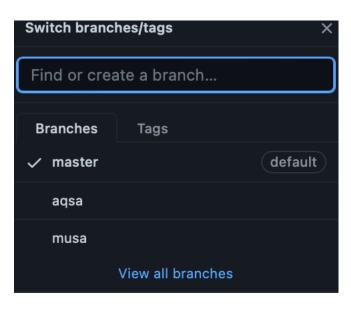
MLOPS Assignment 1

Musa Cheema i191765, Aqsa Rahman i191908

Step 1#

We Scaffolded https://github.com/kuangliu/pytorch-cifar Made two branches

- o musa
- o aqsa



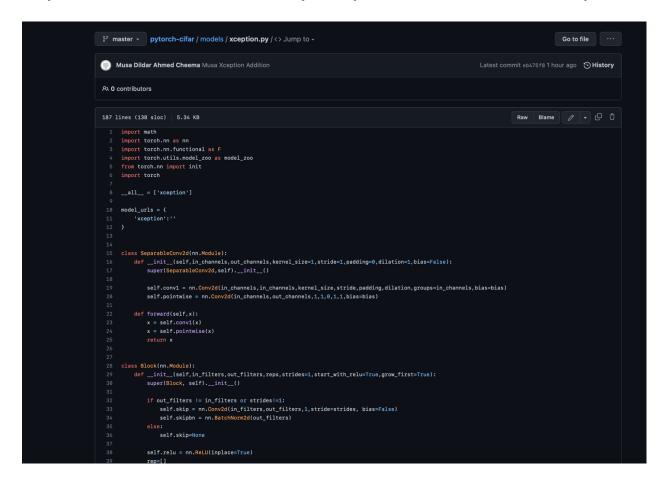
Step 2# Added Security Analysis and CodeQL in Workflow

```
29 lines (24 sloc) 648 Bytes
     name: Security Analysis with CodeQL
     on:
       push:
         branches: [main]
  7 jobs:
      analyze:
         runs-on: ubuntu-latest
         steps:
           - name: Checkout repository
 11
 12
             uses: actions/checkout@v2
 13
           - name: Setup CodeQL
             uses: github/codeql-action/init@v1
 15
             with:
 17
               languages: python
 18
           - name: Build CodeQL database
 19
             uses: github/codeql-action/analyze@v1
             with:
 21
               query: security-features.ql
 22
 23
               languages: python
               database-path: codeql-db
 25
           - name: Upload SARIF results
 27
             uses: github/codeql-action/upload-sarif@v1
             with:
 29
               sarif_file: codeql-results.sarif
```

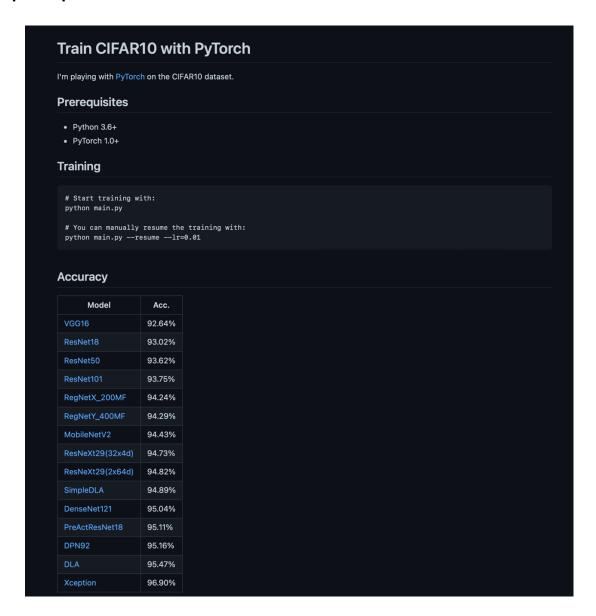
Step 3# Added Black and Document Generator

```
jobs:
  format:
    runs-on: ubuntu-latest
   steps:
     - name: Checkout code
       uses: actions/checkout@v2
     - name: Set up Python
       uses: actions/setup-python@v2
       with:
         python-version: 3.8
     - name: Install dependencies
        run: pip install black
     - name: Run Black
        run: black .
 build:
    runs-on: ubuntu-latest
   steps:
     - name: Checkout repository
       uses: actions/checkout@v2
     - name: Install dependencies
        run:
          sudo apt-get update
          sudo apt-get install -y python3-sphinx
     - name: Build documentation
        run:
          sphinx-build -b html docs/ build/
      - name: Publish documentation
        uses: peaceiris/actions-gh-pages@v3.7.0
       with:
          personal_token: ${{ secrets.GH_PAGES_TOKEN }}
         publish_dir: ./build/
```

