

# Testing



Sofija Jancheska  
Mariam Elgamal  
Tina Krulec

Mentored by  
Professor Mai Oudah

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<b>1. Test Plan</b>	<b>3</b>
1.1 INTRODUCTION	3
1.2 OBJECTIVES AND TASKS	3
1.2.1 Objectives	3
1.2.2 Tasks	3
1.3 SCOPE	3
1.4 TESTING STRATEGY	4
1.4.1 Unit Testing	4
1.4.2 System and Integration Testing	4
1.4.3 Performance and Stress Testing	5
1.4.4 User Acceptance Testing	5
1.4.6 Automated Regression Testing	5
1.4.7 Beta Testing	6
1.5 CONTROL PROCEDURES	6
1.5.1 Problem Reporting	6
1.5.2 Change Requests	6
1.6 FEATURES TO BE TESTED	6
1.7 FEATURES NOT TO BE TESTED	6
1.8 RESOURCES/ROLES & RESPONSIBILITIES	6
1.9 SCHEDULES	7
1.9.1 Major Deliverables:	7
1.10 SIGNIFICANTLY IMPACTED DEPARTMENTS (SIDs)	7
1.11 DEPENDENCIES	7
1.12 RISKS/ASSUMPTIONS	7
1.13 TOOLS	7
1.14 APPROVALS	7
1.15 SOURCE & TEMPLATE USED for this Test Plan	8
<b>2. Test Cases</b>	<b>9</b>
2.1 Register Functionality	9
Test Case: STEMLab-TC001	9
Test Case STEMLab-TC002	11
Test Case STEMLab-TC003	12
Test Case STEMLab-TC004	13
Test Case STEMLab-TC005	14

Test Case STEMLab-TC006	15
Test Case STEMLab-TC007	16
Test Case STEMLab-TC0008	17
Test Case STEMLab-TC0009	18
2.2 Download Functionality	19
Test Case STEMLab-TC0010	19
Test Case STEMLab-TC0011	20
Test Case STEMLab-TC0012	21
Test Case STEMLab-TC0013	22
Test Case STEMLab-TC0014	23
2.3 Search Functionality	24
Test Case STEMLab-TC0015	24
Test Case STEMLab-TC0016	25
Test Case STEMLab-TC0017	26
Test Case STEMLab-TC0018	27
2.4 Upload Functionality	28
Test Case STEMLab-TC0019	28
Test Case STEMLab-TC0020	29
Test Case STEMLab-TC0021	30
Test Case STEMLab-TC0022	31
<b>3. Test Results</b>	<b>33</b>

# 1. Test Plan

## 1.1 INTRODUCTION

STEM Inclusivity Lab is an open-source, multilingual educational software aimed to facilitate the path of womxn towards the STEM fields by providing them a space containing beneficial materials. Our product enables people to search, download, upload and update materials relevant to STEM. They are also able to communicate with us through the feedback form and/or post comments on our forum.

## 1.2 OBJECTIVES AND TASKS

### 1.2.1 Objectives

The goal of this document is to help us clearly define the tasks and responsibilities which STEM Inclusivity Lab needs to satisfy. It also serves as a vehicle for communication between the customer and the development team and will be used as a service level agreement.

### 1.2.2 Tasks

The tasks identified by this Test Plan will cover testing, post-testing, and problem reporting.

## 1.3 SCOPE

**General:** We aim to test four (4) functionalities of our product (register, search, download and upload), the integration of these functions and the existing interfaces of the product.

**Tactics:** We plan on testing similar interfaces that have been already developed to get a better direction on how to properly develop our own idea. Key people, like professor Mai Oudah and TA Dana Ahmed, will be asked to give us feedback on our work and assist us in accomplishing our activity.

## 1.4 TESTING STRATEGY

Describe the overall approach to testing. For each major group of features or feature combinations, specify the approach which will ensure that these feature groups are adequately tested.

Specify the major activities, techniques, and tools which are used to test the designated groups of features.

The approach should be described with sufficient details to permit the identification of the major testing tasks and estimation of the time required to do each one.

