Unit Testing(Browse Function)

Type of test: Performance Test
Test Objective: The objective of this test is to determine the functionality of the browse function and if it is communicating with the metadata correctly to display the right projects within the right categories.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed in February.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the browse function correctly displays the right projects in the right categories based on the metadata entered for the specific project.
Procedure: The procedure will be administered in the format of writing down the specific categories the specific project should be listed under. The group will then use the browse page and check the written-down categories for the specific project.

Unit Testing(Filter Function)

Type of test: Performance Test
Test Objective: The objective of this test is to determine the functionality of the filter function and if it is communicating with the metadata correctly to display the right projects within the right categories.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed in March.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the filter function correctly displays the right projects in the right categories based on the metadata entered for the specific project.
Procedure: The procedure will be administered in the format of writing down the specific categories the specific project should be listed under. The group will then use the filter function to alter the browse page to show only aspects pertaining to that project to be displayed and check the written-down categories for the specific project.

Unit Testing(Search Function)

Type of test: Performance Test
Test Objective: The objective of this test is to determine the functionality of the Search function and if it is communicating with the metadata correctly to display the right projects within the right categories.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.

Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed in March.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the Search function correctly displays the right projects in the right categories based on the metadata entered for the specific project. The results page should appear with projects pertaining to only the specific phrase or words. The search function should also predict the phrase the user is trying to search for.
Procedure: The procedure will be performed by searching for projects using specific phrases or words. The group will then make sure that each of the projects showing within the phrase or word the user is trying to search for. If the page displays any projects not pertaining to the phrase, then the function needs to be reworked.

Unit Testing(Upload Function)

Type of test: Performance Test
Test Objective: The objective of this test is to determine the functionality of the Upload function and if it is communicating with the metadata correctly to display the right projects within the right categories.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed at the beginning of April.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the Upload function most correctly collects data from the pdf file upload and fills out the metadata fields below the upload button but also allows the user to manually override them if they see anything that is not filled out correctly.
Procedure: The procedure will be performed by the tester going to the upload page and uploading a pdf project to the database. The user will then check if the upload is a success by the interface indicating that the upload was complete. The user will then check the metadata filled out by the interface is mostly correct. The interface will most likely not be able to analyze the exact description of the project by the analysis but will be very close. The user will then fill in any necessary data for the project and hit submit. The final check will be to go into the database and confirm the metadata has been entered and registered by the interface.

Unit Testing(Viewer Function)

Type of test: Performance Test
Test Objective: The objective of this test is to determine the functionality of the PDF Viewer function and if it displays the project correctly. It also is to check is the accessibility features work, such as keyboard functionality.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.

Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed in February.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the PDF Viewer function most correctly displays the project for the user to read and displays similar projects at the end of the page. It also needs to adhere to the accessibility of users by allowing keyboard functionality.
Procedure: The procedure will be performed by the tester clicking on a project to view. The user will test to see if the PDF viewer displays the project correctly and allows for the user to zoom in and flip through the pages. The user will then test the keyboard functionality and see if they are able to flip between the pages by using the arrow keys on the keyboard. The user will then look to the bottom of the screen to see if there are similar projects to also view with a small little summary for the user to get a feel for if they want to read that project or not depending on the purpose of their library use.

Unit Testing(Login Function)

Type of test: Performance Test
Test Objective: The objective of this test is to determine the functionality of the Login and Account function and if it is communicating with the database to enable the user access only if they have an account for the library and can create an account if they have permission to do so.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed at the beginning of April.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the Login and Create account function allows the user access to the library if they have an account and can create an account if they have permission to do so.
Procedure: The procedure will be performed by the tester going to the login page and trying to create an account. Then this can be checked if it was applied correctly by checking the database and seeing if their login credentials are there. The user will then see if they are able to access the library by logging into the account created.

Stress Test

Type of test: Endurance Test
Test Objective: The objective of this test is to determine the capability and endurance of the web interface when it is put under a lot of loads and has multiple users sending requests at once to view projects within the interface. It will allow us to test the speed and functionality of the API.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.

Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will be performed at the beginning of April.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance. We might also use bots to test the endurance of the web interface as well.
Criteria For Success: The criteria for success is that the interface is able to process each task and allows the users to use the interface simultaneously without a drop in performance or functionality.
Procedure: The procedure will be performed by the testers performing multiple tasks at once. The interface will try and process each task that is being thrown its way and this will determine its load capability.

User Trial Test

Type of test: Human Acceptance Test
Test Objective: The objective of this test is to determine the user experience and determine if there are any improvements to be made or accessibility needs that need to be met before the interface is ready for public use.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Will begin at the end of January.
Personnel: The personnel to test the interface will be students and faculty using the library.
Criteria For Success: The criteria for success is that the interface provides a smooth and easily navigable experience for the user while trying to retrieve data from the projects they are looking for. The interface also needs to adhere to the user's needs as it meets their accessibility needs.
Procedure: The procedure will be performed by the tester, who has been given an interactive prototype of the interface to interact with. The user will use the interface in whichever means they want and write down any concerns or remarks they have while using the interface. This can be based on the function they are testing or just the design layout of each page. Then the information gathered from this test will be used to determine improvements that need to be made.

Accessibility Test

Type of test: Performance Test
Test Objective: The objective of this test is to determine the accessibility score of the web interface.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Recurring dates throughout the design process from January to April.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.

Criteria For Success: The criteria for success is that the web interface receives a high accessibility score and is determined to be adaptable to the user needs.
Procedure: The procedure will be administered by the team using the Lighthouse accessibility score tool implemented through google chrome. This will determine the score of the web interface.

Responsiveness Test

Type of test: Performance Test
Test Objective: The objective of this test is to determine the responsiveness of the web interface.
Equipment Needed: The equipment needed is a server(docker) setup and other devices to test the responsive design of the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Recurring dates throughout the design process from January to April.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the web interface is able to be displayed on multiple devices without losing functionality or design format.
Procedure: The procedure will be administered by the team setting up multiple devices to load the interface. The team will then try to use the web interface and check for complete design and functionality of each page.

Compatibility Test

Type of test: Performance Test
Test Objective: The objective of this test is to determine the web browser compatibility.
Equipment Needed: The equipment needed is a server(docker) setup and a computer to test the web interface.
Location: Mercer University Technical Communication Room
Date(s)/Total Time: Recurring dates throughout the design process from January to April.
Personnel: The personnel to test the interface will be Kaleb Kushinka, Martin Ramos, and Dr. Bremen Vance.
Criteria For Success: The criteria for success is that the interface is able to be displayed correctly and still has full functionality.
Procedure: The procedure will be administered by the team loading the interface on multiple browsers and testing the design and functionality.