

Continuous Integration - Using Github Actions - Setting up workflow

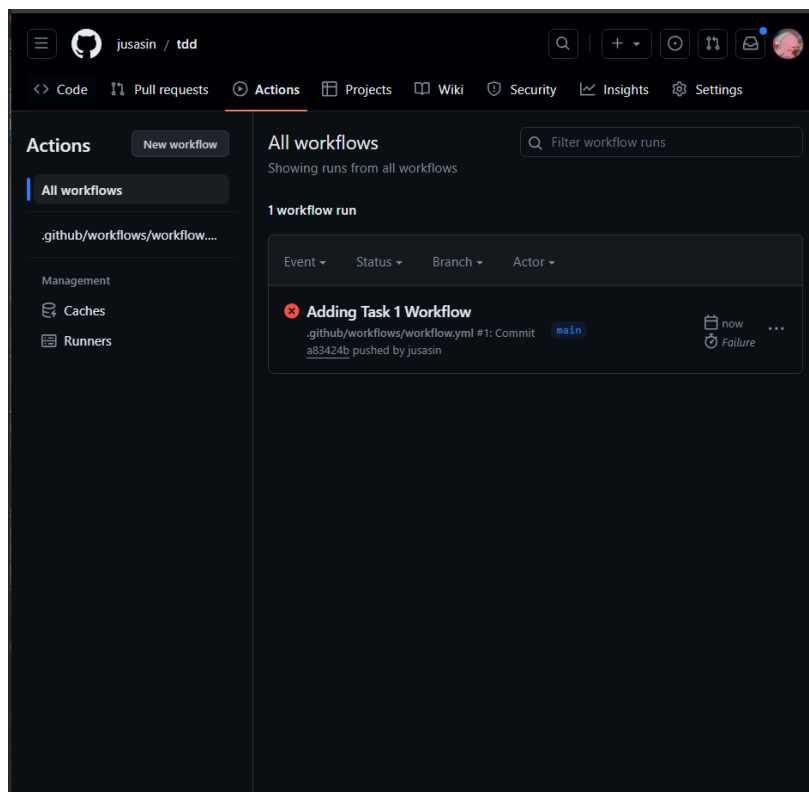
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Link to GitHub: <https://github.com/jusasin/tdd>

Task 1:

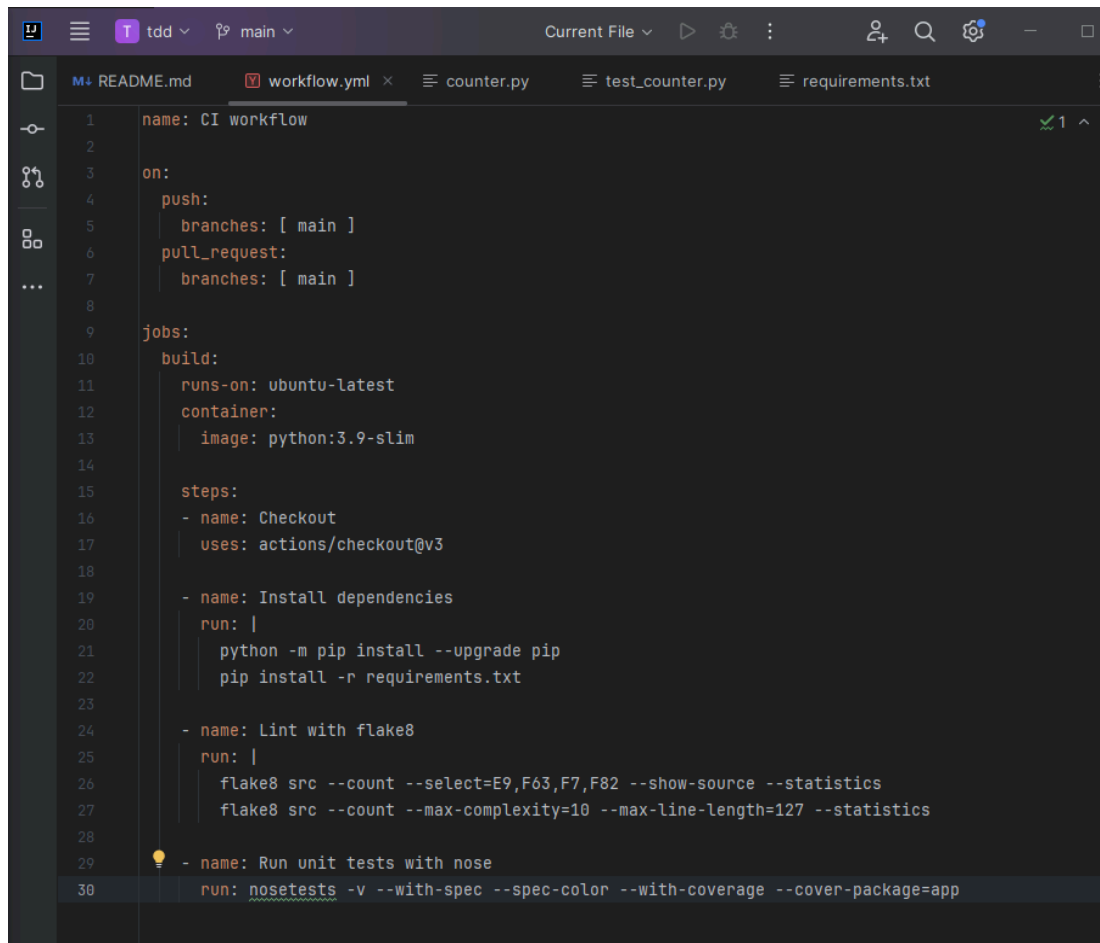
```
1  name: CI workflow
2
3  on:
4    push:
5      branches: [ main ]
6    pull_request:
7      branches: [ main ]
8
9  jobs:
10   build:
11     runs-on: ubuntu-latest
12     container:
13       image: python:3.9-slim
```

