

# Software Test Report (STR)

CMSC 447 Group 4

Project Vesta

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## **1 Scope**

### **1.1 Identification**

Vesta is a website that locates a user's ideal place to live.

### **1.2 System overview**

Vesta is a web based application that will be utilized by an average internet user. This web application is intended to allow users to acquire potential living locations based on abstract specifications regarding the area. To garner said information, the user will specify quality of life attributes desired within a defined interval. These characters may include meteorological data (ie average temperature, average weather conditions), geographical information, etc. The application will compare the inputted information to specified open source databases to determine the locations that fit the criteria. Once the locations have been determined by the software on the back-end, they will be displayed to the user.

### **1.3 Document overview**

The Software Test Report document will be used to log and categorize all the testing completed on project vesta. This document will provide an overall assessment of the software after being tested. This assessment will identify any remaining deficiencies within the software, recording the impact that these deficiencies have and the possible solutions to these problems. In addition to the solutions for these deficiencies, the document will record any possible improvements that could be made to the software as a whole. Finally the document will provide the detailed test results, providing a summary of the results, listing any deviations from expected behavior that the software had, and a chronological test log of the tests that were conducted on the software.

## **2 Referenced documents**

Section 3.2 references the software requirements that the customer would required to utilize Project Vesta outlined in the Software Requirements Specification document.

## **3 Overview of test results**

### **3.1 Overall assessment of the software tested**

The overall assessment of the software vesta is that it is running as expected. All test returned the correct results, and meet the specified customer requirements. There are two limitations to list within the software, but neither require any changes as these are have been designed within the software. These limitations include only returning an initial 20 cities to the

user and the user is required to input two search inputs into the results page to have anything returned. The default value was originally set for the user, but the customer can choose to have more city names returned after selecting the search button again. The limitation that the search page requires two or more search inputs is to construct a more robust search, as the user is limited in their inputs on the initial index page. Both limitations fit the customer requirements, nor do they hinder the performance of the software.

### **3.2 Impact of test environment**

As long as the customer uses the web browsers specified in 3.10.2 of the Software Requirements Specification document, then the test environment will not be different than that of the operational environment. Otherwise, if the customer uses any other web browser to access the software there is a possibility that when using the software the test results might differ, but the system will not be useable.

### **3.3 Recommended improvements**

An improvement to the software would that the list of cities within the right panel would automatically reset, ensuring only data from that search would be present. This improvement is a cosmetic improvement, not meeting any specific requirements and only serving to make the results more readable for the user.

## **4 Detailed test results**

### **4.1 (Project-unique identifier of a test)**

This paragraph shall identify a test by project-unique identifier and shall be divided into the following subparagraphs to describe the test results.

#### **4.1.1 Summary of test results**

As indicated in the below table, all tests performed as expected.

<b>Test</b>	<b>Completion Results</b>
1. A unit test was written that took randomly selected information that fell within acceptable ranges where generated and implemented on the backend to ensure that 95% of the cities that fit the criteria were returned within 60 seconds.	All results as expected
2. Utilized all variable inputs on the index	All results as expected

page, ensuring that the outputs matched the inputted criteria.	
3. Each button, box, slider, page, and front end web components were manually implemented independently to test that each component was working properly.	All results as expected
4. All web components on the front end were manually implemented at the same time to ensure that all components could be implemented at one time.	All results as expected
5. After completing a successful search, changed one of the search variables to ensure that new correct results were present on the map and list.	All results as expected
6. After completing a successful search, changed two of the search variables to ensure that new correct results were present on the map and list.	All results as expected
7. After completing a successful search, changed three of the search variables to ensure that new correct results were present on the map and list.	All results as expected
8. After completing a successful search, changed four of the search variables to ensure that new correct results were present on the map and list.	All results as expected
9. After completing a successful search, changed five of the search variables to ensure that new correct results were present on the map and list.	All results as expected
10. After completing a successful search, changed six of the search variables to ensure that new correct results were present on the	All results as expected

