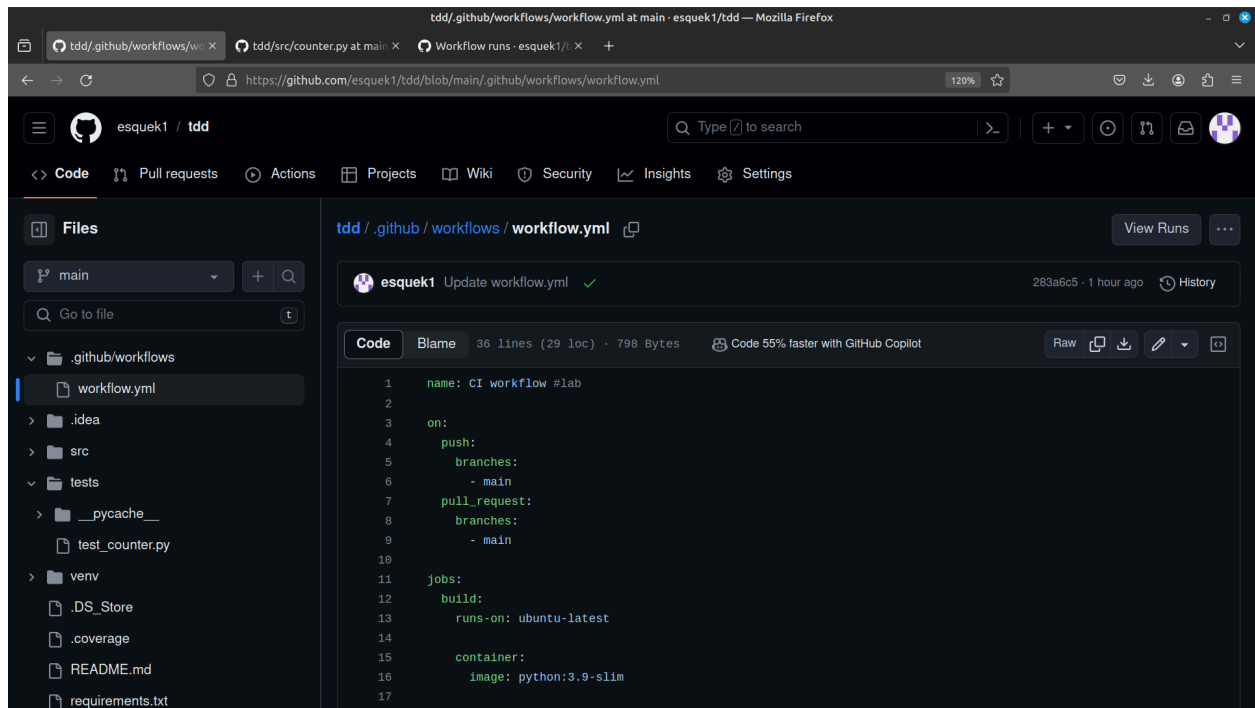


Kelly Esquejo
Lab 3

Repo: <https://github.com/esquek1/tdd.git>

Task 1:

To create a workflow, I added the name, event triggers, jobs, and a container. Ran to the problem of having unnecessary indents, which I decided to add a yaml plugin in VScode to help me with the indentation. This gave me an error of invalid workflow file because 'steps' was missing after pushing.

