Test Plan – Team 53

# Overall Test Plan

We implemented a very simple testing plan. First, we test all the individual components of our system, the back-end, front-end, and all the complementary components. The inputs for the unit tests consists of both normal and all abnormal cases that the components might encounter during execution. Secondly, we will test all the components together during integration testing and make sure all the features work correctly with both normal and abnormal inputs.

# Test Case Descriptions

FU1.1 **Front-end Unit Test 1**

FU1.2 Test front end Layout component functionality.

FU1.3 In this test, we ensure that the Layout component of the website follows the design.

FU1.4 Inputs: HTTP request to render the website.

FU1.5 Outputs: Rendered page.

FU1.6 Normal

FU1.7 Blackbox

FU1.8 Functional

FU1.9 Unit Test

FU2.1 **Front-end Unit Test 2**

FU2.2 Test front end Layout component performance.

FU2.3 In this test, we ensure that the Layout component of the website follows the design with changing windows sizes.

FU2.4 Inputs: HTTP request to render the website on different window sizes/devices.

FU2.5 Outputs: Rendered page.

FU2.6 Normal

FU2.7 Blackbox

FU2.8 Performance

FU2.9 Unit Test

FI1.1 **Front-end Integration Test 1**

FI1.2 Test layout of the Home page when user enter the page.

FI1.3 In this test, we ensure that the layout of the Home page follows the designs.

FI1.4 Inputs: HTTP request to render the Home page.

FI1.5 Outputs: Rendered Home page.

FI1.6 Normal

FI1.7 Blackbox

FI1.8 Functional

FI1.9 Integration Test

FI2.1 **Front-end Integration Test 2**

FI2.2 Test layout of the Categories page when user enter the page.

FI2.3 In this test, we ensure that the layout of the Categories page follows the designs.

FI2.4 Inputs: HTTP request to render the Categories page.

FI2.5 Outputs: Rendered Categories page.

FI2.6 Normal

FI2.7 Blackbox

FI2.8 Functional

FI2.9 Integration Test

FI3.1 **Front-end Integration Test 3**

FI3.2 Test layout of the Post page when user enter the page.

FI3.3 In this test, we ensure that the layout of the Post page follows the designs.

FI3.4 Inputs: HTTP request to render the Post page.

FI3.5 Outputs: Rendered Post page.

FI3.6 Normal

FI3.7 Blackbox

FI3.8 Functional

FI3.9 Integration Test

FI4.1 **Front-end Integration Test 4**

FI4.2 Test website routing between webpages.

FI4.3 In this test, we ensure that the link between pages work correctly and quickly.

FI4.4 Inputs: Clicking on links to navigate in the website.

FI4.5 Outputs: Rendered the pages being navigated to.

FI4.6 Normal

FI4.7 Blackbox

FI4.8 Functional

FI4.9 Integration Test

BU1.1 **Back-end Unit Test 1**

BU1.2 Test the query used to get information from the database.

BU1.3 In this test, we make sure that the database query is correct and returns the correct information.

BU1.4 Inputs: Database query.

BU1.5 Outputs: The information obtained from the database.

BU1.6 Normal

BU1.7 Blackbox

BU1.8 Functional

BU1.9 Unit Test

BU2.1 **Back-end Unit Test 2**

BU2.2 Test the API routes implemented in the back-end.

BU2.3 In this test, we make sure that the API routes being implemented returns the correct information.

BU2.4 Inputs: HTTP request to call the API route.

BU2.5 Outputs: The information returned from the API route.

BU2.6 Normal

BU2.7 Blackbox

BU2.8 Functional

BU2.9 Unit Test

ST1.1 **System Test 1**

ST1.2 Test the entire system for functionality.

ST1.3 In this test, we make sure that the front-end correctly calls the back-end API and renders the result.

ST1.4 Inputs: Load front-end page with back-end API request.

ST1.5 Outputs: The rendered page.

ST1.6 Normal

ST1.7 Blackbox

ST1.8 Functional

ST1.9 Integration Test

ST2.1 **System Test 2**

ST2.2 Test that the entire system still works after publishing the stack on the cloud.

ST2.3 In this test, we make sure that the website works correctly using the online cloud link.

ST2.4 Inputs: Online link from cloud provider.

ST2.5 Outputs: The website.

ST2.6 Normal

ST2.7 Blackbox

ST2.8 Functional

ST2.9 Integration Test

# Test Case Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | Normal/Ab. | Black/Whitebox | Func/Perf | Unit/Integr. |
| FU1 | Normal | Blackbox | Functional | Unit |
| FU2 | Normal | Blackbox | Performance | Unit |
| FI1 | Normal | Blackbox | Functional | Integration |
| FI2 | Normal | Blackbox | Functional | Integration |
| FI3 | Normal | Blackbox | Functional | Integration |
| FI4 | Normal | Blackbox | Functional | Integration |
| BU1 | Normal | Blackbox | Functional | Unit |
| BU2 | Normal | Blackbox | Functional | Unit |
| ST1 | Normal | Blackbox | Functional | Integration |
| ST2 | Normal | Blackbox | Functional | Integration |