### 1.4.1 Unit Testing

**Definition:** We would like to test individual parts (units) of our software. This unit test is a function where we will provide a short explanation on what we want to test (for instance, a class or a function), the data we need to provide for the test and the expected result. The unit test will be executed by a test-runner.

**Participants:** Sofija Jancheska, Mariam Elgamal, Tina Krulec.

**Methodology:** The process through which we can do this is straightforward - will firstly define the results that our code should produce for certain input values and later on check if they occur or not.

### 1.4.2 System and Integration Testing

**Definition:** After separately testing the individual parts (units), we would want to combine them and see how they perform together. Thus, we would need the integration testing first and follow up with the system testing where all the parts will be a one whole.

**Participants:** Sofija Jancheska, Mariam Elgamal, Tina Krulec.

**Methodology:** The test scripts for Unit Testing, what would be the sequence of events of System & Integration Testing, will be written by the participants of the developmental team. The testing activity will take place right after we are satisfied with the implementation of the unit functionalities.

### 1.4.3 Performance and Stress Testing

**Definition:** For our project, Stress Testing means downloading several documents at once, having multiple uploads at the same time and other tasks that put on a test the capability of our product to handle a mass of data and requests at the same time.

**Participants:** Sofija Jancheska, Mariam Elgamal, Tina Krulec.

**Methodology:** The test scripts for testing, what would be the sequence of events for Performance & Stress Testing, will be written by the developmental team. The testing activity will take place right after we have finished combining all the units wanted to be implemented in this iteration and testing the system as a whole.

### 1.4.4 User Acceptance Testing

**Definition:** The purpose of this acceptance test is to confirm that the system is ready to be released for usage. This testing involves the end-users (customers) of the system who will compare the system we have developed to the initial requirements they requested.

**Participants:** Sofija Jancheska, Mariam Elgamal, Tina Krulec.

**Methodology:** The user testing our product has to stick to the four (4) main questions:

1. Can they use the website?
2. Is it really what they have asked for?
3. Do they have any trouble using it? If yes, what are they?
4. Does the website behave exactly as they expected?

### 1.4.6 Automated Regression Testing

**Definition:** If time permits, we would like to do a selective retesting of a component of the system or on the system as a whole to check if certain modifications have caused any harm from the functionality aspect and that the system still works as the customer had specified it in the requirements.

### 1.4.7 Beta Testing

The beta testing will enable us as owners to perform a small scale test on the functionality and content of our website. Our test group will include the key stakeholders: the developmental team of Veritas Engineering, a sample of customers and a third party hired to specifically perform this process.

## 1.5 CONTROL PROCEDURES

### 1.5.1 Problem Reporting

In the next iteration of this project, we plan on including a document containing the procedures to be followed when an incident is encountered during the testing process. It will be attached as an "Appendix" to this document.

### 1.5.2 Change Requests

In the next iteration of this project, we will aim to document the process of modifications to the software. We will identify who initiates these changes and what would be the criteria for including the changes to the current product. If the changes would affect the existing product, then these modules need to be identified.

## 1.6 FEATURES TO BE TESTED

The features to be tested include Search, Download and Update.

## 1.7 FEATURES NOT TO BE TESTED

Due to time constraints, the most fundamental features will be implemented only. Thus, the features that will not be tested are Update, Register, Login and Post on Forum.

## 1.8 RESOURCES/ROLES & RESPONSIBILITIES

The group responsible for managing, designing, preparing, executing, and resolving the test activities as well as related issues consists of Sofija Jancheska, Mariam Elgamal and

Tina Krulec. They will also be responsible for providing the test environment. They are the team acting as the developers, testers, operations staff and testing services staff.

## **1.9 SCHEDULES**

### **1.9.1 Major Deliverables:**

- Test Plan
- Test Cases
- Test Summary Report

## **1.10 SIGNIFICANTLY IMPACTED DEPARTMENTS (SIDs)**

Management Department and testers within the Developmental Department.

## **1.11 DEPENDENCIES**

Certain constraints, such as test-item availability, testing-resource availability, and deadlines might impact the testing process.

## **1.12 RISKS/ASSUMPTIONS**

A high-risk assumption of this test plan includes the delay in delivery of test items which might require increased night shift scheduling to meet the delivery date.

