



National University
of computer and emerging sciences

Assignment 1

MLOps

Group Members:

Member 1:

Name: Jiyad Khan

Roll Number: 19I-1771

Member 2:

Name: Arsalan Ahmed

Roll Number: 19I-1875

Section: B

Introduction

Forked repository:

https://github.com/Alex-Lekov/AutoML_Alex

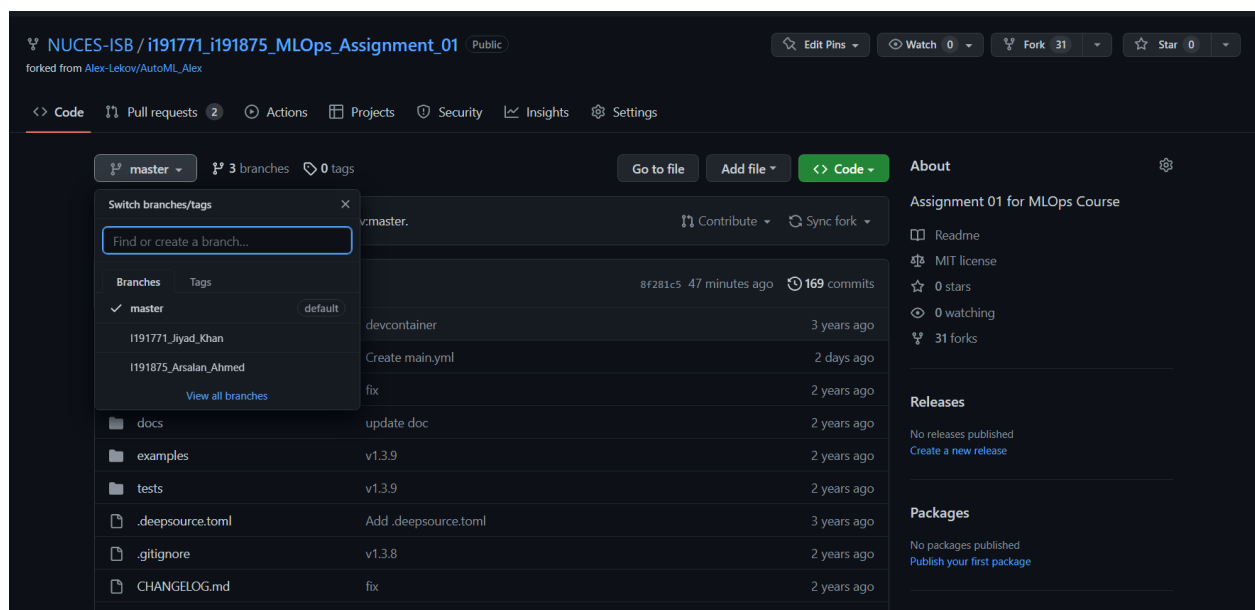
Our repository:

https://github.com/NUCES-ISB/i191771_i191875_MLOps_Assignment_01

This repository contains code for Automated Machine Learning Python Library on the Tabular Data using Smart Hyper parameter Optimization (HPO).

GitHub Action

First all of, we created two branches one for each group member



Then we created workflow for each branch and run the test. The structure of our yml file is below:

master

i191771_i191875_MLOps_Assignment_01 / .github / workflows / codeql.yml

View runsGo to file...

jiyadkhan10 Create codeql.yml ✓

Latest commit e097170 2 days agoHistory

1 contributor

76 lines (64 sloc) | 2.88 KB

RawBlame

```
1 # For most projects, this workflow file will not need changing; you simply need
2 # to commit it to your repository.
3 #
4 # You may wish to alter this file to override the set of languages analyzed,
5 # or to provide custom queries or build logic.
6 #
7 # ***** NOTE *****
8 # We have attempted to detect the languages in your repository. Please check
9 # the 'language' matrix defined below to confirm you have the correct set of
10 # supported CodeQL languages.
11 #
12 name: "CodeQL"
13
14 on:
15   push:
16     branches: [ "master" ]
17   pull_request:
18     # The branches below must be a subset of the branches above
19     branches: [ "master" ]
20   schedule:
21     - cron: '25 23 * * 4'
22
23 jobs:
24   analyze:
25     name: Analyze
26     runs-on: ubuntu-latest
27     permissions:
28       actions: read
29       contents: read
30       security-events: write
```

master

i191771_i191875_MLOps_Assignment_01 / .github / workflows / main.yml

View runsGo to file...

