Unit Tests:

test_spell_check:

In this test, we make use of the spell_check() method to see if spell checking is working. We do this by inputting a set of incorrectly spelt words, and validate that the system can correctly fix these spelling errors. This test is important, as the spell checker is correcting all user inputs before feeding it back into the bot. If this method is not correctly working, we will not be receiving correct responses.

test_get_response:

In order to validate that our bot is sending at least some form of a response, we use this test. We do this by using get_response() within the bot file in order to ensure a response is being sent back to the user. If our bot were to fail this test, there would be no response from the bot, which is not an ideal case, and would mean something is very broken.

test_load_data:

To ensure our data library that contains all of the bot responses is being loaded correctly, we use this test. This test checks load_data() in order to ensure that nothing breaks if a file is not correctly loaded, as well as makes sure we are loading our file correctly every time.