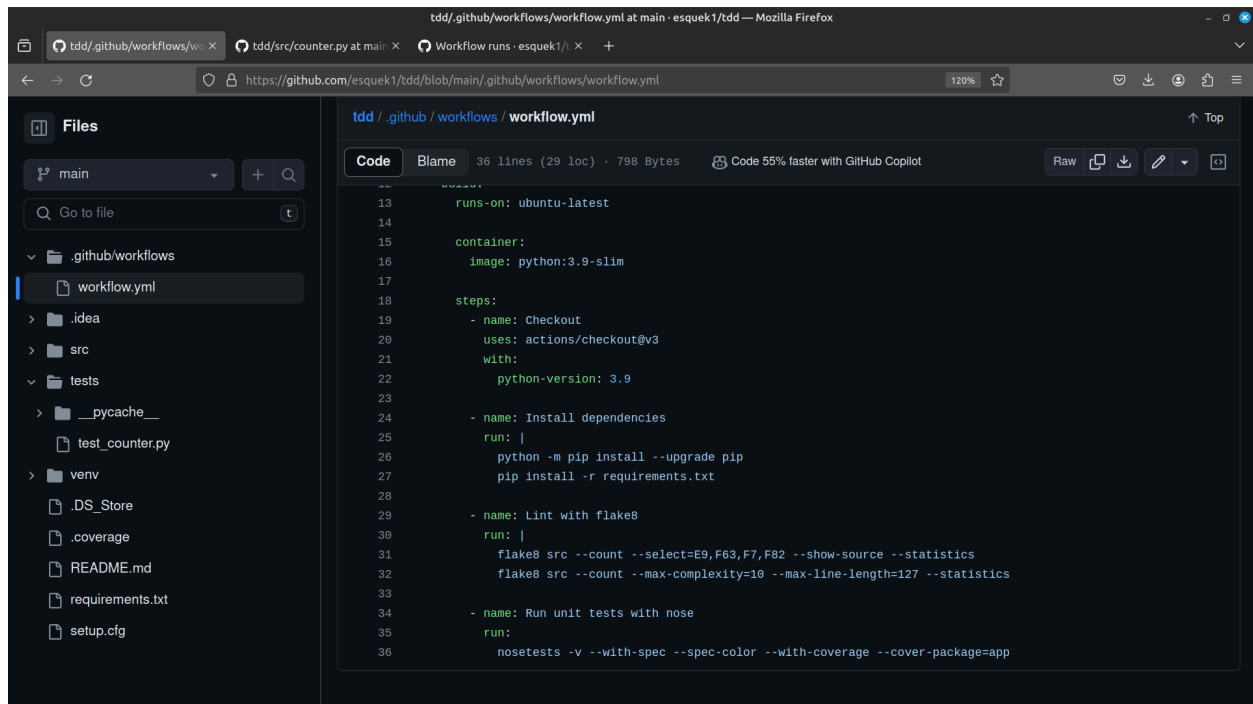


The screenshot shows a web browser displaying a GitHub repository page for the file `workflow.yml` in the `esquek1/tdd` repository. The file is located at `tdd/.github/workflows/workflow.yml`. The commit history shows a recent update by `esquek1` titled "Update workflow.yml" with commit hash `283a6c5` from 1 hour ago. The file content is displayed in a dark-themed editor, showing a YAML configuration for a CI workflow. The workflow is named "CI workflow #1ab" and is triggered on a push to the main branch or a pull request to the main branch. It includes a job named "build" that runs on the `ubuntu-latest` runner and uses a `python:3.9-slim` container. The file is 36 lines long, 29 lines of code, and 798 bytes. The editor also shows a sidebar with the file explorer, listing the repository's structure, including `.github/workflows`, `.idea`, `src`, `tests`, `__pycache__`, `venv`, `.DS_Store`, `.coverage`, `README.md`, and `requirements.txt`.

```
1  name: CI workflow #1ab
2
3  on:
4    push:
5      branches:
6        - main
7    pull_request:
8      branches:
9        - main
10
11  jobs:
12    build:
13      runs-on: ubuntu-latest
14
15      container:
16        image: python:3.9-slim
17
```

Task 2:

This task consisted of building the steps of the pipeline. After the checkout step, the workflow needs to install the dependencies which requires two commands of pip. I needed to add flake8 to the requirements text file for the next step for the flake8 commands. Last step is to run the nosetests command, which reports the code coverage using the previous labs test coverage.



The screenshot shows a web browser displaying a GitHub repository. The left sidebar shows the file structure with folders like .idea, src, tests, and .venv. The main area shows the content of the file `workflow.yml` in the `tdd/.github/workflows/` directory. The file contains a GitHub Actions workflow with the following steps:

```
13 runs-on: ubuntu-latest
14
15 container:
16   image: python:3.9-slim
17
18 steps:
19   - name: Checkout
20     uses: actions/checkout@v3
21     with:
22       python-version: 3.9
23
24   - name: Install dependencies
25     run: |
26       python -m pip install --upgrade pip
27       pip install -r requirements.txt
28
29   - name: Lint with flake8
30     run: |
31       flake8 src --count --select=E9,F63,F7,F82 --show-source --statistics
32       flake8 src --count --max-complexity=10 --max-line-length=127 --statistics
33
34   - name: Run unit tests with nose
35     run: |
36       nosetests -v --with-spec --spec-color --with-coverage --cover-package=app
```

Creating Delete test

The steps to create the delete method are similar to how update was created. First, I created the counter to be deleted. Then called `self.client.delete` to delete the counter and ensured that it returned as a success with `204_NO_CONTENT`. This is the **RED** phase.