- Picture of the code I did for task 1



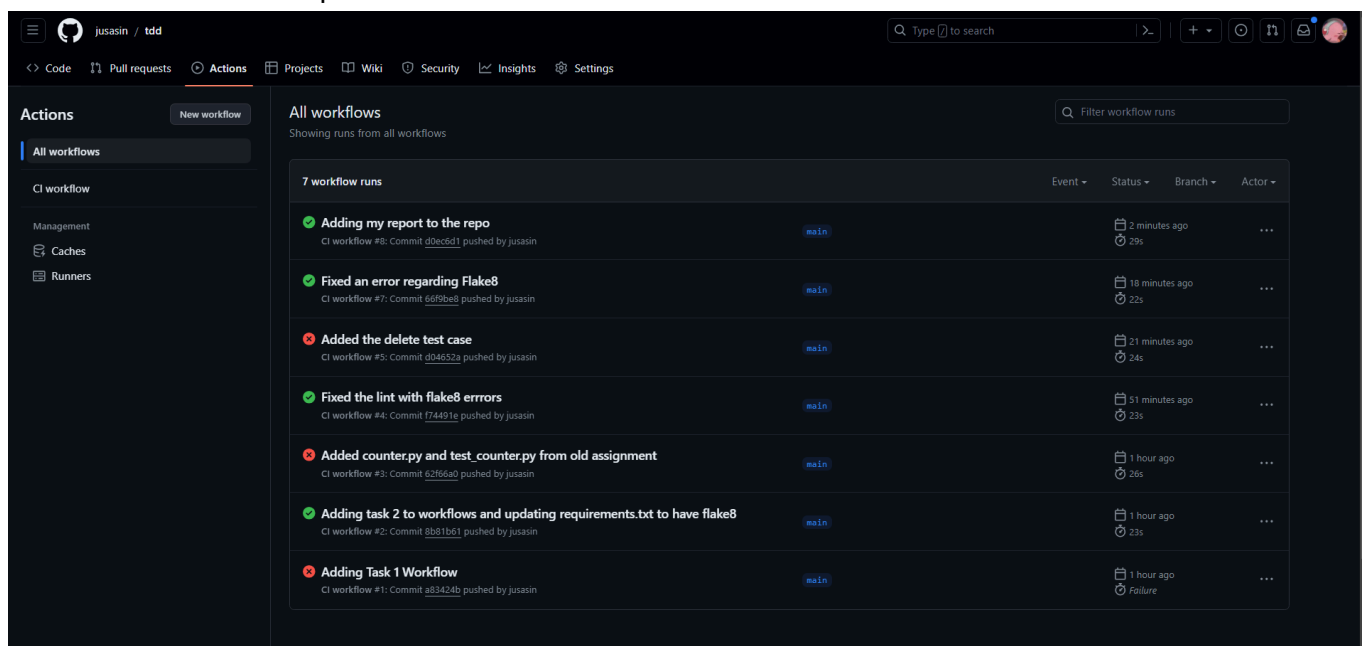
- Picture of the Actions tab from my GitHub

