

# "System and Unit Test Report"

Style

Style Team

July 25, 2018

## **User Stories:**

User story 1 from sprint 1: As a user, I want lots of samples from different authors because I want an accurate result.

User story 1 from sprint 2: As a user, I want to finish the whole process with one button because it is more user friendly.

User story 1 from sprint 3: As a user, I want to be able to locate the information and statistics of the result because it is more user friendly.

## **Scenarios:**

User story 1 from sprint 1:

1. User writes something in the textarea on the homepage.
2. User clicks style button.
3. User sees that there is an author selected based off of their input.

User story 1 from sprint 2:

1. User writes something in the textarea on the homepage.
2. User clicks style button.
3. User sees that it works and does not have to do anything else to get results.

User story 1 from sprint 3:

1. User writes something in the textarea on the homepage.
2. User clicks style button.
3. User scrolls down and sees two boxes next to each other with statistics.

## **Developer Stories**

Developer story 1 from sprint 1: As a developer, I want to non-poetic and more modern language data because I want to increase the accuracy of the machine.

Developer story 1 from sprint 2: As a developer, I want to use word frequency, word length, sentence length and punctuation because authors have their unique word choices and style which can increase our accuracy.

Developer story 2 from sprint 2: As a developer, I want to study machine learning and website design so that I know what is necessary to make the project work and I am more efficient when I code and debug.

Developer story 1 from sprint 3: As a developer, I want to be able to create a website that can give a string to the preprocessing code and be able to take the results and show them on the website so that the user has access to their results.

Developer story 2 from sprint 3: As a developer, I want to use machine learning so that I can give the user accurate results from their writing sample.

Developer story 3 from sprint 3: As a developer, I want to have 60% accuracy because I want to be able to give the user valid results based on the statistics from their submission and the statistics we collected from the authors.

## Scenarios

Developer and user story 1 from sprint 1:

1. Developer searches for samples of writing from authors who did not use archaic language and who did not write poetry.
2. Developer makes a text file out of these samples that is used to create a database of author statistics.
3. User enters their writing sample into the textarea on the website.
4. User clicks style.
5. User is returned an author that they write similarly to on the website.
6. User reads works of the writer and notices similarities between the author's works and the user's.

Developer and user story 1 from sprint 2:

1. Developer creates code to return statistics for frequency, word length, sentence length, and punctuation.
2. Developer implements code into website.
3. User enters their writing sample into the textarea on the website.
4. User clicks style.
5. User sees the statistics from their writing sample on the website.

Developer and user story 2 from sprint 2:

1. Developer learns about machine learning, website design, and whatever else is necessary to make the project.
2. Developer uses this knowledge to write the code.
3. Developer uses this knowledge to test the code efficiently.
4. Developer uses this knowledge to figure out what was wrong with the code when it was tested and debug the code.
5. Developer is able to finish the project faster.
6. User has access to the project sooner.

Developer and user story 1 from sprint 3:

1. Developer creates a website with all the required features.
2. Developer creates code that will process a string of text and return specific statistics about the text.
3. Developer creates a machine learning algorithm that can determine which author a sample of writing resembles the best based on a set of specific statistics.

4. Developer integrates the website, the processing code, and the machine learning algorithm into one functioning project.
5. User is able to type a sample of their writing into the website, and the processing code and machine learning algorithm will return the author that resembles their sample the best and the user's writing sample statistics.

Developer and user story 2 from sprint 3:

1. Developer creates a machine learning algorithm that can determine which author a sample of writing resembles the best based on a set of specific statistics.
2. Developer integrates the algorithm into the rest of the project.
3. User is able to type a sample of their writing into the website, and the processing code and machine learning algorithm will return the author that resembles their sample the best and the user's writing sample statistics.

Developer and user story 3 from sprint 3:

1. Developer finds samples of works from authors with significantly different from each other.
2. Developer runs processing code on authors' works.
3. Developer uses results from processing code in machine learning.
4. User enters their writing sample into the textarea on the website.
5. User clicks style.
6. User is returned an author that they write similarly to on the website.
7. User enters a different writing sample with different statistics into the textarea on the website.
8. User clicks style.
9. User is returned a different author that better matches the author on the website.
10. User enters a different writing sample with different, but very similar, statistics as the first writing sample into the textarea on the website.
11. User clicks style.
12. User is returned the same author since the statistics were close to the first author and the other authors' statistics are different enough from the first author's statistics to not affect the results.