

Multiplicity Web Dev Project

Test Plan

Scope: Our main goal is to test the interface of the multiplicity.tech website. In other words the core goal of this testing phase is to make sure that the interface is compliant with stakeholders' wishes and that the visuals and user interface (UX) are acceptable. What also should be noted is that in order to pass the test, the test results should be valid both for the PC and mobile version of the website. We will not be testing load, and performance of the website, security testing is also out of the scope.

Approach: Our approach is to use the mechanical tests both for the PC and mobile version of the website. If the bugs are found the software will be fixed and the test will be redone with a focus on accuracy and integration validity.

Objectives: To check the website's UI and make sure that all parts are performing accordingly, both on PC and mobile.

Resources: Tests are conducted manually by us by going through the use case scenario and confirming that it works, as well as sending it to other people who have not been exposed to the development stage and ask them how their experience was going through the use cases. Typically we'd perform the latter step in person but due to the physical distancing requirements, we conduct these tests remotely.

Testing Schedule:

May 5th: Test website navigation

May 7th: Test editing articles

May 10th: Test sorting feature and randomization

May 12th: Test mobile responsiveness

May 13th: Implement feedback from any tests

May 14th: Test all features again after implementations

Use cases:

- Adding new articles
 - **Validation test:** user should be able to input an article with an easy to use template
 - **Pass/fail criteria:** user must report that the process was easy and intuitive for someone without significant exposure to the user base. Article must appear on the website with a single push to the GitHub repo, and follow the standard formatting and templating for all the articles.
- Site navigation

- **Validation test:** User can navigate through the website within the interface
- **Pass/fail criteria:** All navigation links must work and link to the correct page, navigation menu should be available and intuitive on both web and mobile versions
- Writers can embed their own HTML/CSS/files
 - **Validation test:** Add an animated code snippet to an article and test that it works within the template
 - **Pass/fail criteria:** Web page is formatted to accommodate text, images, videos, and interactive or data viz work
- User can sort through the articles
 - **Validation test:** Click on the sort option and verify that the output is correct
 - **Pass/fail criteria:** Sorting is correct and the feature is easy to use (according to our users' feedback)
- User's interface adapts to the appropriate platform of the user
 - **Validation test:** View the home page, a sample article page, the about page, and the archive page on a laptop, tablet, and mobile.
 - **Pass/fail criteria:** All features of each page must be visible and properly formatted on all three types of devices.
- User can share articles to social media platforms
 - **Validation test:** Share an article link on a social media platform and see how it is displayed
 - **Pass/fail criteria:** Meta tags for Facebook and Twitter are added to the web pages and display the content correctly when shared on social media.
- Site admin can track analytics and viewership
 - **Validation test:** View the website an additional specific number of times and check if the Google Analytics tracker is consistent with our manual test
 - **Pass/fail criteria:** Google Analytics successfully tracks website activity on all pages

Carrying out the test: Alia ElKattan, Heorhii Skovorodnikov

Taking the test: Main website system

Pass/fail criteria: Functionality is acceptable to the stakeholders, no crashes and bugs found, integration and fixes do not affect other modules in a negative way.

Test Cases

Project Name: multiplicity.tech

Test Case ID: 1

Test Priority: High

Module Name: Website Interface

Test Designed by: Heorhii Skovorodnikov

Test Designed date: 5/12/2020

Test Executed by: Heorhii Skovorodnikov

Test Execution date: 5/13/2020

Test Title: Mobile Responsiveness

Description: This test is designed to test the ability of the website to detect user interface (mobile) correctly and adjust UI accordingly.

Objective: To see if UI will react appropriately and rescale itself.

Pre-conditions: User joins from a mobile device to see the mobile version.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	View home page on mobile	NA	Works on all devices	Works on all devices	Pass	
2	View navigation on web	NA	Works on all devices	Content overlaps on mobile	Fail	Overlap fixed after testing
3	View sample article	NA	Works on all devices	Works on all devices	Pass	
4	View about page	NA	Works on all devices	Works on all devices	Pass	
5	View archive page	NA	Works on all devices	Margin too large on mobile	Fail	Margin ratio adjusted after test

Post-conditions: UI responds to the platform change, UI changes accordingly.

Project Name: multiplicity.tech**Test Case ID:** 2**Test Priority:** High**Module Name:** Website Interface**Test Designed by:** Alia ElKattan**Test Designed date:** 5/12/2020**Test Executed by:** Alia ElKattan**Test Execution date:** 5/13/2020

Test Title: Tablet Responsiveness (iPad)**Description:** This test is designed to test the ability of the website to detect user interface (mobile) correctly and adjust UI accordingly.**Objective:** To see if UI will react appropriately and rescale itself.**Pre-conditions:** User joins from a tablet device to see the tablet version.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	View home page on mobile	NA	Works on all devices	Works on all devices	Pass	
2	View navigation on web	NA	Works on all devices	Works on all devices	Pass	
3	View sample article	NA	Works on all devices	Works on all devices	Pass	
4	View about page	NA	Works on all devices	Works on all devices	Pass	
5	View archive page	NA	Works on all devices	Works on all devices	Pass	

Post-conditions: UI responds to the platform change, UI changes accordingly.

