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| Test Plan |
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| **Project Name:** Challenging DOM Webpage  **Product Name:** herokuapp.com  **Product Version:** v0.1b  **Document Version**: 1.0  **Status**: Draft  **Created**: 03/08/2017  **Last Updated**: 03/08/2017  **Author**: Philip Webb |
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# Introduction

## Purpose

This test plan will describe the testing approach and general framework that will drive testing of the 'Challenging DOM' webpage located at <https://the-internet.herokuapp.com/challenging_dom>.

The document will include information on test strategy, objectives / assumptions and test execution.

## Project Overview

The 'Challenging DOM' webpage is a simple HTML page that contains 3 coloured buttons with randomized names that redirect to the same page, a table containing text data / hyperlinks, and a canvas object that displays an image.

There is no functionality on this page aside from the buttons redirecting to the same page so testing will focus on the existence of these elements on the page and their contents/appearance.

## Audience

* The Lead Tester will perform tasks specified in this document and provide input and recommendations on the document.
* Project Manager will plan for the testing activities specified in the document and track the performance of the tests according to the plan. Approves the document and is accountable for the results.
* Stakeholder's representatives may take part in the UAT to ensure business is aligned with results of the test.

# Test Strategy

## Test Objectives

The objective of the test is to verify the elements contained on the specified webpage appear and behave according to the specifications.

The tester will execute and verify the test scripts, all high and medium severity defects as per the entrance criteria will be fixed and retested. Lower severity defects will be prioritized for future fixing via CR.

The final product of the test will be:

* A production-ready webpage.
* A set of reusable test scripts.

## Test Assumptions

* The page under test will be tested on a live production server, no test environment will be provided.
* Exploratory testing and test script development will start once the test plan has been approved.
* The page currently meets specification, any test scripts should validate that elements on the page behave and appear as they do now.
* The coloured buttons have randomized names and this is expected, as such the names will not be verified.
* The hyperlinks contained in the table ('edit' & 'delete') do not have any function, as such these elements will be validated only in that they are hyperlinks and that they are named correctly.
* The text that appears within the canvas element will need to be verified manually by the lead tester at least once each cycle, there is no way to automate this validation.
* Defects will be provided with detailed steps on how to reproduce along with screenshots and any other relevant material.
* Test case design and execution will be performed by the Lead Tester.
* System will be treated as a black box; if elements and data appear correctly online according to the specification it will be assumed back-end systems are also working correctly.

## Resources

* The Lead Tester will generate several automated test scripts that navigate the page and interact with/verify elements using the Selenium framework.
* Where appropriate tester will amend test scripts to account for low priority defects that will not be fixed before deadline.
* The Dev team will provide defect fix plans based on the Defect meetings each cycle.
* The Project Manager will provide test planning, test design and test execution support.
* Open source tools will be provided to aid the development of automated test scripts.
* PCs will be provided to develop automated tests with major browsers installed (Chrome, Firefox, Internet Explorer).

## Risks

| Risk | Prob. | Impact | Mitigation Plan |
| --- | --- | --- | --- |
| The time we have to test is on a very tight schedule, if we cannot begin testing in a timely manner we risk not being able to sign off on the site before the deadline. | High | High | Test plan has been pre-approved by the client and out of hours overtime has been allotted to complete testing in a timely manner.  Test team has already begun preparation activities. |
| We test on the production environment, there is the possibility we expose customers to potential vulnerabilities in the webpage before they have been found and fixed. | Low | High | Exploratory testing has been carried out by the client and the page has been deemed suitable for public consumption. Contact information is available to inform the client the site should be taken down should some catastrophic vulnerability be found. |
| If too many people take a holiday we will not have the resources to complete testing before the deadline. | Low | Medium | Vacation time/sick leave has been factored in to the schedule. The test team are aware of the time sensitive nature of the project and assured they will be available for the full duration. |
| If too many defects are found they may not get fixed before the deadline. | Low | Medium | A defect management system has been put into place whereby Devs and Testers are in constant contact to resolve defects in a timely manner. |
| Basic functionality of the page is unknown, buttons and hyperlinks seemingly do nothing, possible the scope will change drastically. | Medium | Medium | Extra time can be added to the deadline for possible changes in page functionality and scope of testing. One client meeting per week dedicated to discussing possible new functionality, if the scope changes during these meetings the deadline can be extended and extra resources are on hand to handle the extra workload. |
| Client is under financial scrutiny, if they do not pay their server costs the webpage may not be available to test. | Low | Medium | Client has an offline snapshot of the site and database on-hand should the live site go down. We can host this ourselves and test it on our own servers should this occur. |