## **1.13 TOOLS**

If time permits, we plan on using automation tools like Selenium and the Bug tracking tool Debugme. Otherwise, they will be used in the next iteration of the project.

## **1.14 APPROVALS**

Below, we have specified the names and titles of all the persons who must approve this plan.



1. Professor Mai Oudah
2. TA Dana Ahmed

## **1.15 SOURCE & TEMPLATE USED for this Test Plan**

<https://www.softwaretestinghelp.com/test-plan-sample-softwaretesting-and-quality-assurance-templates/>

## 2. Test Cases

### 2.1 Register Functionality

Test Case: STEMLab-TC001

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC001

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** User Interface

**Test Execution date:** 05/12/2020

**Description:** Checking the text boxes, buttons and dropdown menus.

**Objective:** Ensuring the UI is functioning properly.

**Pre-conditions:** Be a guest or a user of the system.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the text boxes	N/A	Test boxes are functional	open designated part of the website	Pass	
2	Click on the buttons	N/A	Buttons are functional	buttons direct to designated webpage	Pass	Get Started button is functional
3	Click on the dropdown menus	N/A	Dropdown menus are functional	dropdown menus open	Pass	all drop-down menus are connected to home page in the implementation for this current implementation iteration

**Post-conditions:** N/A

## Test Case STEMLab-TC002

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC002

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Required fields

**Test Execution date:** 05/12/2020

**Description:** Check the functionality of the required fields by not filling in any data.

**Objective:** Ensuring the required fields are functioning correctly and reacting if no data is entered.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Do not enter any value in the field	N/A	N/A	TBD	TBD	TBD
2	Click on the Register button	N/A	The red symbol * should be shown on the mandatory fields	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC003

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC003

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Required fields

**Test Execution date:** 05/12/2020

**Description:** Checking if a member can register as a user by filling in all the required fields.

**Objective:** Ensuring the membership form is functioning correctly.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid values in the required fields	Enter name, institution name, email address	N/A	TBD	TBD	TBD
2	Click the Register button	N/A	1. Member should be registered as a user 2. A successful registration message should show. 3. Email should be send to the user	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC004

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC004

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Email Validation

**Test Execution date:** 05/12/2020

**Description:** Checking the Email text field functionality by entering an Email address without @ symbol, a random string instead of a real email and not having a dot in the email address.

**Objective:** Ensuring the email the member provided is a valid one so that the registration process can proceed further.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter invalid Emails	testyahoo test@yahoolcom test@yahoo @yahoo	Inlavild email should not be accepted right away	TBD	TBD	TBD
2	Click on the Register Button	N/A	An error message for invalid Email should be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC005

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC005

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Email Validation

**Test Execution date:** 05/12/2020

**Description:** Checking valid emails.

**Objective:** Ensuring the email the member provided is valid so that the registration process can proceed.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid Emails	test.111@gmail.com test@gmail.com	Valid Emails are accepted in the field box	TBD	TBD	TBD
2	Click on the Register Button	N/A	An error message should not be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC006

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC006

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Password Validation

**Test Execution date:** 05/12/2020

**Description:** Checking the functionality of the password limit when entering a value less than the minimum (5).

**Objective:** Ensuring the desired password of the member is valid so that the registration can proceed.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter an alphanumeric value which is less than 7	Password	A password is entered	TBD	TBD	TBD
2	Click on the Register Button	N/A	An error message for invalid password should be displayed	TBD	TBD	TBD

**Post-conditions:** N/A



## Test Case STEMLab-TC007

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC007

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Password Validation

**Test Execution date:** 05/12/2020

**Description:** Checking the password limit is functioning properly when the member enters a value greater than maximum (20).

