
 Running tests and Generating Reports..
[Pipeline] bat
 \textbf{C:} A dity a \textit{Personal} \\ \text{nexTurn} \\ \text{new\_jenkins} \\ \text{workspace} \\ \text{JE-5-venv} \\ \text{Scripts} \\ \text{activate} \\ \text{\& pytest --junitxml=reports/results.xml --left} \\ \text{or all the personal} \\ 
 html=reports/report.html
                                                                          === test session starts =:
platform win32 -- Python 3.11.5, pytest-8.3.4, pluggy-1.5.0
rootdir: C:\AdityaPersonal\nexTurn\new_jenkins\workspace\JE-5
plugins: html-4.1.1, metadata-3.1.1
collected 2 items
tests\test example.pv ..
                                                                                                                                                                                                           [100%]
 - generated xml file: C:\AdityaPersonal\nexTurn\new_jenkins\workspace\JE-5\reports\results.xml -
- Generated html report: file:///C:/AdityaPersonal/nexTurn/new_jenkins/workspace/JE-5/reg
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
 Archiving Reports
 Archiving artifacts
Recording fingerprints
 [htmlpublisher] Archiving HTML reports...
 [htmlpublisher] Archiving at BUILD level C:\AdityaPersonal\nexTurn\new_jenkins\workspace\JE-5\reports to C:\AdityaPersonal\nexTurn\new_ienkins\iohs\JE-5\hilds\Thmlrenorts\Text_288enort
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
 Archiving Reports
 Archiving artifacts
Recording fingerprints
[Pipeline] publishHTML
[htmlpublisher] Archiving HTML reports...
[htmlpublisher] Archiving at BUILD level C:\AdityaPersonal\nexTurn\new_jenkins\workspace\JE-5\reports to C:\AdityaPersonal\nexTurn\new_jenkins\jobs\JE-5\builds\1\htmlreports\Test_20Report
[htmlpublisher] Copying recursive using current thread
 [Pipeline] // stage
 [Pipeline] // withEnv
Finished: SUCCESS
```

Reports.html:

report.html

Report generated on 18-Jan-2025 at 12:21:52 by pytest-html v4.1.1

Environment

Summary

2 tests took 1 ms.

(Un)check the boxes to filter the results.

There are still tests running.

Reload this page to get the latest results!

OF Paised, 2 Passed, 10 Skipped, 10 Expected failures, 10 Unexpected passes, 10 Errors, 10 OF Reruns Show all delbis. 11 Hed all deltalis

Result Test Duration Links

Results.xml:

This XML file does not appear to have any style information associated with it. The document tree is shown below.

... </testsuite>

... </testsuites>