Palouse Alliance Community Resource Platform

Project Requirements and Specifications

Palouse Alliance Team

05-SP26-FA26-PAHIFC-WEBMOB

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I. Introduction

I.1. Project Introduction

The Palouse Alliance Community Resource Platform is a digital initiative designed to make community health and wellness resources easier to find and easier to use across the Palouse region. Residents often need help quickly, but services are frequently scattered across separate nonprofit sites, county and state pages, flyers, and social media posts. That fragmentation creates real friction. People may not know what exists, which organization to contact, or whether information is still current. This platform addresses that gap by organizing trusted resources in one place and presenting them through a clear, searchable interface.

The platform is intended to support a wide range of users, including students, families, seniors, veterans, and individuals seeking housing support, food assistance, mental health services, or community programs. Rather than forcing residents to learn multiple websites and terminology, the platform will provide consistent categories, filters, and plain language descriptions. It will also highlight upcoming events and deadlines through a shared community calendar so residents can plan ahead instead of finding information at the last minute.

Accessibility is a core goal [3]. The project will follow established accessibility guidance [1], [3], [5] so that residents using assistive technologies, mobile devices, or limited bandwidth can still access critical information. In addition, the platform supports the organizations behind the services by reducing repeated outreach work and enabling simpler updates. Over time, this creates a more reliable community information hub, improves coordination among participating groups, and reduces the information gaps that can prevent people from getting help.

I.2. Background and Related Work

Currently, information about local services is spread across dozens of different websites and social media accounts, making it difficult for residents to find what they need. Many organizations are available to help, yet it is nearly impossible for residents to access the full range of services in a single search. This project is inspired by the Whiteman County Veterans website (whitmancountyveterans.com), which brings together vital information for local veterans. Research on community resource platforms highlights the importance of good design and accessibility [1-4].

Our platform will utilize that successful model to serve the entire Palouse community in hopes that all residents, not just veterans, have a single, reliable place to find the support they need. Past successes highlight the value of having an organization manage content updates, which helped to inform this project's design. We will deliver a custom made platform featuring a user friendly interface for searching, community calendars, and posting.
As the project develops, skills required include modern full stack web development, user authentication and data security, **SQL**, **AWS**, UI/UX design, database design, and content moderation and posting systems.

I.3. Project Overview

The Palouse Alliance Community Resource Platform will offer a community calendar and tools for organizations to post flyers for events, and meeting dates. Some core requirements include accessibility and responsiveness, the site should be available on laptop, tablet, and mobile devices, with support for those with disabilities. Members of the Alliance can keep their listing

current and share announcements. Visitors will be able to filter to make it easier to connect with the relevant event hosts. The calendar shows upcoming deadlines and events, while admins can moderate what is being posted to ensure the content is accurate and appropriate for the community. Technical development will rely on modern web **HTML** frameworks [4]. By focusing on making the website easy to use for the public and members, the project aims to improve events and lower barriers for everyone.

We expect to see increased discoverability and accessibility, better coordination, and a scalable platform that can be extended or adapted to future needs. We also aim to reduce the manpower required to post events and meeting dates so members can better focus on the community.

I.4.   Client and Stakeholder Identification and Preferences

Allison Rockwell (allison.rockwell@wsu.edu) serves as the primary client. She is responsible for communicating requirements, reviewing deliverables, and providing consolidated feedback from Alliance membership. She requests a platform with a low learning curve for end users and contributors. The main stakeholders include the Alliance organizations, the community members accessing the website, event organizers and volunteers, and technical maintainers.

For members, the ability to update listings, share events, and post flyers is essential. They can also protect sensitive details and display only chosen contact or service information. The general public values reliable information, responsive design, and clear categorization.

The initial meeting from the stakeholder helped us to realize we need an integrated calendar and simple flyer posting options. Consistent branding are priorities due to the nature of the website (for the public). Communication between the development team and Alliance will be through regular biweekly meetings. The reviews will be to review progress with requirements and gather feedback.

The platform must be highly accessible, and have a simple interface, must be available on laptop, tablet, and mobile devices, must be secure and respect the privacy of organization members, align with community values such as being inclusive and supportive, and be low maintenance, with content management having intuitive interfaces [3-6].

