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Greenwell Project
Software Test Plan
Version 2.0
04/26/2023

Greenwell QA

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Revision History

Date	Version	Description	Author(s)
10/24/2022	1.0	First Draft	Aaron Guethlein, Caleb Jenkins
04/26/2023	2.0	Most recent Version	Caleb Jenkins, Kylie Hall, Yaro Kulchyckyj, Matthew Grimelli

1. Introduction

1.1 Purpose

The purpose of this document is to provide tests for the development of the Greenwell file share website. This document will formally state the procedures to be used for testing the software product and identify specific test cases. It will provide all testing processes, approaches, environments, and procedures that will be performed for each requirement to be tested.

1.2 Scope

The scope of this document is to thoroughly list the tests from the points of view of a non-user, standard user, and admin users. There will also be tests with multiple users, multiple user actions simultaneously on the same page, and multiple log-ins from the same account.

1.3 Definitions, Acronyms, and Abbreviations

SRS	Software Requirement Specification
SDD	Software Design Description

1.4 Document References

This section is not currently applicable.

1.5 System Overview

This system will be an internet hosted database used by board members and trustees of the Greenwell Foundation. The intended use of this database is to replace their current content distribution and organization system with a centralized, proprietary solution. To accomplish this, the website must facilitate the uploading and downloading of documents, videos and photos. The website must also have an intuitive method of version control and segmenting of different types of content.

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2. Requirements to Be Tested

The purpose of this Traceability Matrix is to clearly state the relationship between requirements from the SRS, in terms of the database filemanager, and design artifacts from the SDD through cross-references for the purpose of allowing access to how an activity relates to a requirement at any point in development and to ensure that no requirements have failed to be represented in the design process. The Traceability Matrix also ensures there are no design aspects that do not satisfy a requirement. It contains a list with every requirement numbered, another list with

every aspect numbered, and a traceability table with the list of requirements crossed with the list of aspects. In this table, boxes are marked with an 'X' where an aspect meets a requirement.

2.1 Requirements List

Requirement Number	SRS Section Number	SRS Section Title
R1	2.1.1	ADA Compliant
R2	2.2.1	Login Page
R3	2.2.2	Startup to Login
R4	2.2.3	Registering Users
R5	2.2.4	Form Requirements
R6	2.2.5	Username/Email for Login
R7	2.2.6	Password for Login
R8	2.2.7	Incorrect Login
R9	2.2.8	Login Page Redirect
R10	2.3.1	Main Screen Readability
R11	2.3.2	Main Screen Tabs/Links
R12	2.3.3	Return to Main Screen
R13	2.3.4	Logout Option
R14	2.3.5	Logout Tab
R15	2.3.6	Buttons
R16	2.3.7	Entering Text
R17	2.3.8	Logo
R18	2.4.1	Files
R19	2.4.2	File/Folder Filter
R20	2.4.3	Folders
R21	2.4.4	Version Control
R22	2.4.5	Picture Storage

Requirement Number	SRS Section Number	SRS Section Title
R23	2.4.6	Video Storage
R24	2.4.7	Working and Programs Folder
R25	2.5.1	Access to Important Data
R26	2.5.2	Adding Files
R27	2.5.3	Removing Files
R28	2.5.4	Admin Permissions
R29	2.5.5	Restricted Access
R30	2.6.1	Allowing only Employees to the Page
R31	2.6.2	Employee Login Page
R32	2.6.3	Two-Factor Authentication

2.2 Aspects List

Aspect Number	Aspect (Subsystem) Description
A1	Font Size: 20 Pixels
A2	Font Style: Arial, San Serif, Calibri
A3	Spacing Compliance
A4	Emphasis Compliance
A5	Color Guidelines
A6	Display Username/Password Input
A7	Accept Username/Email Input
A8	Accept Password Input
A9	Allow Administrator Permissions
A10	Allow Foundation Member Permissions
A11	Allow Pending User Permissions

A12	Display Non-User Permissions
A13	Display Page Directory Commands
A14	Allow Page Directory Commands
A15	Display Filter Option for Files
A16	Allows Filter input for File Sorting
A17	Allow Removal of Files
A18	Allow download of Files
A19	Display Main Screen Tabs
A20	Display Main Screen Folders
A21	Allow Access to Open Main Screen Folders
A22	Display Two Factor Authentication
A23	Allow Two Factor Authentication Input
A24	Allow Reset of Password
A25	Display Registration Form to Create Account
A26	Accept Registration Form Input
A27	Allow Logout Input Through One-Click Button
A28	Display Logo
A29	Allow Upload of Files

