Computer-database web app

Functional test plan

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## Revision History

| Rev. | Date | Author | Reason for Changes |
| --- | --- | --- | --- |
| 1 | 2019-10-03 | Diego Bruno | First draft |
|  |  |  |  |
|  |  |  |  |

## Introduction

The purpose of this document is to define scope, tools and strategy to carry out functional testing of the computer-database web app.

## Scope

### Manual testing

Functional tests to provide coverage of the following areas

* Create computer
* Update computer
* Find/Filter/Sort/View computers
* Delete computers

### Automated testing

A selection of the manual tests will be automated as indicated in the "Automated" column of the Test Cases document.

## Out of scope

The following are not in scope and will not be tested.

* Cross-Browser compatibility
* Localization & Internalization
* Non-functional tests

a) Load and Performance

b) Security

c) Usability

## Test environment

### Test server

The following URL will be considered to be the test environment:

<http://computer-database.herokuapp.com/computers>

### Client configuration

|  |  |
| --- | --- |
| OS | Browser |
| Windows 10 64 bit | Chrome 77 |

## Test approach

Functional aspects of the application will be tested according to the task specification received in the file "QA\_Assignment\_Aug\_2019.pdf".

The goal of these tests is to demonstrate the QA Engineer’s ability to:

* Create manual test cases providing coverage for the defined scope
* Identify and report bugs failing the test cases
* Automate a subset of test cases for regression test purposes
* Explain the approach and justify decisions made

The functional test cases are described in a Test Cases file as described in this document (see Deliverables section). This provides coverage for the features specified in the task requirement.

Test execution and defect reporting takes place immediately after the test cases file is available. Results of this execution will be available as specified in the Deliverables section.

A selection of the Test Cases will be automated using Selenium and Java. Selenium Webdriver is used as the preferred automation framework because of being highly flexible due to its compatibility with a wide range of browsers and scripting languages. Java is the preferred language because it leverages the experience of the tester. TestNG is used to handle the automated test suite execution and report generation.

## Tools

The following tools will be utilized to perform all the test activities during this project.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Tool | Vendor | Version |
| Test Plan | Word | Microsoft | N/A |
| Test Cases | Excel | Microsoft | N/A |
| Defect reporting | Excel | Microsoft | N/A |
| Screen capturing | Screenpresso | Leampulse | 1.7.8.0 |
| Test automation | Java  Selenium  Maven  TestNG  Chrome |  | 1.8  3.8.1  3.6.0  6.11  77 |

## Deliverables

|  |  |  |
| --- | --- | --- |
| Deliverable | Contents | Location or file name |
| Test Cases | List of test cases to be executed providing coverage to the cases in scope | "Functional Test Cases" sheet in the "Test Cases – computer-database.xlsx" file |
| Test Summary | Summary information about test cases results and feature coverage | "Test Summary" sheet in the "Test Cases – computer-database.xlsx" file |
| Defect report | Details and evidence about defects found during testing | "Defects" sheet in the "Test Cases – computer-database.xlsx" file |
| Defect evidence | Evidence of issues found | See folder /docs/bug\_evidence |
| Automated tests | Files required to execute the automated tests | See "README.md" file for instructions. |

## Assumptions

The Test Server environment is properly configured, fully functional and accessible to the tester.

Code freeze is in effect. The database contents and the behavior of the application will not change during test activities.

## Risks

The client configuration is limited to Chrome, as of 2019 this browser has a market share of 63.6%

The test server is exposed to unrestricted public use and 3rd party actions. Additional verification or multiple test passes are recommended as a means to mitigate this issue.