Update counter.py · esque1

tdd@src:counter.py at main · X

Update counter.py · esque1

X

+

https://github.com/esque1/tdd/actions/runs/7882702512/job/21508322149

Summary

Jobs

build

Run details

Usage

Workflow file

build

failed now in 18s

Beta Give feedback Search logs

Run unit tests with nose 8s

```
1 ▶ Run nosetests -v --with-spec --spec-color --with-coverage --cover-package=app
2 nose.config: INFO: Ignoring files matching ['\\.', '^_', '^setup\\.py$']
3 nose.plugins.cover: INFO: Coverage report will include only packages: ['src', 'app']
4
5
6 Counter tests
7 - It should create a counter
8 - It should delete the counter (FAILED)
9 - It should return an error for duplicates
10 - It should return the counter
11 - It should update a counter
12
13 /usr/local/lib/python3.9/site-packages/coverage/inout.py:503: CoverageWarning: Module app was never imported. (module-not-imported)
14 self.warn(f"Module {pkg} was never imported.", slug="module-not-imported")
15
16 =====
17 FAIL: It should delete the counter
18 -----
19 Traceback (most recent call last):
20   File "/_work/tdd/tdd/tests/test_counter.py", line 96, in test_delete_counter
21     self.assertEqual(delete.status_code, status.HTTP_404_NOT_FOUND)
22 AssertionError: 500 != 404
23 ----- >> begin captured logging << -----
24 src.counter: INFO: Request to create counter: foofoo
25 src.counter: INFO: Request to delete counter: foofoo
26 src.counter: INFO: Request to delete counter: barbar
27 src.counter: ERROR: Exception on /counters/barbar [DELETE]
28 Traceback (most recent call last):
29   File "/usr/local/lib/python3.9/site-packages/flask/app.py", line 1463, in wsgi_app
30     response = self.full_dispatch_request()
31   File "/usr/local/lib/python3.9/site-packages/flask/app.py", line 873, in full_dispatch_request
32     return self.finalize_request(rv)
```

The screenshot shows a web browser window with multiple tabs. The active tab is 'tdd/src/counter.py at main · esque11/tdd - Mozilla Firefox'. The address bar displays the URL 'https://github.com/esque11/tdd/blob/main/src/counter.py'. On the left, a file explorer sidebar shows the project structure, with 'src/counter.py' highlighted. The main area of the browser shows the code for 'counter.py', with line numbers 22 through 52 visible. The code is a Python script that uses Flask to create a REST API for a counter. It includes endpoints for updating and deleting the counter, and it uses a global dictionary to store the counter's value. The right sidebar shows the 'status' section, which includes a list of references and a search bar. The code in the main area is as follows:

```
22 def update_counter(name):
23     # 1. Create a route for method PUT on endpoint /counters/<name>.
24     app.logger.info(f"Request to update counter: {name}")
25     # 2. Create a function to implement that route.
26     global COUNTERS
27     if name in COUNTERS:
28         # 3. Increment the counter by 1.
29         COUNTERS[name] += 1
30     # 4. Return the new counter and a 200 OK return code.
31     return (name: COUNTERS[name]), status.HTTP_200_OK
32     return ("Message": f"Counter {name} does not exists"), status.HTTP_404_NOT_FOUND
33
34
35 @app.route('/counters/<name>', methods=['GET'])
36 def read_counter(name):
37     app.logger.info(f"Request to read counter: {name}")
38     global COUNTERS
39     # return the count and 200 OK return code
40     if name in COUNTERS:
41         return (name: COUNTERS[name]), status.HTTP_200_OK
42     return ("Message": f"Counter {name} does not exists"), status.HTTP_404_NOT_FOUND
43
44
45 @app.route('/counters/<name>', methods=['DELETE'])
46 def delete_counter(name):
47     app.logger.info(f"Request to delete counter: {name}")
48     global COUNTERS
49     # Delete the count and 204 NO_CONTENT
50     # if name in COUNTERS:
51     del COUNTERS[name]
52     return ("Message": f"Counter {name} has been deleted"), status.HTTP_204_NO_CONTENT
```

build

succeeded 1 minute ago in 14s

- > Install dependencies 7s
- > Lint with flake8 0s
- > Run unit tests with nose 1s