2.3 Traceability Table

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29
R1	X	X	X	X	X																								
R2						X																							

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29
R3												X	X	X															
R4						X	X	X			X		X	X											X	X			
R5						X	X	X																	X	X			
R6						X	X																						
R7								X																					
R8												X												X					
R9														X															
R10	X	X	X	X	X																								
R11													X	X															
R12													X	X					X										
R13						X							X	X													X		
R14						X													X								X		
R15	X	X	X	X	X																								
R16	X	X	X	X	X																								
R17																												X	

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29
R18																	X	X											
R19															X	X					X								
R20																				X	X								
R21																	X	X		X	X								
R22																				X	X								
R23																	X	X		X	X								
R24																				X									
R25									X																				
R26									X	X							X												X
R27									X								X												
R28									X																				
R29									X	X	X	X																	
R30									X	X	X	X																	
R31						X	X	X					X	X															
R32																						X	X						

3. Testing Approach

3.1 White Box Testing

White box testing is largely concerned with the logic and internal functions of the software. It will largely be important for the boundaries and limitations of the software, such as character limits for user name lengths. Our white box testing will be most commonly used in relation to less strictly guided user input, such as input through text boxes.

3.2 Black Box Testing

Black box testing, as it is what is mainly concerned with what is visible (the output), will be what is most important to our customer. The Greenwell File Share system is a file sharing system in which files are the content; as a result, it will be our first priority in testing.

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4. Test Process

4.1 Unit Testing

Unit testing will occur intermittently as new, independently functional aspects of the software become complete. The importance of unit testing is assuring that these aspects work alone, and without consideration for other factors, so the testing will occur on a few various systems, such as team members' personal computers.

4.2 Integration Testing

Integration testing occurs towards the end of most other tests. Once features are proven to work individually, they will be combined into larger, more expansive tests to assure the correct operation of the file share system in a more realistic fashion. Integration tests have been included as a part of our test procedures, and will be completely both implicitly and explicitly, as the software will contain plenty of separate frames which the user will navigate between (i.e. from a log-in screen to the main file share page, etc.).

4.3 Validation Testing

Validation testing will be concerned with ensuring that the software meets the requirements requested by the user. As such, a test should exist for each requirement.

4.4 System Testing

When the software is at the point where it is ready for system testing, it should be near completion. There should be a few preliminary tests while the software is early in development, alongside the unit tests, to ensure that the program's functionality will not be disrupted by the final version it will appear on. This system will be a file share system.

5. Reporting and Corrective Action

The team members, if they find nonmajor issues with the program, may directly notify each other member in Discord Greenwell team group chat. This group chat is a dynamic, mobile based platform, and may be directly accessed over online platforms. For more serious issues, the team should relay information directly to their team and project leads.

6. Test Environment

6.1 Unit Testing Environment

The unit testing will be performed on both the development website and wordpress to maximize efficiency of testing the website.

6.2 Integration Testing Environment

The integration tests will be performed on the coding hardware in the IDE software to maximize the efficiency of creating and implementing stubs and drivers. Tests of high abstraction (defined by complete usability by an outside tester) will be tested outside of the IDE by non-developers.

6.3 Validation Testing Environment

Most necessary for validation testing is the team's copy of the System Requirements Specification document to ensure all aspects of the software match the requirements. A deficiency list will need to be created to map where the software strays from specifications.

6.4 System Testing Environment

System testing will be completed in the Greenwell teams' meeting location: Schaefer 132.

Caleb Jenkins: Windows 10, AMD Ryzen 9 5900HS with Radeon Graphics 3.30 GHz, RTX 3060H 6 GB, 16.00 GB Ram.

Kylie Hall: MacBook Pro (2019),Intel UHD Graphics 630 1536 MB, 6-Core Intel Core i7 2.6 GHz, 16.00 GB RAM