**Objective:** Ensuring the desired password of the member is valid so that the registration can proceed.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter alphanumeric value which is more than 20	Any random string with numbers	Any random string with numbers is entered	TBD	TBD	TBD
2	Click on the Register Button	N/A	An error message for invalid password should be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC0008

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0008

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Password Validation

**Test Execution date:** 05/12/2020

**Description:** Checking the password functionality when passing only numbers.

**Objective:** Ensuring the password functionality is valid so that the registration can proceed.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter any sequence of numbers between 5-20	87654321	87654321 is entered	TBD	TBD	TBD
2	Click on the Register Button	N/A	An error message for invalid password should be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC0009

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0009

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Registration Page

**Test Executed by:** Mariam

**Test Title:** Password Validation

**Test Execution date:** 05/12/2020

**Description:** Checking the password functionality is working properly when valid data is passed.

**Objective:** Ensuring the password functionality is valid so that the registration can proceed.

**Pre-conditions:** Be a guest in the system who wants to register as a user.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter an alphanumeric value of a length between 8-32	Pass654321	An alphanumeric value of a length between 8-32 is entered	TBD	TBD	TBD
2	Click on the Register Button	N/A	An error message should not be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## 2.2 Download Functionality

### Test Case STEMLab-TC0010

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0010

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Projects Page

**Test Executed by:** Mariam

**Test Title:** Download Button Validation

**Test Execution date:** 05/12/2020

**Description:** Checking if the Download button clickable or not.

**Objective:** Ensuring the Download functionality is working properly.

**Pre-conditions:** Be a guest or a user of the system who shows their interest to download a file by clicking on the Download button.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Download button	N/A	The downloading process should be triggered	File is downloaded	Pass	Programming Projects webpage

**Post-conditions:** N/A

## Test Case STEMLab-TC0011

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0011

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Projects Page

**Test Executed by:** Mariam

**Test Title:** Download File Name Verification

**Test Execution date:** 05/12/2020

**Description:** Checking if the name of the downloaded file is the same as the name of the file that was selected to be downloaded.

**Objective:** Verifying if the file which had been selected for download is the same as what has actually been downloaded.

**Pre-conditions:** Be a guest or a user in the system who wants to download a file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Download button	N/A	File starts being downloaded	File is downloaded	Pass	Double click to download
2	Compare the previously selected file with what has been downloaded	Downloaded file name	The files' names match, i.e it is the same file	File names match	Pass	None

**Post-conditions:** N/A

## Test Case STEMLab-TC0012

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0012

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Projects Page

**Test Executed by:** Mariam

**Test Title:** Pause Download

**Test Execution date:** 05/12/2020

**Description:** Checking if one can pause the download process.

**Objective:** Verifying that the pause method within the download functionality is working properly.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Download button	N/A	File starts downloading	file starts downloading	Pass	double click to download
2	Pause the download process	N/A	The download process should be paused	Download paused	Pass	File must be big enough to still be downloading when attempting to pause

**Post-conditions:** N/A

## Test Case STEMLab-TC0013

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0013

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Projects Page

**Test Executed by:** Mariam

**Test Title:** Resume Download

**Test Execution date:** 05/12/2020

**Description:** Checking if one can resume the download process.

**Objective:** Verifying that the resume method within the download functionality is working properly.

**Pre-conditions:** Be a guest or a user in the system who wants to resume the download process of a file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Download button	N/A	File starts downloading	file starts downloading	Pass	double click to download
2	Click on the Pause button	N/A	The download process should be paused	Download paused	Pass	File must be big enough to still be downloading when attempting to pause
3	Click on Resume button	N/A	The download process should be resumed	Download Resumed	Pass	File can be resumed by clicking on the paused file and clicking resume in the drop down menu

**Post-conditions:** N/A

## Test Case STEMLab-TC0014

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0014

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Projects Page

**Test Executed by:** Mariam

**Test Title:** Download File Name Verification

**Test Execution date:** 05/12/2020

**Description:** Checking if one can cancel or stop the downloading process.

**Objective:** Verifying the download functionality when one cancels or stops the downloading process.

**Pre-conditions:** Be a guest or a user in the system who wants to download a file and then changes their mind by cancelling the download process.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Note
1	Click on the Download button	N/A	The file should begin to be downloaded	File begin download	Pass	None
2	Click on the Cancel button	N/A	The downloading process should be canceled	The file download process cancels	Pass	None