Step 4# Added new model to the Repo Xception a contribution to the Repo



Step 5# Updated the Readme

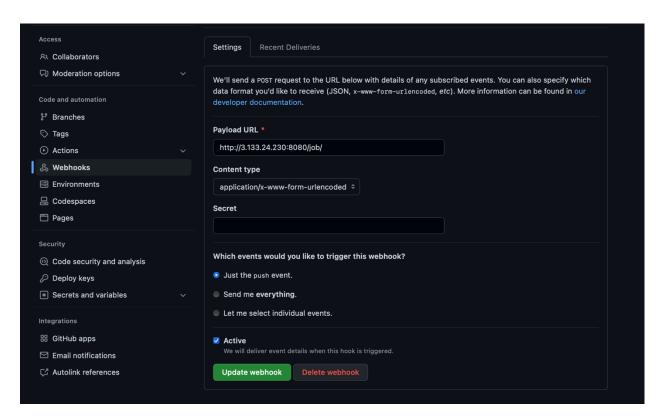


Step 6# Created a DockerFile For Jenkins on AWS EC2

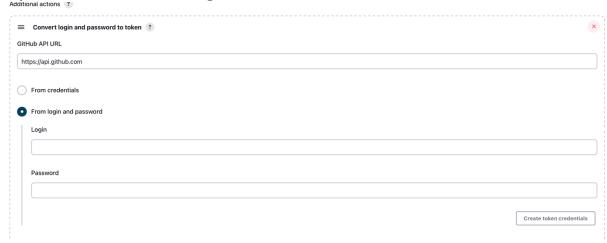
```
1 FROM jenkins/jenkins:2.375.3
2 USER root
3 RUN apt-get update && apt-get install -y lsb-release
4 RUN curl -fsSLo /usr/share/keyrings/docker-archive-keyring.asc \
5 https://download.docker.com/linux/debian/gpg
6 RUN echo "deb [arch=$(dpkg --print-architecture) \
7 signed-bys/usr/share/keyrings/docker-archive-keyring.asc] \
8 https://download.docker.com/linux/debian\
9 $(lsb_release -cs) stable" > /etc/apt/sources.list.d/docker.list
10 RUN apt-get update && apt-get install -y docker-oe-cli
11 USER jenkins
12 RUN jenkins-plugin-cli --plugins "blueocean docker-workflow"
13
14
15 # sudo docker exec id cat /var/jenkins_home/secrets/initialAdminPassword
```

Step 7# Created a Github Webhock and PipeLine

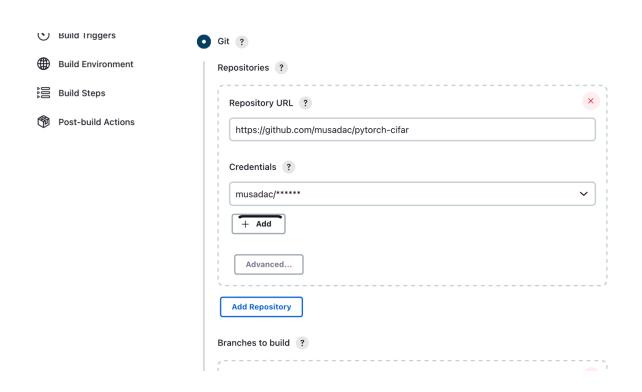
GitHub hook trigger for GITScm polling ?

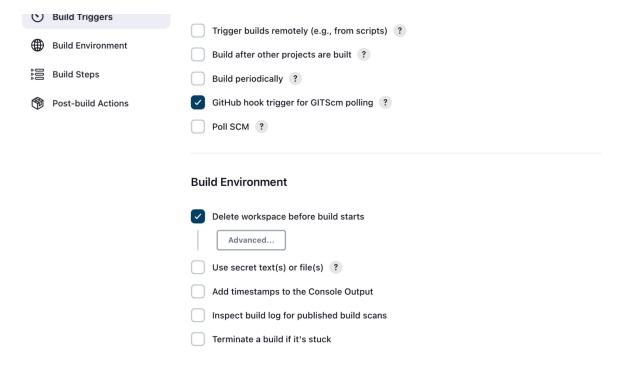


Step 8# Created a Jenkin Login

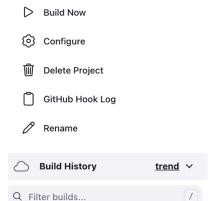


Step 9# New FreeStyle Project and Configure





Disable Project



Feb 24, 2023, 1:30 PM

Feb 24, 2023, 1:17 PM

Feb 24, 2023, 1:11 PM

Feb 24, 2023, 1:08 PM Atom feed for all Atom feed for failures

× #2

<u>⊗ #1</u>

Permalinks

- Last build (#4), 4 min 28 sec ago
- Last stable build (#4), 4 min 28 sec ago
- Last successful build (#4), 4 min 28 sec ago
- Last failed build (#2), 23 min ago
- Last unsuccessful build (#2), 23 min ago
- Last completed build (#4), 4 min 28 sec ago