Project Name: multiplicity.tech**Test Case ID:** 3**Test Priority:** High**Module Name:** Website Interface**Test Designed by:** Alia ElKattan**Test Designed date:** 5/12/2020**Test Executed by:** Alia ElKattan**Test Execution date:** 5/13/2020**Test Title:** Article Input Through Template**Description:** User should be able to input an article with an easy to use template.**Objective:** Make sure that the article template provides all the functionality and uploads the articles instantly. The system should perform an accurate render of all code and files within the article.**Pre-conditions:** Writer entered all the necessary data into the template and clicked to upload it.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	Input article to template	Success rate: 5/5	Contributors able to add article	Template is intuitive and easy to edit	Pass	
2	Load javascript in HTML	Success rate: 5/5	HTML loads javascript template content	HTML loads javascript	Pass	
3	Verify formatting & design	Success rate: 5/5	Formatting stays consistent	Design looks fine	Pass	

Post-conditions: The article has been uploaded and rendered correctly.

Project Name: multiplicity.tech**Test Case ID:** 4**Test Priority:** High**Module Name:** Website Interface**Test Designed by:** Heorhii Skovorodnikov**Test Designed date:** 5/12/2020**Test Executed by:** Heorhii Skovorodnikov**Test Execution date:** 5/13/2020**Test Title:** Navigation Redirecting**Description:** User should be able to navigate smoothly through the website and the website should redirect the user to correct webpages.**Objective:** Make sure that every webpage redirects correctly.**Pre-conditions:** User wants to go to a different webpage on the website and clicks on the available button.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	1	Click on "Archives"	Redirect OK	Redirect OK	Pass	N/A
2	2	Click on the "multiplicity"	Redirect OK	Redirect OK	Pass	N/A
3	1	Click on "About"	Redirect OK	Redirect OK	Pass	N/A
4	2	Click on the "multiplicity"	Redirect OK	Redirect OK	Pass	N/A
5	1	Click on articles on the main page	Redirect OK	Redirect OK	Pass	N/A
6	2	Click on "multiplicity"	Redirect OK	Redirect OK	Pass	N/A

Post-conditions: Navigation through the website is smooth, no incorrect redirects.

Project Name: multiplicity.tech**Test Case ID:** 5**Test Priority:** High**Module Name:** Website Interface**Test Designed by:** Heorhii Skovorodnikov**Test Designed date:** 5/12/2020**Test Executed by:** Heorhii Skovorodnikov**Test Execution date:** 5/13/2020**Test Title:** Content Sorting

Description: Users should be able to sort all articles in the order of users' preference, right now only alphabetical ordering is available.

Objective: Make sure that the website provides acceptable sorting ability.

Pre-conditions: User clicks on archive and clicks "A-Z" sorting button.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	1	Click on "Archive"	Page load correctly	Page load correctly	Pass	N/A
2	2	Click on "A-Z"	Articles have been sorted correctly	Articles have been sorted correctly	Pass	N/A

Post-conditions: Articles are sorted correctly in an alphabetical order

Project Name: multiplicity.tech**Test Case ID:** 6**Test Priority:** High**Module Name:** Website Interface**Test Designed by:** Heorhii Skovorodnikov**Test Designed date:** 5/12/2020**Test Executed by:** Heorhii Skovorodnikov**Test Execution date:** 5/13/2020

Test Title: HTML/CSS/File Embed Ability**Description:** User can enter all code necessary into the template and it will be rendered correctly upon upload.**Objective:** Make sure that embedded code renders correctly and the website refuses erroneous code.**Pre-conditions:** Writer enters embeds the code within the template.

Step	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	Add images to webpage	Image is correctly formatted	Image is correctly formatted	Pass	
2	Embed video to webpage	Video is correctly formatted	Video is correctly formatted	Pass	
3	Embed animation code to webpage	Code is correctly formatted	Code is correctly formatted	Pass	

Post-conditions: Code is rendered correctly.

Project Name: multiplicity.tech
Test Case ID: 7
Test Priority: High
Module Name: Website Interface

Test Designed by: Alia ElKattan
Test Designed date: 5/12/2020
Test Executed by: Alia ElKattan
Test Execution date: 5/13/2020

Test Title: Analytics Tracking

Description: Admin can track website traffic and analytics.

Objective: Make sure google analytics works correctly on the website.

Pre-conditions: Admin logs on to get the data, user's data gets collected

Step	Test Data	Expected Result	Actual Result	Status (pass/fail)	Notes
1	View home page 5 times	Home views increase by 5	Home views increase by 5	Pass	
2	View sample article 5 page	Article views increase by 5	Article views increase by 5	Pass	
3	View archive 5 times	Archive views increase by 5	Archive veiws increase by 5	Pass	

Post-conditions: Data is accurately collected and displayed to the admin.

Test Results

The testing process showed that the website works fine, which can mostly be credited to our agile working model and the fact that we were continuously improving on features, communicating with our stakeholders, and improving on features and bugs.

However, it did uncover two bugs in the mobile responsiveness use case, which are that the navigation menu overlaps with the content on the home page in the mobile view, and the articles in the archive have a bit too large of a left margin in mobile view.

Both these bugs can be attributed to the fact that the measurements were made in percentage, but that percentage did not translate properly in a very narrow screen like the mobile's. As such, we changed the code to have specific styling depending on the screen size, and added three conditions for mobile, web, and tablet.

We then implemented this change to all other features on screen too, which made aspects of the design like the text and size of cards on the home screen look a lot more native to their own device (because they are).

Aside from that, all our tests passed both as we manually conducted them and as throughout our user testing.