7. Test Procedures

7.1 Requirements to be tested

SRS Requirement Section	SRS Requirement Title	Test Status	Test Number(s)
2.1.1	ADA Compliant	PASS	N/A
2.2.1	Login Page	PASS	PU-001, PAU-001
2.2.2	Startup to Login	PASS	PU-001, PAU-001
2.2.3	Registering Users	PASS	PU-002, PU-008, PAU-010
2.2.4	Form Requirements	PASS	PU-002
2.2.5	Username/Email for Login	PASS	PU-001, PNU-001
2.2.6	Password for Login	PASS	PU-001, PNU-001
2.2.7	Incorrect Login	PASS	PU-009
2.2.8	Login Page Redirect	PASS	PNU-002
2.3.1	Main Screen Readability	PASS	N/A
2.3.2	Main Screen Tabs/Links	PASS	PU-011
2.3.3	Return to Main Screen	PASS	PU-010
2.3.4	Logout Option	PASS	PU-006
2.3.5	Logout Tab	PASS	PU-006
2.3.6	Buttons	PASS	PU-012
2.3.7	Entering Text	PASS	PU-014
2.3.8	Logo	PASS	PU-016

SRS Requirement Section	SRS Requirement Title	Test Status	Test Number(s)
2.4.1	Files	PASS	PU-004
2.4.2	File/Folder Filter	PASS	PAU-004
2.4.3	Folders	PASS	PAU-005
2.4.4	Version Control	PASS	PU-015
2.4.5	Picture Storage	PASS	PU-007
2.4.6	Video Storage	PASS	PAU-009
2.4.7	Working and Programs Folder	PASS	PU-013
2.5.1	Access to Important Data	PASS	PAU-011
2.5.2	Adding Files	PASS	PU-004
2.5.3	Removing Files	PASS	PAU-006, PU-017
2.5.4	Admin Permissions	PASS	PAU-007
2.5.5	Restricted Access	PASS	PAU-008
2.6.1	Allowing only Employees to the Page	PASS	PNU-001
2.6.2	Employee Login Page	PASS	PU-001
2.6.4	Creating Events on Calendar	PASS	PAU-12
2.6.5	Delete Event on Calendar	PASS	PAU-13

7.2 POV of User

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Test Number: PU-001 PASS
Author: Aaron Guethlein
Date: 10/31/22
Revision: 1.0
Test Purpose: Ensure the User can log-in to file share
Test Procedures:
1. Navigate on the home page to log-in page
2. Input a working access code

Measure of Success: A successful log-in and the ability to see the file share system.

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Test Number: PU-002 PASS

Author: Aaron Guethlein

Date: 10/31/22

Revision: 1.0

Test Purpose: Reset code

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a non-working access code
3. Fill out a form to be sent to the admin

Measure of Success: A successful test is when a message is sent to the admin.

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Test Number: PU-003 PASS

Author: Caleb Jenkins

Date: 11/14/22

Revision: 1.0

Test Purpose: Return to main screen

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Click on Greenwell logo to return to main site

Measure of Success: A successful test is when the user returns to the main page.

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Test Number: PU-004 PASS

Author: Aaron Guethlein

Date: 11/14/22

Revision: 1.0

Test Purpose: Ensure the User can upload to file share

Test Procedures:

1. Navigate on the home page to log-in page
2. Input a working access code
3. Navigate to "upload file" folder
4. Upload a file of 10 mb or less

Measure of Success: A success is if the admin is able to see the upload file.

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Test Number: PU-005 PASS

Author: Aaron Guethlein

Date: 11/14/22

Revision: 1.0

Test Purpose: Ensure the User can download from file share

Test Procedures:

1. Navigate on the home page to log-in page
2. Input a working access code
3. Navigate to "Photos" folder
4. Download the first photo in the folder

Measure of Success: A success is if the user is able to download the file.

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Test Number: PU-006 PASS

Author: Caleb Jenkins

Date: 11/14/22

Revision: 1.0

Test Purpose: Ensure the user can log out of the file-share

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Click logout button

Measure of Success: A successful test is when the user returns to the main page.

<>...<>

Test Number: PU-007 PASS

Author: Aaron Guethlein

Date: 11/14/22

Revision: 1.0

Test Purpose: Ensure pictures can be seen before downloading

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Click logout button
4. Navigate to "Photos" folder

5. Click on the first photo in the "Photo" folder

Measure of Success: A successful test is when a window showing the photo before being downloaded is seen.

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Test Number: PU-008 PASS
Author: Caleb Jenkins
Date: 11/14/22
Revision: 1.0
Test Purpose: Register a New User
Test Procedures:
1. Navigate from the home page to log-in page
2. Click "Registration"
3. Fill form
4. Click "Register"
5. Inform Admin to change user role

Measure of Success: A successful test is when a new user account is created

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Test Number: PU-009 PASS
Author: Matthew Grimelli
Date: 4/3/2023
Revision: 2.0
Test Purpose: Ensure User can recover password
Test Procedures:
1. Navigate to log-in page
2. Click "Lost your password?"
3. Enter Username/ Email
4. Click "Get new Password"
5. Follow email directions
6. Login with new password

Measure of Success: User can reset password and login with it.