**Post-conditions:** N/A



## 2.3 Search Functionality

### Test Case STEMLab-TC0015

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0015

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Main Page

**Test Executed by:** Mariam

**Test Title:** Search Dropdown Menus

**Test Execution date:** 05/12/2020

**Description:** Checking if the buttons for the dropdown menu of the Search functionality work properly.

**Objective:** Verifying the work of the dropdown menus of the search functionality.

**Pre-conditions:** Be a guest or a user in the system who wants to search a file through the dropdown menu provided.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Select the Search field	N/A	The Search field should be displayed	The Search field is displayed	Pass	None
2	Click on all dropdown menus (one at a time)	N/A	The results from the proper category should be displayed	The results from the proper category are displayed	Pass	all dropdown menus are connected to the homepage

**Post-conditions:** N/A

## Test Case STEMLab-TC0016

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0016

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** Medium

**Test Designed date:** 27/11/2020

**Module Name:** Main Page

**Test Executed by:** Mariam

**Test Title:** Search Dropdown Menus

**Test Execution date:** 05/12/2020

**Description:** Checking the functionality of the Search box without entering anything in the search box and clicking on the Search button.

**Objective:** Verifying the functionality of the Search box.

**Pre-conditions:** Be a guest or a user in the system who wants to search a file by providing a string in the Search text box.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Note
	Select the Search field	N/A	The Search field should be opened	The Search field is opened	Pass	N/A
2	Do not enter anything in the Search box	N/A	N/A	N/A	N/A	N/A
3	Click Search or Press Enter	N/A	An error message should be shown	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC0017

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0017

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** Medium

**Test Designed date:** 27/11/2020

**Module Name:** Main Page

**Test Executed by:** Mariam

**Test Title:** Search File Relevancy

**Test Execution date:** 05/12/2020

**Description:** Checking if the search results displayed are relevant to the search keyword(s) one used.

**Objective:** Verifying the search functionality produces relevant results.

**Pre-conditions:** Be a guest or a user in the system who wants to search a file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Note
1	Select the Search field	N/A	The Search field opens	TBD	TBD	TBD
2	Enter a proper string	conference 2018	All files containing the string should be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## Test Case STEMLab-TC0018

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0018

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Main Page

**Test Executed by:** Mariam

**Test Title:** Max Search File String

**Test Execution date:** 05/12/2020

**Description:** Enter a string more than the maximum character limit of the search field.

**Objective:** Verify that the limit for the search string is working properly.

**Pre-conditions:** Be a guest or a user in the system who wants to search a file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Note
1	Click on the Search button	N/A	The search box opens	TBD	TBD	TBD
2	Enter a string of a value greater than 30	A string of a value greater than 30	An error message should be displayed	TBD	TBD	TBD

**Post-conditions:** N/A

## 2.4 Upload Functionality

### Test Case STEMLab-TC0019

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0019

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Programming Page

**Test Executed by:** Mariam

**Test Title:** Upload Button Verification

**Test Execution date:** 05/12/2020

**Description:** Checking if the upload button works properly.

**Objective:** Verifying that the upload button is functioning properly.

**Pre-conditions:** Be a guest or a user in the system who wants to upload a file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Upload button	N/A	The selection box "Open" should open on your machine	prompted to upload file from device	Pass	Programming Projects Page

**Post-conditions:** N/A

## Test Case STEMLab-TC0020

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0020

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Programming Page

**Test Executed by:** Mariam

**Test Title:** File Type Validity

**Test Execution date:** 05/12/2020

**Description:** Checking if the file being uploaded is valid.

**Objective:** Verify that a valid File type is being uploaded.

**Pre-conditions:** Be a guest or a user in the system who wants to upload a valid type of file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Upload button	N/A	One is prompted to upload file from their machine	prompted to upload file from machine	Pass	None
2	Select a valid document type (pdf, doc, mov)	N/A	The file should be uploaded in the database. A success message should be displayed.	file uploaded to database and shows on webpage	Pass	A success message is missing