jiyadkhan10 Create main.yml ✓

Latest commit 9f361fe 2 days agoHistory

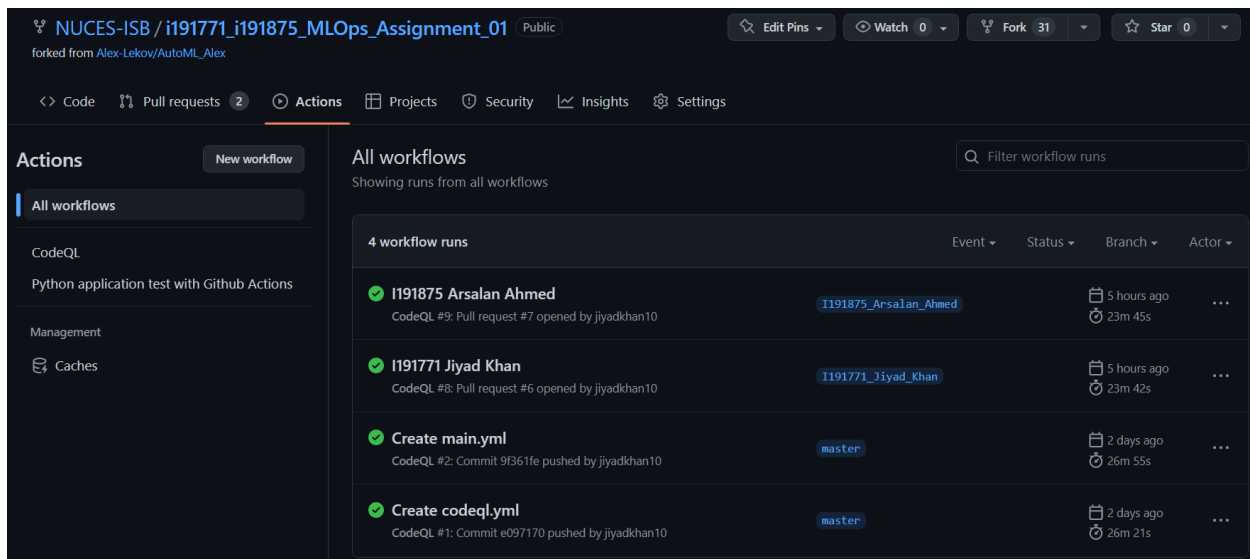
1 contributor

22 lines (22 sloc) | 446 Bytes

RawBlame

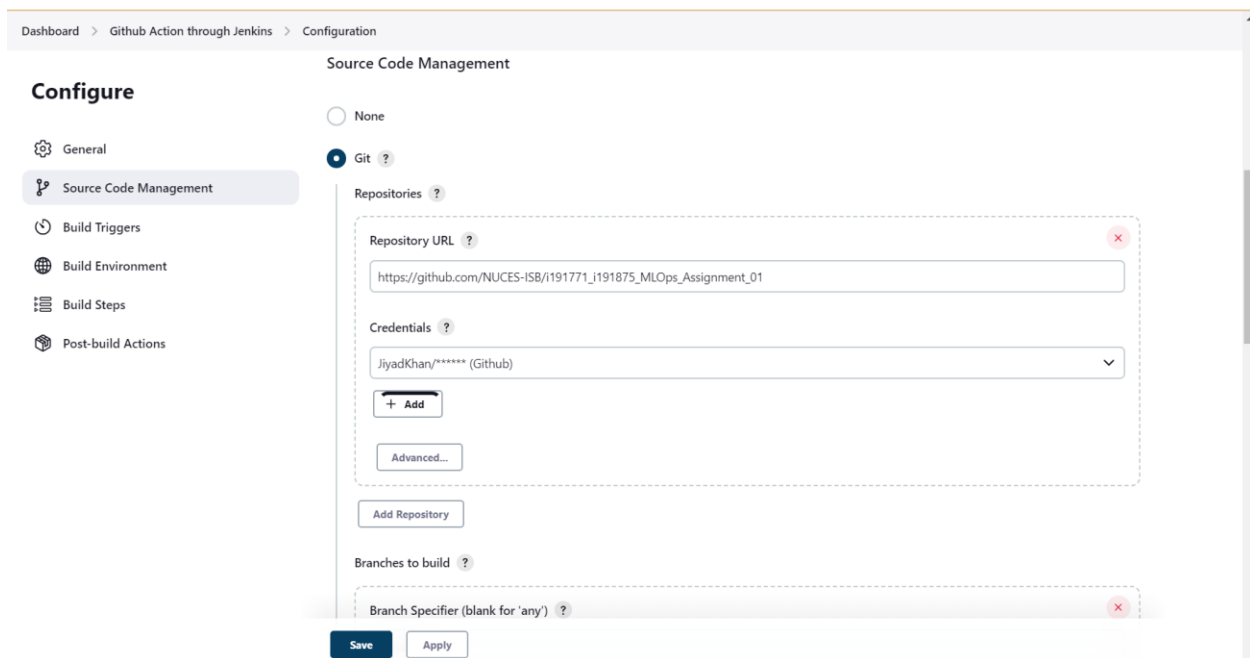
```
1 name: Python application test with Github Actions
2 on:
3   push:
4     branches: [ main ]
5 jobs:
6   build:
7     runs-on: ubuntu-latest
8     steps:
9       - uses: actions/checkout@v2
10       - name: Set up Python 3.10.9
11         uses: actions/setup-python@v1
12         with:
13           python-version: 3.10.9
14       - name: Install dependencies
15         run: |
16           make install
17       - name: Lint
18         run: |
19           make lint
20       - name: Test
21         run: |
22           make test
```

Above code perform certain actions as shown below in the github actions tab.



JENKINS

For building a Jenkins job we ran Jenkins on localhost 8080 and used the Github link as shown in the image



Then we executed build commands on both branch and master that were successful as shown in the following image



Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#1'

Git Build Data

Console Output

```
Started by user Jiyad Khan
Running as SYSTEM
Building in workspace C:\Users\hp\.jenkins\workspace\Github Action through Jenkins
The recommended git tool is: C:\Program Files\Git\bin\git.exe