map and list.	
11. After completing a successful search, changed one of the search variables to ensure that new correct results were present on the map and list.	All results as expected
12. After completing a successful search, changed eight of the search variables to ensure that new correct results were present on the map and list.	All results as expected
13. Entered invalid search variables test to ensure that 0 was put in its place.	All results as expected
14. Tested the results page by not entering/removing search criteria and submitting that to the page to return a message that the submit button was hit but there was no results on the map or list	All results as expected
15. Only selected the max values of each search variable, ensuring that the results still appear on the map the ensures the city fits the criteria.	All results as expected
16. Only selected the min values of each search variable, ensuring that the results still appear on the map the ensures the city fits the criteria.	All results as expected
17. Click on the list of the names of cities to see if the map was zoomed onto that respective pin on the map.	All results as expected.

#### **4.1.2 Problems encountered**

##### **4.1.2.1 (Project-unique identifier of a test case)**

There were no test cases were problems occurred.

### 4.1.3 Deviations from test cases/procedures

#### 4.1.3.1 (Project-unique identifier of a test case)

There were no deviations to report.

## 5 Test log

1. A unit test was written that took randomly selected information that fell within acceptable ranges where generated and implemented on the backend to ensure that 95% of the cities that fit the criteria were returned within 60 seconds.
  - a. Test was performed on 12 May 2018 at 10:19.
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.
2. Utilized all variable inputs on the index page, ensuring that the outputs matched the inputted criteria.
  - a. Test was performed on 12 May 2018 at 10:19.
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.
3. Each button, box, slider, page, and front end web components were manually implemented independently to test that each component was working properly.

The date(s), time(s), and location(s) of the tests performed

  - a. Test was performed on 12 May 2018 at 10:19.
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.
4. All web components on the front end were manually implemented at the same time to ensure that all components could be implemented at one time.
  - a. Test was performed on 12 May 2018 at 10:19.
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.
5. After completing a successful search, changed one of the search variables to ensure that new correct results were present on the map and list.

- a. Test was performed on 14 May at 14:39
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.
6. After completing a successful search, changed two of the search variables to ensure that new correct results were present on the map and list.
  - a. Test was performed on 14 May at 14:39
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.
7. After completing a successful search, changed three of the search variables to ensure that new correct results were present on the map and list.
  - a. Test was performed on 14 May at 14:39
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.
8. After completing a successful search, changed four of the search variables to ensure that new correct results were present on the map and list.
  - a. Test was performed on 14 May at 14:39
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.
9. After completing a successful search, changed five of the search variables to ensure that new correct results were present on the map and list.
  - a. Test was performed on 14 May at 14:39
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.
10. After completing a successful search, changed six of the search variables to ensure that new correct results were present on the map and list.
  - a. Test was performed on 14 May at 14:39
  - b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
  - c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.
11. After completing a successful search, changed one of the search variables to ensure that



new correct results were present on the map and list.

- a. Test was performed on 14 May at 14:39
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.

12. After completing a successful search, changed eight of the search variables to ensure that new correct results were present on the map and list.

- a. Test was performed on 14 May at 14:39
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 14 May 2018 at 14:39 by Kaitlyn Hackley.

13. Entered invalid search variables test to ensure that error messages were shown instead of results.

- a. Test was performed on 12 May 2018 at 10:19.
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.

14. Tested the results page by not entering/removing search criteria and submitting that to the page to return an error message.

- a. Test was performed on 12 May 2018 at 10:19.
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.

15. Only selected the max values of each search variable, ensuring that the results still appear on the map the ensures the city fits the criteria.

- a. Test was performed on 12 May 2018 at 10:19.
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.

16. Only selected the min values of each search variable, ensuring that the results still appear on the map the ensures the city fits the criteria.

- a. Test was performed on 12 May 2018 at 10:19.
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.

17. Click on the list of the names of cities to see if the map was zoomed onto that respective pin on the map.

- a. Test was performed on 12 May 2018 at 10:19.
- b. The software configurations that was used for testing was Google Chrome Version 66.0.3359.139. The computer that conducted this testing had an Intel Core i7 processor.
- c. Test was performed on 12 May 2018 at 10:19 by Kaitlyn Hackley.