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Test Number: PU-010
Author: Matthew Grimelli
Date: 4/17/2023
Revision: 2.0
Test Purpose: Ensure User can navigate back to main screen
Test Procedures:

1. Access webpage
2. Navigate to subpage
3. Navigate back to main webpage using only buttons on the webpage
4. Repeat for each subpage

Measure of Success: User can navigate back to main screen using only navigation bar and buttons on webpage

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Test Number: PU-011
Author: Kylie Hall
Date: 4/17/23
Revision: 2.0
Test Purpose: Allow navigation to open folders in one left click.
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to the "Shared Files" section of the main page.
4. Left-click once on the folder "Board Assessments"

Measure of Success: Folder is opened to see folders and files within it.

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Test Number: PU-012
Author: Matthew Grimelli
Date: 4/17/2023
Revision: 2.0
Test Purpose: Ensure User can access and read buttons with a mouse
Test Procedures:
1. Navigate to main page using default browser formatting options
2. Read each button
3. Click on each button with mouse

Measure of Success: User can read and use buttons with a mouse

<>...<>

Test Number: PU-013
Author: Kylie Hall
Date: 4/17/23
Revision: 2.0
Test Purpose: Allow navigation to open folders in one left click.
Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to the "Shared Files" section of the main page.
4. Navigate to two default folders titled "working" and "programs"

Measure of Success: Folders "working" and "programs" exist.

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Test Number: PU-014
Author: Matthew Grimelli
Date: 4/17/23
Revision: 2.0
Test Purpose: Ensure the user can easily input text to text areas
Test Procedures:
1. Navigate to login page
2. Check that text-entry boxes are clear and easily read
3. Click on the "Register" link
4. Check that text-entry boxes are clear and easily read
5. Back out to login page
6. Click on "Lost your password?" link
7. Check that text-entry boxes are clear and easily read

Measure of Success: All text-entry boxes are clear and easily read

<>...<>

Test Number: PU-015
Author: Kylie Hall
Date: 4/17/23
Revision: 2.0
Test Purpose: Maintain version control
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. On "Shared Files" page select the "Board Meeting Materials" folder

Measure of Success: If the permissions and modified dates are visible.

<>...<>

Test Number: PU-016
Author: Kylie Hall
Date: 4/24/23

Revision: 2.0
Test Purpose: Logo Redirection
Test Procedures:
1. Navigate from the home page to log-in page
2. Left-click on the greenwell logo in the top left corner of the screen.

Measure of Success: If the user is redirected to the home page of the website.
<>..<>
Test Number: PU-017
Author: Kylie Hall
Date: 4/17/2023
Revision: 2.0
Test Purpose: Ensure only Administrator can delete files.
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to the working folders/files
4. Access the specific files
5. Attempt to delete file

Measure of Success: If user is unsuccessful at deleting file.

7.3 POV of Non-User

<>..<>
Test Number: PNU-001 PASS
Author: Aaron Guethlein
Date: 10/31/22
Revision: 1.0
Test Purpose: Ensure non-users cannot log-in
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a non-working access code

Measure of Success: A successful test is when the non-user can not enter the file share page.
<>..<>
Test Number: PNU-002

Author: Kylie Hall

Date: 4/17/2023

Revision: 2.0

Test Purpose: Ensure non-user is directed to login page at upon refresh of web page.

Test Procedures:
1. Navigate to home page
2. Click the refresh button on browser

Measure of Success: Displayed on monitor is the login page.

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7.4 POV of Admin User

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Test Number: PAU-001 PASS

Author: Aaron Guethlein

Date: 10/31/22

Revision: 1.0

Test Purpose: Ensure Admin can log in.

Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. See File Share webpage

Measure of Success: A successful login and the ability to access the file share system.

<>..<>

Test Number: PAU-002 PASS

Author: Aaron Guethlein

Date: 10/31/22

Revision: 1.0

Test Purpose: Ensure the user cannot log in if password is incorrect

Test Procedures:
1. Navigate from the home page to log-in page
2. Input a non-working access code
3. Receive a message to re-enter password

Measure of Success: A successful message is sent to the user if they incorrectly input the wrong password.