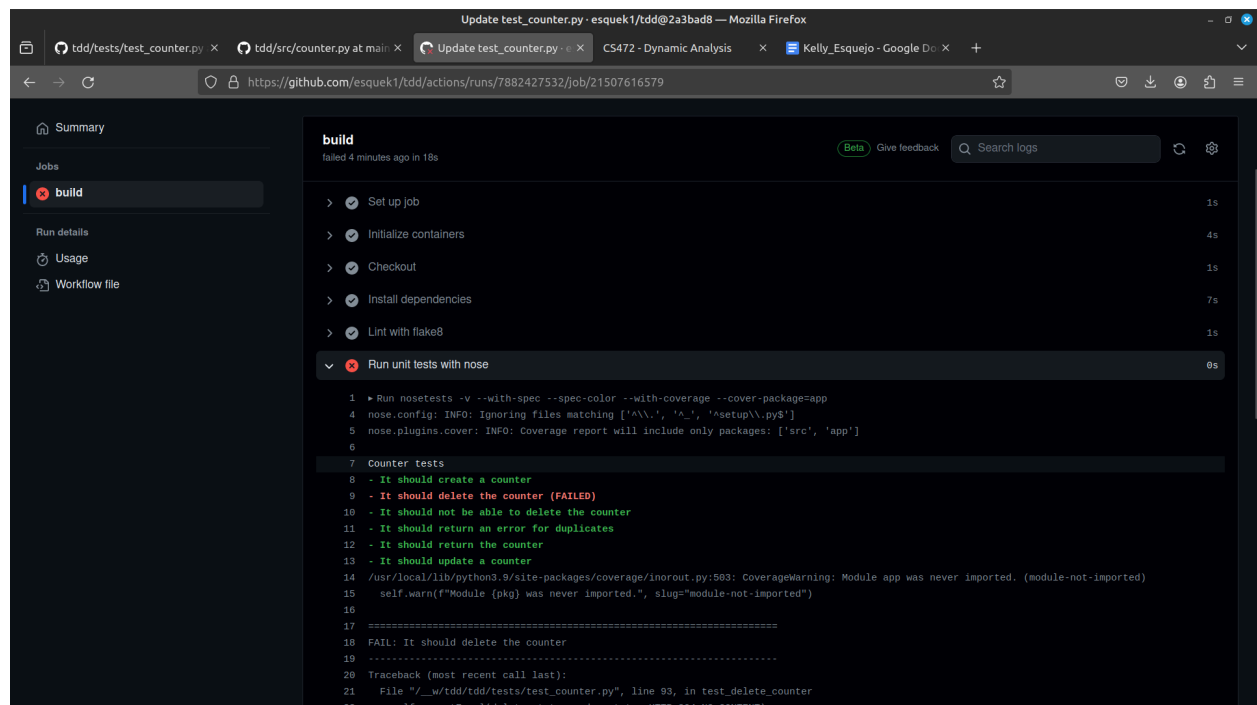
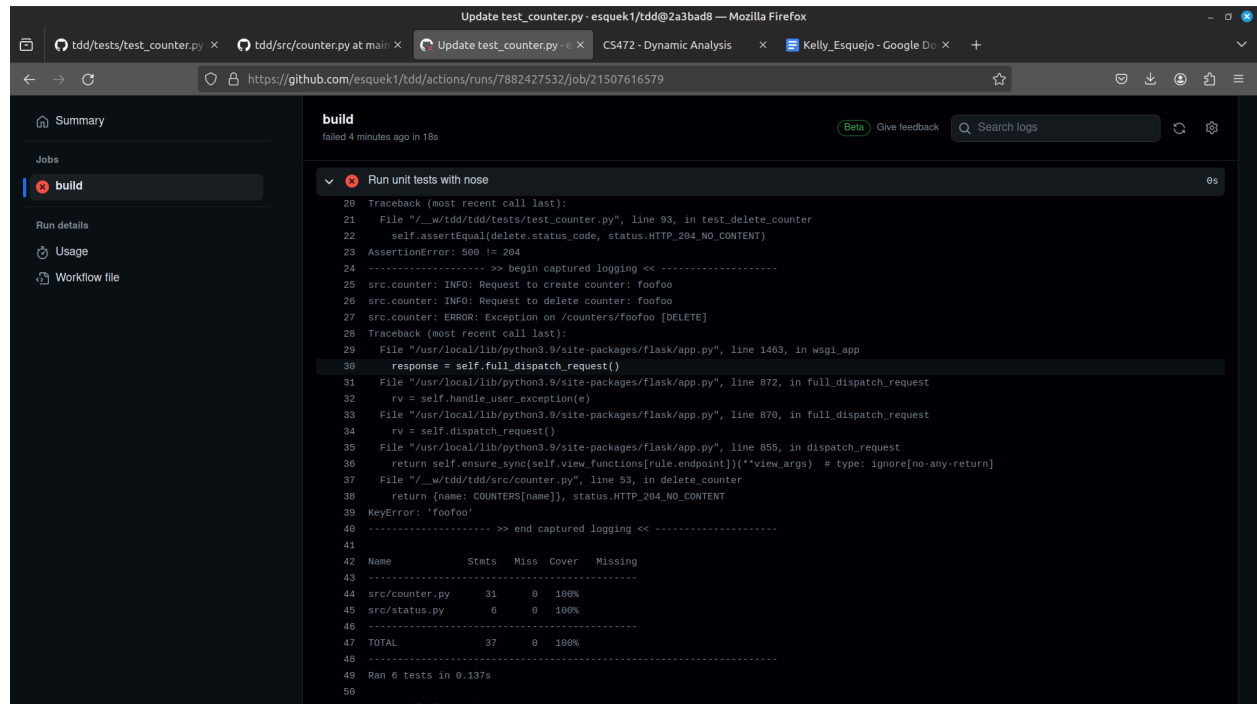
```

1 ▶ Run nosetests -v --with-spec --spec-color --with-coverage --cover-package=app
2   nose.config INFO: Ignoring files matching ['^\\\\\\.', '^\\.\\.\\.'] *setup\\.py$}
3   nose.plugins.cover INFO: Coverage report will include only packages: {'src', 'app'}
4
5 Counter tests
6 - It should create a counter
7 - It should delete the counter
8 - It should return an error for duplicates
9 - It should return the counter
10 - It should update a counter
11 /usr/local/lib/python3.9/site-packages/coverage/inorout.py:503: CoverageWarning: Module app was never imported. (module-not-imported)
12     self.warn(f'Module {pkg} was never imported.', slug='module-not-imported')
13
14 Name      Stats    Miss Cover Missing
15 -----
16 src/counter.py       29     0 100%
17 src/status.py         6     0 100%
18 -----
19 TOTAL                35     0 100%
20 -----
21 Ran 5 tests in 0.136s
22
23 OK
24
25 Post Checkout