using credential 0605ba36-e041-4ae6-937a-e2a9a697fcb9
> C:\Program Files\Git\bin\git.exe rev-parse --resolve-git-dir C:\Users\hp\.jenkins\workspace\Github Action through Jenkins\.git #
timeout=10
Fetching changes from the remote Git repository
> C:\Program Files\Git\bin\git.exe config remote.origin.url https://github.com/NUCES-ISB/i191771_i191875_MLOps_Assignment_01 #
timeout=10
Fetching upstream changes from https://github.com/NUCES-ISB/i191771_i191875_MLOps_Assignment_01
> C:\Program Files\Git\bin\git.exe --version # timeout=10
> git --version # 'git version 2.39.2.windows.1'
using GIT_ASKPASS to set credentials Github
> C:\Program Files\Git\bin\git.exe fetch --tags --force --progress -- https://github.com/NUCES-ISB/i191771_i191875_MLOps_Assignment_01
+refs/heads/*:refs/remotes/origin/* # timeout=10
> C:\Program Files\Git\bin\git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision 8f281c53263306bb17452f8ee004a4c7d9485b96 (refs/remotes/origin/master)
> C:\Program Files\Git\bin\git.exe config core.sparsecheckout # timeout=10
> C:\Program Files\Git\bin\git.exe checkout -f 8f281c53263306bb17452f8ee004a4c7d9485b96 # timeout=10
Commit message: "Delete Jenkinsfile"
First time build. Skipping changelog.
Finished: SUCCESS
```

https://github.com/NUCES-ISB/i191771_i191875_MLOps_Assignment_01