

1. Unit & Integration tests - PHPUnit

Unit and integration tests written in PHPUnit can be run automatically on the recommended deployment environment (Linux - CentOS 6) by running the `run_unit_test.sh` script provided in the repository. Any necessary setup and configuration is performed automatically during deployment and the dependencies for running PHPUnit have been embedded in the repository for convenience.

Note that in order to ensure that the user running the unit tests can properly manipulate the filesystem (required for the narrative upload set of unit tests), the user running the testbench must have access to the `uploads` folder. Therefore, it is recommended you run the unit test script above as either the `root` or `apache` users, by using the 'su' binary before running any commands:

```
su -
```

Next, execute:

```
cd /var/www/html
./run_unit_test.sh
```

The test summary is output to the console and `tests/report.html`. If the XDebug PHP extension is available, a coverage report will also be automatically output to `tests/report/index.html`.

2. UI Tests - Selenium

2.1. Download Selenium IDE for Mozilla Firefox

1. If Mozilla Firefox browser is already installed, skip this step. To perform our system level tests, the Mozilla Firefox browser is needed. If the browser is not installed, go to <http://www.mozilla.org/en-US/firefox/new/> and click on the "Free Download" button and follow the instructions to set up the browser.
2. Open the Mozilla Firefox browser and go to <http://docs.seleniumhq.org/download/>
3. Under the Selenium IDE section, download the latest stable version of the Selenium IDE (2.5.0 as of writing).
4. After download is complete, install the new Selenium plugins
5. Once the plugins are installed, click on Firefox -> Web Developer -> Selenium IDE
6. A new Selenium IDE should pop-up

2.2. Opening and configuring the test suite for Selenium

1. From the Selenium IDE, click on File -> Open and search for the folder that contains "Selenium Tests Team A" along with all the other selenium tests within
2. Once the test cases are loaded in the Selenium IDE, the base url of each test case must be changed to the url in which the test suite should be run on. To do this, double click on the test case you wish to test in the list on the left hand side and enter the url in the "Base URL" text field. This must be done for each test case. Currently, the default base url is <http://soen390.vm.diffingo.com> (the development testing server).

2.3. Run the test suite

1. From the Selenium IDE, click on Actions -> Play entire test suite.
2. Wait for all tests to run
3. If a test has failed, it may be due to a weak internet connection. Double click on the test that failed and click on Actions->Play current test case to run the test again.

3. Assumptions for testing

The test cases for the YouDeliberate page were done with some assumptions known before hand. For instance, when sorting the most agreed/disagreed narratives, it is assumed the narrative number must be known ahead of time to test for the opacity changes of the bubbles. A list of preconditions and solutions to some of the tests performed is as follows:

All Test Cases: There must be 25 narratives uploaded in the system.

Admin Login Test:

Pre-condition: The administrator must not be logged in already

Solution: Log out of the administrator view

Test Moderate Narrative, Test Admin Comments View, Test Admin Narrative Comment View, Test Remove Narrative:

Pre-condition: The administrator be logged in already

Solution: Log in as an administrator before running these tests

Test Upload:

Pre-condition: The administrator be logged in, the path to the sample_narrative.zip must be changed, and the sample_narrative.zip must be a valid narrative .zip file.

Solution: Log in as an administrator and change the "value" in the type command of the test case. Currently the 3 command looks like this

```
<tr>
    <td>type</td>
    <td>name=userfile</td>
```

```
<td>C:\Users\Massimo\Downloads\sample_narratives.zip</td>
</tr>
```

Change C:\Users\Massimo\Downloads\sample_narratives.zip to the desired path of the file you wish to chose.

Test Edit Narrative:

Pre-condition: The administrator be logged in and the narrative must have at least 4 mp3 files and 3 pictures.

Solution: Log in as an administrator and make sure the last uploaded narrative is a narrative with at least 4 mp3 files and 3 pictures.

Test Flagging a Comment:

Pre-condition: There must be a comment already submitted for the narrative

Solution: Submit a comment before running the test

Test Agrees/Disagrees Sorting, Undoing Agrees/Disagrees Sorting, Switching from Agrees or Disagrees Sorting:

Pre-condition: The test takes into account the bubble that is most agreed or disagreed with and one that is less agreed or disagreed with.

Solution: Make narrative #25 be the one that is less agreed/disagreed with and narrative #4 be most agreed/disagreed with.

Test English/French Sorting, Test Undoing English/French Sorting, Test Switching between English or French Sorting.

Pre-condition: The test takes into account 2 bubbles, one that is in english and one that is in french

Solution: Make narrative #11 be an english bubble and make narrative #12 be a french narrative.

Test Most Recent:

Pre-condition: This is an unpredictable test since it can change any time a newer narrative is uploaded.

Solution: Make sure narrative #4 is not the most recent upload and add the following code right before </tbody> and replacing ****Insert Most Recent Narrative Number Here**** with the number of the narrative most recently uploaded and published:

```
<tr>
  <td>assertAttribute</td>
  <td>css=#narrative-**Insert Most Recent Narrative Number
Here**@style</td>
  <td>opacity: 1;</td>
</tr>
```