

Comp0034-cw2i-TommyLau-bit:

Test code:

```
import requests
from selenium.webdriver.support import expected_conditions as EC
from selenium.webdriver.support.ui import WebDriverWait
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys

def test_server_running(live_server):
    """Test that the server is running."""
    url = live_server
    response = requests.get(url)
    assert response.status_code == 200, f"Failed to access server at {url}. Status code: {response.status_code}"

def test_element_value(chrome_driver, live_server):
    """Test the value of an element on the page."""
    chrome_driver.get(live_server)
    element = chrome_driver.find_element(By.ID, "recent-cases-heading")
    element.click()
    highlights_element = chrome_driver.find_element(By.ID, "dashboard-metrics-heading")
    highlights_value = highlights_element.text
    assert highlights_value == "Dashboard Metrics"

def test_home_page(client):
    response = client.get('/')
    assert response.status_code == 200
    assert b"Recent Cases" in response.data
    assert b"Recent Complaints" in response.data
    assert b"Dashboard Metrics" in response.data

def test_case_detail(client):
    response = client.get('/case/2')
    assert response.status_code == 200
    assert b"Case Details" in response.data
    assert b"Type:" in response.data
    assert b"Status:" in response.data

def test_list_cases(client):
    response = client.get('/cases')
    assert response.status_code == 200
    assert b"FOIA Case" in response.data
```

```

def test_search_functionality(chrome_driver, live_server):
    """Test the search functionality on the home page."""
    chrome_driver.get(live_server)
    search_input = chrome_driver.find_element(By.ID, "search-input")
    search_input.send_keys("FOIA Case")
    search_input.send_keys(Keys.ENTER)

    # Wait for the search results to load
    WebDriverWait(chrome_driver, 10).until(
        EC.visibility_of_element_located((By.ID, "search-results"))
    )

    search_results_section = chrome_driver.find_element(By.ID, "search-results")
    assert "FOIA Case" in search_results_section.text

def test_navigation_to_case_detail(chrome_driver, live_server):
    """Test navigation to a case detail page from the home page."""
    chrome_driver.get(live_server)
    # Wait for the first 'View Case' link to be clickable
    WebDriverWait(chrome_driver, 10).until(
        EC.element_to_be_clickable((By.CSS_SELECTOR, ".view-case-link")) # Select
by class
    )

    # Click the first 'View Case' link
    view_case_links = chrome_driver.find_elements(By.CSS_SELECTOR, ".view-case-
link")
    if view_case_links:
        view_case_links[0].click()

    # Ensure the page has navigated to 'Case Details'
    WebDriverWait(chrome_driver, 10).until(
        EC.presence_of_element_located((By.CSS_SELECTOR, "h2"))
    )
    assert "Case Details" in chrome_driver.page_source, "Failed to navigate to Case
Details page."

```

evidence:

```
(.venv) Tommys-MacBook-Pro:comp0034-cw2i-TommyLau-bit tommy$ pytest -v
===== test session starts =====
platform darwin -- Python 3.8.6, pytest-8.1.1, pluggy-1.4.0 -- /Users/tommy/github-classroom/comp0034-cw2i-TommyLau-bit/.venv/bin/python3
cachedir: .pytest_cache
rootdir: /Users/tommy/github-classroom/comp0034-cw2i-TommyLau-bit
configfile: pyproject.toml
plugins: flask-1.3.0, dash-2.15.0
collected 7 items

tests/test_src_flask.py::test_server_running PASSED [ 14%]
tests/test_src_flask.py::test_element_value PASSED [ 28%]
tests/test_src_flask.py::test_home_page PASSED [ 42%]
tests/test_src_flask.py::test_case_detail PASSED [ 57%]
tests/test_src_flask.py::test_list_cases PASSED [ 71%]
tests/test_src_flask.py::test_search_functionality PASSED [ 85%]
tests/test_src_flask.py::test_navigation_to_case_detail PASSED [100%]



===== warnings summary =====
tests/test_src_flask.py::test_case_detail
/Users/tommy/github-classroom/comp0034-cw2i-TommyLau-bit/.venv/lib/python3.8/site-packages/flask_sqlalchemy/query.py:30: LegacyAPIWarning:
The Query.get() method is considered legacy as of the 1.x series of SQLAlchemy and becomes a legacy construct in 2.0. The method is now available as Session.get() (deprecated since: 2.0) (Background on SQLAlchemy 2.0 at: https://sqlalche.me/e/b8d9)
  rv = self.get(ident)

-- Docs: https://docs.pytest.org/en/stable/how-to/capture-warnings.html
===== 7 passed, 1 warning in 8.47s =====
```