Task 2:



```
1 name: CI workflow
2
3 on:
4   push:
5     branches: [ main ]
6   pull_request:
7     branches: [ main ]
8
9 jobs:
10  build:
11    runs-on: ubuntu-latest
12    container:
13      image: python:3.9-slim
14
15    steps:
16      - name: Checkout
17        uses: actions/checkout@v3
18
19      - name: Install dependencies
20        run: |
21          python -m pip install --upgrade pip
22          pip install -r requirements.txt
23
24      - name: Lint with flake8
25        run: |
26          flake8 src --count --select=E9,F63,F7,F82 --show-source --statistics
27          flake8 src --count --max-complexity=10 --max-line-length=127 --statistics
28
29      - name: Run unit tests with nose
30        run: nosetests -v --with-spec --spec-color --with-coverage --cover-package=app
```

- Picture of the steps from task 2.



The screenshot shows the GitHub Actions interface for the repository 'jusiasin / tdd'. The 'Actions' tab is selected, and the 'All workflows' section is active. A table lists 7 workflow runs, each with a status icon, a description, the workflow name and commit, the branch, the time since the run, and an actor icon.

Event	Status	Branch	Actor
Adding my report to the repo	Success	main	jusiasin
Fixed an error regarding Flake8	Success	main	jusiasin
Added the delete test case	Failure	main	jusiasin
Fixed the lint with flake8 errors	Success	main	jusiasin
Added counter.py and test_counter.py from old assignment	Failure	main	jusiasin
Adding task 2 to workflows and updating requirements.txt to have flake8	Success	main	jusiasin
Adding Task 1 Workflow	Failure	main	jusiasin

- Adding my workflow to GitHub, picture of the action tab.

Creating Delete Test Case:

```
def test_delete_a_counter(self):
    """Test to delete a counter"""
    #Create a counter
    result = self.client.post('/counters/deleteCounter')
    #Check that it was created successfully
    self.assertEqual(result.status_code, status.HTTP_201_CREATED)
    #Delete the created counter
    deleteResult = self.client.delete('/counters/deleteCounter')
    #Check that there is no counter that exists
    self.assertEqual(deleteResult.status_code, status.HTTP_204_NO_CONTENT)
    #delete a counter that doesnt even exists
    notReal = self.client.delete('counters/fakeCounter')
    #check that it is not found
    self.assertEqual(notReal.status_code, status.HTTP_404_NOT_FOUND)
```

- For the test case I created a new counter and made sure that it was created successfully. Then I tried to delete the counter I already had and checked that it no longer exists afterwards. Then I tried to delete a counter that did not exist and checked that by using NOT_FOUND status code.

```
Justin@Justin MINGW64 ~/CS472/cs472-group4/tdd (main)
$ nosetests

Counter tests
- It should create a counter
- Test to delete a counter (FAILED)
- It should return an error for duplicates
- Test to read a counter
- Tests to update Counters

=====
FAIL: Test to delete a counter
=====
```

- Picture of running nosetests of the new test, it had an error code with 405 != 204 and we can see that my delete test counter failed.

```
@app.route('/counters/<name>', methods=['DELETE'])
def delete_counter(name):
    """Delete a counter"""
    app.logger.info(f"Request to delete counter: {name}")
    if name not in COUNTERS:
        return {"Message": f"Counter {name} not found"}, status.HTTP_404_NOT_FOUND
    del COUNTERS[name]
    return '', status.HTTP_204_NO_CONTENT
```

- Adding the new function for delete. Really just copied and paste most of the actions from create and changed a few things up.

```
Justin@Justin MINGW64 ~/CS472/cs472-group4/tdd (main)
$ nosetests

Counter tests
- It should create a counter
- Test to delete a counter
- It should return an error for duplicates
- Test to read a counter
- Tests to update Counters

Name          Stmts  Miss  Cover   Missing
-----
src\counter.py    27     0   100%
src\status.py     6     0   100%
-----
TOTAL             33     0   100%
-----
Ran 5 tests in 0.189s

OK
```

- Picture of adding the new function and showing that it passed and there is 100% coverage on all the lines.