```

Name	Stats	Miss	Cover	Missing
src/counter.py	29	0	100%	
src/status.py	6	0	100%	
TOTAL	35	0	100%	

Another requirement I added is if the name being deleted did not exist, return a 404_NOT_FOUND. We are in the **RED** phase again.



Next is to **REFACTOR** counter.py. By adding a return message of 404_NOT_FOUND if the name is not in COUNTERS. I get the phase **GREEN** again.

The screenshot shows a web browser window displaying a GitHub Actions workflow run. The address bar indicates the URL is https://github.com/esqueek1/tdd/actions/runs/7882695618/job/21508303854. The page title is "Update test_counter.py · X". The left sidebar contains navigation links: Summary, Jobs, Run details, Usage, and Workflow file. The main area displays the build process:

- Summary**: succeeded now in 16s.
- Jobs**: A single job named "build" is shown, which succeeded.
- Run details**: The job consists of three steps:
 - Install dependencies (7s)
 - Lint with flake8 (0s)
 - Run unit tests with nose (0s)
- Workflow file**: The source code for the workflow is visible, showing a sequence of tasks: Run nosetests, lint, and test.

The output of the "Run unit tests with nose" step is displayed as follows:

```
1 ▶ Run nosetests -v --with-spec --spec-color --with-coverage --cover-package=app
2 nose.config: INFO: Ignoring files matching ['^\\.\\.\\.', '^\\.\\.\\.py$']
3 nose.plugins.cover: INFO: Coverage report will include only packages: ['src', 'app']
4
5 Counter tests
6
7 - It should create a counter
8 - It should delete the counter
9 - It should return an error for duplicates
10 - It should return the counter
11 - It should update a counter
12 /usr/local/lib/python3.9/site-packages/coverage/inorout.py:583: CoverageWarning: Module app was never imported. (module-not-imported)
13 self.warn(f"Module {pkg} was never imported.", slug="module-not-imported")
14
15 Name      Stats   Miss Cover   Missing
16 -----
17 src/counter.py    31     0  100%
18 src/status.py      6     0  100%
19 TOTAL            37     0  100%
```