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Test Number: PAU-003 PASS

Author: Caleb Jenkins

Date: 11/14/22

Revision: 1.0

Test Purpose: Return to main screen

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Click on Greenwell logo to return to main site

Measure of Success: A successful test is when the admin returns to the main page.

<>...<>

Test Number: PAU-004 PASS

Author: Cole Doherty

Date: 11/14/22

Revision: 1.0

Test Purpose: File/Folder Filter

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to the working folders/files
4. Sort by alphabetical order, date, and keyword search across all folders

Measure of Success: A successful test is when the admin is able to filter different folders.

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Test Number: PAU-005 PASS

Author: Cole Doherty

Date: 11/14/22

Revision: 1.0

Test Purpose: Folders

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to a working folder

4.Ensure that the folder can hold files

Measure of Success: A successful test is when the admin is able to see different folders with files included within them.

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Test Number: PAU-006 PASS
Author: Naheed John
Date: 11/14/22
Revision: 1.0
Test Purpose: Administrator Deleting Files
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to the working folders/files
4. Access the specific files
5. Delete a file

Measure of Success: Only the administrator(s) is allowed to remove files, users or non users are not granted this access.

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Test Number: PAU-007 PASS
Author: Caleb Jenkins
Date: 11/14/22
Revision: 1.0
Test Purpose: Admin Permissions
Test Procedures:
1. Navigate to wordpress website
2. Login using admin credentials
3. Navigate to Users sidebar button
4. Select "User you wish to edit"
5. Click "role" dropdown menu
6. Choose appropriate role
7. Click "Update User"

Measure of Success: A successful test is when the admin is able to change an existing user account into an admin account

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Test Number: PAU-008 PASS

Author: Kylie Hall

Date: 04/24/2023

Revision: 2.0

Test Purpose: Restricted Permissions

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Hover over the button "Greenwell Foundation" with the mouse
4. Left-click on "Dashboard"
5. On the left column left-click on "WP File Manager"
6. Below "WP File Manager" left-click on the "Settings" button
7. Left-click on "User Role Restrictions"
8. Change the first block where the first drop down menu selects "Administrator"
9. On the multiple select options select "Rename" as the only option.
10. Left-click on the "Greenwell foundation visit site" in top left corner of screen
11. Navigate from the home page to log-in page
12. Input a working access code
13. Rename a file

Measure of Success: If the administrator is allowed to rename a file.

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Test Number: PAU-009 PASS

Author: Cole Doherty

Date: 11/14/22

Revision: 1.0

Test Purpose: Video Storage

Test Procedures:

1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to the videos folder
4. Drop a video within the specific video folder
5. A file no larger than 10mb should be able to be added to the folder
6. If a file is larger than 10mb then a message will be displayed saying the file is too large.

Measure of Success: A successful test is when the admin is able to drop videos into the video folder.

<>...<>

Test Number: PAU-010 PASS
Author: Caleb Jenkins
Date: 11/14/22
Revision: 1.0
Test Purpose: Register New User
Test Procedures:
1. Navigate to wordpress website
2. Login using admin credentials
3. Navigate to Users sidebar button
4. Click "Add new"
5. Fill out form
6. Verify that role is correct
7. Click "Add new user"

Measure of Success: A successful test is when a new user account is created

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Test Number: PAU-011
Author: Kylie Hall
Date: 4/17/23
Revision: 2.0
Test Purpose: Maintain administrator read permissions
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. On "Shared Files" page select the "Board Meeting Materials" folder

Measure of Success: If the read and write permissions are available

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Test Number: PAU-012
Author: Kylie Hall
Date: 4/19/23
Revision: 2.0
Test Purpose: To ensure events can be made on the timely calendar.
Test Procedures:
1. Navigate from the home page to log-in page

2. Input a working access code
3. Navigate to Wordpress dashboard
4. Click on timely plugin on left hand sidebar
5. Login if necessary
6. Click top right "Add event" button
7. Edit details
8. Click publish on bottom of the right sidebar

Measure of Success: If the event is visible on the calendar

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Test Number: PAU-013
Author: Kylie Hall
Date: 4/19/23
Revision: 2.0
Test Purpose: To Ensure events can be deleted on the timely calendar
Test Procedures:
1. Navigate from the home page to log-in page
2. Input a working access code
3. Navigate to wordpress dashboard
4. Click timely plugin on left sidebar
5. Login if necessary
6. Navigate to pertinent event
7. Click "read more" on the event
8. Select the trash button within the event

Measure of Success: If the event is no longer visible on the calendar

8. Miscellaneous

This section is not currently applicable.