# Execution Strategy

## Items Under Test

* Colour of the 3 buttons
* Visibility of the buttons
* Clicking a button will direct to the same page (essentially a page refresh)
* Existence of the 'Greek Table'
* The contents of the table headers
* The contents of the table cells
* The existence of the two 'edit' and 'delete' hyperlinks in the last column of each row in the table
* The existence of the canvas object

## Items NOT Under Test

* The text on the buttons
  + This text is randomized between a few set strings on page refresh, this means the text cannot be reliably tested.
* The functionality of the hyperlinks in the table
  + Hyperlinks do not currently have any functionality, as such this will not be tested.
* The contents of the canvas object.
  + The contents of the canvas object cannot be observed with our current automation tools, there is a possibility this can be tested in the future with something like Sikuli but that is not in scope at this stage.

## Entry Criteria

* All planning activities listed in the schedule are 100% completed.
* Project manager has been given the go ahead to begin testing by the client.
* Webpage is accessible.
* Items under test are visible on the webpage.

## Exit Criteria

* All test scripts have been executed.
* Each test script should have a log of 5 passes in succession.
* 90% medium severity defects have been closed.
* No high or critical severity defects.
* Logs of test script runs made available to the client.
* Defects captured and logged in defect tracking software.
* All remaining defects closed or marked for fix in later release.

## Schedule

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ChallengingDOM - Schedule | | | | |
| Activity | Start | End | Person Days | Resource |
| Prepare Test Plan | 02/08/2017 | 03/08/2017 | 1 | Lead Tester |
| Review Test Plan | 03/08/2017 | 03/08/2017 | 0.5 | Project Lead |
| Prepare Test Scripts | 03/08/2017 | 07/08/2017 | 1.5 | Lead Tester |
| Review Test Scripts | 07/08/2017 | 07/08/2017 | 0.5 | Project Lead |
| Establish Test Procedures | 07/08/2017 | 08/08/2017 | 1 | Lead Tester |
| Execute Testing/Record Faults | 08/08/2017 | 09/08/2017 | 1 | Lead Tester |
| Re-execute Tests as Needed | 09/08/2017 | 10/08/2017 | 1 | Lead Tester |
| Provide Support/Resolve Faults | 08/08/2017 | 10/08/2017 | 2 | Developer |
| Certify Product for Release | 11/08/2017 | 11/08/2017 | 0.5 | Project Lead |
| Possible Extension Period | 14/08/2018 | 16/08/2017 | 3 | ??? |

## Progress Meetings

A daily stand up meeting will be held each day between the Lead Tester and Project Lead to discuss progress and potential blockers. The client and/or developer may also be present if necessary.

The Project Lead and the Client will meet twice during the week to discuss progress and possible new functionality. If new functionality is agreed to be tested the schedule will be amended by the Lead Tester to account for extra time to create test cases and analyse results, a maximum of 3 extra days has been allotted.

One final meeting will be held in week ending on 11th August with all parties present to discuss testing results and whether the product will be signed off by the Project Lead. This should become apparent in the days leading up to this meeting but this gives a chance to gather deliverables and reports to hand over to the client.

# Test Results

Once testing has passed all exit criteria the Lead Tester should gather all deliverables (Test Reports, Test Scripts, their final report) and present them to the Project Lead. The Project Lead should review these and conclude whether the project is ready to be signed off.

On approving the final report all deliverables should be handed over to the client along with a final report on the state of the site.

# Approvals

Names and Titles of persons who approve this plan:

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| --- | --- |
| **Signature:** |  |
| **Name:** |  |
| **Role:** | Lead Tester |
| **Date:** |  |

|  |  |
| --- | --- |
| **Signature:** |  |
| **Name:** |  |
| **Role:** | Project Lead |
| **Date:** |  |