Tools and Techniques:

Source code control:

```
(.venv) Tommys-MacBook-Pro:comp0034-cw2i-TommyLau-bit tommy$ git add .
(.venv) Tommys-MacBook-Pro:comp0034-cw2i-TommyLau-bit tommy$ git commit -m "week 8"
[main 192dd8c] week 8
3 files changed, 78 insertions(+), 3 deletions(-)
create mode 100644 src/forms.py
create mode 100644 templates/add_form.html
(.venv) Tommys-MacBook-Pro:comp0034-cw2i-TommyLau-bit tommy$ git push origin main
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 2 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (7/7), 1.61 KiB | 822.00 KiB/s, done.
Total 7 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
To https://github.com/ucl-comp0035/comp0034-cw2i-TommyLau-bit.git
c329b6a..192dd8c main -> main
(.venv) Tommys-MacBook-Pro:comp0034-cw2i-TommyLau-bit tommy$
```

 TommyLau-bit	week 8	192dd8c · 4 minutes ago	 4 Commits
 migrations	Initial commit		2 days ago
 src	week 8		4 minutes ago
 templates	week 8		4 minutes ago
 tests	Initial commit		2 days ago

URL: <https://github.com/ucl-comp0035/comp0034-cw2i-TommyLau-bit.git>

Set-up instructions:

```
# COMP0034 Coursework 2 2023/24
COMP0034 Coursework 2 starter repository

## MyApp

### Introduction

**App2** is a dynamic data visualization web application that leverages the REST
API (App1) to provide users with an intuitive interface for analyzing and
interpreting the Metropolitan Police Service's performance in handling Freedom of
Information Requests and Appeals. Our web app offers interactive and informative
dashboards, empowering users to gain valuable insights and make informed decisions
based on the provided data.

### Prerequisites

To work with this application, you'll need the following:

1. GitHub: You must have access to GitHub for source code control.

2. Python Environment: You should use a Python coding environment such as
Visual Studio Code, PyCharm Professional, or a similar tool.

3. Flask: This application is built using the Flask Python library to create
the core web application.

4. SQLite: SQLite is used as the database for this application.

5. ChromeDriver: If you plan to run the Selenium test code, you'll need
ChromeDriver installed and configured.

### Installation

To set up and install this application, follow these steps:

1. Clone the GitHub repository:
  ```shell
 git clone 'https://github.com/ucl-comp0035/comp0034-cw2i-TommyLau-bit.git'
  ```

2. Change to project directory:
  ```shell
 cd /Users/tommy/github-classroom/comp0034-cw2i-TommyLau-bit
  ```

3. Create and activate a virtual environment:
  ```shell
 python -m venv venv
 source venv/bin/activate # On Windows, use `venv\Scripts\activate`
  ```

4. Check pip is the latest versions: pip install --upgrade pip
```

```
5. Install dependencies:
    pip install -r requirements.txt
    pip install plotly pandas
    pip install Flask
    pip install flask_marshmallow
    pip install Flask-Migrate
    pip install marshmallow-sqlalchemy
    pip install pytest
    pip install -e .
    pip install Flask-WTF
    pip install WTForms-SQLAlchemy
    pip install selenium pytest
    # Install chromedriver too and make sure that it is within the project PATH
    pip install requests
    pip install Flask-Login

6. Run Flask application:
    python app.py or 'flask --app src run --debug'

7. To run tests:
    'pytest' or 'pytest -v'

8. Stop application:
    ctrl + c
```

References

- Use of AI- Format and idea of these two test codes:

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def test_search_functionality(chrome_driver, live_server):
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    search_input = chrome_driver.find_element(By.ID, "search-input")
    search_input.send_keys("FOIA Case")
    search_input.send_keys(Keys.ENTER)

    # Wait for the search results to load
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        EC.visibility_of_element_located((By.ID, "search-results"))
    )

    search_results_section = chrome_driver.find_element(By.ID, "search-results")
```

```

    assert "FOIA Case" in search_results_section.text

def test_navigation_to_case_detail(chrome_driver, live_server):
    """Test navigation to a case detail page from the home page."""
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    # Ensure the page has navigated to 'Case Details'
    WebDriverWait(chrome_driver, 10).until(
        EC.presence_of_element_located((By.CSS_SELECTOR, "h2"))
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    assert "Case Details" in chrome_driver.page_source, "Failed to navigate to Case
Details page."

```