≡ Status

</>

Changes

Console Output

View as plain text

[7] Edit Build Information

Delete build '#4'

Polling Log

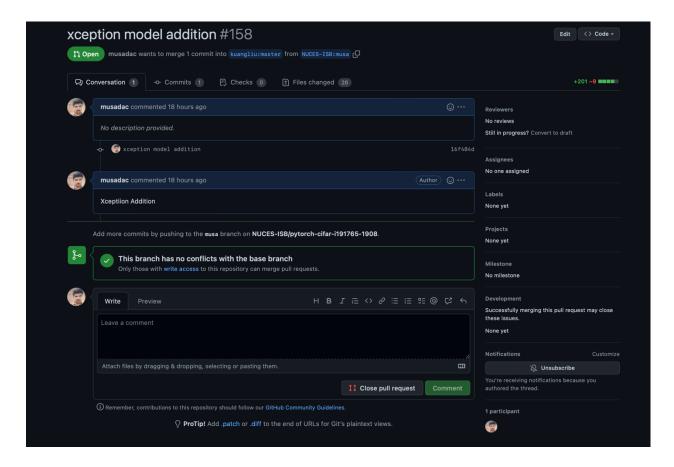
Git Build Data

← Previous Build

Onsole Output

Started by GitHub push by musadac Running as SYSTEM Building in workspace /var/lib/jenkins/workspace/pyTorch-cifar [WS-CLEANUP] Deleting project workspace... [WS-CLEANUP] Deferred wipeout is used... [WS-CLEANUP] Done The recommended git tool is: NONE using credential 415537c6-1795-436e-8ae3-04d577f82386 Cloning the remote Git repository Cloning repository https://github.com/musadac/pytorch-cifar > git init /var/lib/jenkins/workspace/pyTorch-cifar # timeout=10 Fetching upstream changes from https://github.com/musadac/pytorch-cifar > git --version # timeout=10 > git --version # 'git version 2.34.1' using GIT_ASKPASS to set credentials > git fetch --tags --force --progress -- https://github.com/musadac/pytorchcifar +refs/heads/*:refs/remotes/origin/* # timeout=10 > git config remote.origin.url https://github.com/musadac/pytorch-cifar # timeout=10 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10 Avoid second fetch > git rev-parse refs/remotes/origin/master^{commit} # timeout=10 Checking out Revision 9c5099a3322fb46e63baadc5da005ff6fa8854b5 (refs/remotes/origin/master) > git config core.sparsecheckout # timeout=10 > git checkout -f 9c5099a3322fb46e63baadc5da005ff6fa8854b5 # timeout=10 Commit message: "Update black.yaml" > git rev-list --no-walk 65a5a5cc5449215aac6c21a921094c5e9d46e98f # timeout=10 [pyTorch-cifar] \$ /bin/sh -xe /tmp/jenkins10661022750886305455.sh + pip install black Defaulting to user installation because normal site-packages is not writeable Requirement already satisfied: black in /var/lib/jenkins/.local/lib/python3.10/site-packages (23.1.0) Requirement already satisfied: pathspec>=0.9.0 in /var/lib/jenkins/.local/lib/python3.10/site-packages (from black) (0.11.0) Requirement already satisfied: tomli>=1.1.0 in /var/lib/jenkins/.local/lib/python3.10/site-packages (from black) (2.0.1) Requirement already satisfied: mypy-extensions>=0.4.3 in /var/lib/jenkins/.local/lib/python3.10/site-packages (from black) (1.0.0) Requirement already satisfied: click>=8.0.0 in /usr/lib/python3/dist-packages (from black) (8.0.3) Requirement already satisfied: packaging>=22.0 in /var/lib/jenkins/.local/lib/python3.10/site-packages (from black) (23.0) Requirement already satisfied: platformdirs>=2 in /var/lib/jenkins/.local/lib/python3.10/site-packages (from black) (3.0.0)

Step 10 # Created a Pull request to Original Author



Code QL Analysis

- 1. This Sets the name of the workflow to "Security Analysis with CodeQL".
- 2. Triggers the workflow to run when you push changes to the main branch of the repository.
- 3. Defines a job called "analyze" that runs on the latest version of Ubuntu.
- 4. Checks out your repository code.
- 5. Sets up CodeQL for Python.
- 6. Builds a CodeQL database using the **security-features.ql** query and the **python** language.
- 7. Uploads the CodeQL results in SARIF format to the GitHub Security tab for review.