**Post-conditions:** N/A

## Test Case STEMLab-TC0021

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0021

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** High

**Test Designed date:** 27/11/2020

**Module Name:** Programming Page

**Test Executed by:** Mariam

**Test Title:** Block Empty File

**Test Execution date:** 05/12/2020

**Description:** Checking if an empty file gets uploaded or not.

**Objective:** Verify "0 KB" file or empty file attempted to be uploaded is Blocked.

**Pre-conditions:** Be an administrator uploading an approved file to the website.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Upload button	N/A	One should be prompted to upload file from their machine	prompted to upload file from machine	Pass	None
2	Select an empty file	An empty file	File should be uploaded to database and to show on webpage	file uploaded to database and shows on webpage	Pass	None
3	Click on the Upload button	N/A	An error message should be displayed. The file is not uploaded.	File is uploaded	Fail	This should not be a major issue since all uploads have to be authorized by the admin in later iterations of the website

**Post-conditions:** N/A

## Test Case STEMLab-TC0022

**Project Name:** STEM Inclusivity Lab

**Test Case ID:** STEMLab-TC0022

**Test Designed by:** Sofija

**Test Priority (Low/Medium/High):** Medium

**Test Designed date:** 27/11/2020

**Module Name:** Programming Page

**Test Executed by:** Mariam

**Test Title:** Delete Upload

**Test Execution date:** 05/12/2020

**Description:** Deleting an uploaded file.

**Objective:** Verify that an uploaded file can be deleted by the administrator.

**Pre-conditions:** Be the administrator in the system who wants to delete an uploaded file.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the Upload button	N/A	One should be prompted to upload file from their machine	prompted to upload approved file from machine	Pass	None
2	Select a valid file type (pdf, doc, mov)	A valid file type	File is selected	File is selected	Pass	None
3	Click Delete	.	1 The file should be deleted from the database 2. Deleted file should be reflected in the programming projects webpage	file deleted from database and no longer appeared on the programming project webpage	Pass	None

**Post-conditions:** N/A



Blank Page

### 3. Test Results

*Submit a Test Results document summarizing the encountered bugs, which test cases uncovered these bugs, root causes of each and how they were resolved.*

All the current test cases above have been adjusted to reflect the situation after all the bugs have been resolved. Find some bugs below that we have successfully resolved.

#### General Impressions on the testing.

- ❖ Since we used a ready-made template for our website, we did not have many bugs to deal with. Some of what we faced is listed below.
- ❖ The website did not update instantly after pushing the changes to the repository, which made testing harder as we were unsure which changes was the definitive cause for the fixed bug.
- ❖ We were only able to implement upload and download for the *Programming* project, which prevented us from testing *search by category* functionality fully.
- ❖ For upload and download we were only able to implement a very rudimentary version of it without the success or failure messages yet, hence, we cannot fully consider that a bug, although it is lacking in the current version.

#### Logo does not work with all screen sizes.

- Test Case: STEMLab-TC001
- Root Cause: We believe that it is caused by wrong formatting. We currently only have one size logo attached to the HTML code, whereas with all the other graphics we have different sizes to accommodate for the different screens. We believe that is the root cause of this issue.
- Resolved: We were not able to resolve this bug, but are working on it. This should only be a matter of uploading more graphics to our repository and reformatting our code to support the transition between different sizes.

#### Document not visible when uploaded

- Test Case: STEMLab-TC0019
- Root Cause: We were missing a few lines of code creating and updating the list of available documents.

- Resolved: Yes, this has been resolved. We looked through examples of implementations of Firebase and realized we had to additionally update our list of available documents. The snippets of code are attached below.

```
});  
var ul = document.getElementById("documents");  
ul.innerHTML = "";  
for (let i of documents){  
  var li = document.createElement("li");
```

```
fileReader.onload = function (fileLoadedEvent) {  
  ref.putString(fileLoadedEvent.target.result, 'data_url').then(function(snapshot) {  
    console.log('Uploaded a data_url string!');  
    list()  
  });  
};  
fileReader.readAsDataURL(fil);
```

### Empty File Uploaded

- Test Case: STEMLab-TC0021
- Root Cause: We are unsure as to why empty files are getting uploaded. We are still in the process of finding what the cause is.
- Resolved: We anticipate this to get resolved once we implement admin oversight on the website. Currently administrator can delete files directly from the database, but we're hoping to have this support on the website itself.