I.5.   Team Member Introduction

I.5.1.   Omar Adil

Omar Adil is a Computer Science student at Washington State University, graduating in December 2026. As a Software Engineer Intern at Silk, he designed a modular session management framework in Python for secure communication with Silk Virtual SAN platforms, and built a dynamic API construction engine for RESTful requests and authentication. Omar has experience developing reusable API helpers and automating system validation, supporting scalable backend solutions. Proficient in Python, C/C++, and C#. He is skilled with PostgreSQL, Node.js, and DevOps tools like Docker and GitHub. For the project, Omar will focus on backend integration, API development, and secure session management.

I.5.2.   Vijay Deva

Vijay Deva is a Computer Science major at Washington State University, expecting to graduate in December 2026. He previously interned at People Tech Group, where he developed and deployed a parking space detection machine learning pipeline using Yolo-NAS, achieving 97.7% accuracy, and integrated real-time model inference into a cloud-based management system. Vijay also built React and AngularJS UI components and implemented InfluxDB-powered data visualizations. He is adept with Python, C#, JavaScript frameworks, PostgreSQL, and Docker. For the project, Vijay will contribute to machine learning integration, full stack development, and deployment of analytical dashboards.

I.5.3. Kaeden Peterson

Kaeden Peterson is pursuing a Computer Science degree at Washington State University, class of December 2026. As an EECS Teaching Assistant, he supported courses by clarifying concepts, grading assignments, and ensuring consistent evaluation standards. Skilled in Python, C, C++, C#, and Java, Kaeden is also proficient with Docker, Linux/Bash, and collaborative tools like Git and GitHub. His experience coordinating with other TAs and proctoring exams allows him to manage technical and team responsibilities efficiently. For the team, Kaeden will lead testing, automation, and continuous integration setup, as well as contribute to core backend development.

I.5.4. Aryan Puthran

Aryan Puthran is a Computer Science student at Washington State University, graduating December 2026. As a VCEA Teaching Assistant, he supported over 200 students across programming and software engineering courses, offering debugging help, grading assignments, and facilitating group discussions to reinforce key concepts. During his Data Engineering internship at T-Mobile, he developed Grafana dashboards, analyzed network and location data, automated visualizations, and migrated legacy automation scripts to Python to improve maintainability. Familiar with C++, Python, SQL, Grafana, and CI/CD tools, Aryan will contribute to data analytics, visualization, and DevOps processes for the project.

II. System Requirements Specification

The Requirements and Specification section details the functional and non-functional requirements for this project. Functional requirements cover essential features like displaying events, membership, posting content, and searching. Non-functional requirements outline system constraints related to usability, reliability, branding, and maintainability. This section also includes **use cases**, which aligns requirements with objectives for development of the application.

II.1. Functional Requirements

Functional requirements define the specific features, actions, and capabilities the platform must provide to its users. These requirements describe how users interact with the system and what tasks they can accomplish.

II.1.1. Search and Discovery

Functional Requirement	[FR-1] Search for Services and Events
Description	The system will provide a search bar enabling users to input keywords and find relevant services or events.
Source	Initial functional requirements, meeting notes.
Priority	Level 0 (Essential functionality)
Functional Requirement	[FR-2] Category-Based Filtering
Description	The system will allow users to filter services or events by selecting categories (e.g. Housing, Health) and/or by event-specific tags.
Source	Initial functional requirements, meeting notes.
Priority	Level 0 (Essential functionality)

II.1.2. Events and Calendar

Functional Requirement	[FR-3] Event Calendar Integration
Description	The platform will provide a public calendar which displays all approved events. Events can be added or edited (posting/editing only by members; approval required before publication).
Source	Initial functional requirements, meeting notes.
Priority	Level 0 (Essential functionality)
Functional Requirement	[FR-6] View Flyers and Meetings
Description	Users (including public) can view flyers, events, and upcoming meetings from the calendar.
Source	Initial functional requirements, meeting notes.
Priority	Level 0 (Essential functionality)

II.1.3. User Management

Functional Requirement	[FR-4] Member and Admin Account Management
Description	The system will support membership registration ("click here to become a member") and sign in abilities. Member and admin accounts will be verified upon creation.
Source	Meeting notes.
Priority	Level 0 (Essential functionality)

II.1.4. Content Management

Functional Requirement	[FR-5] Event and Flyer Upload and Approval
Description	Members can upload events and flyers (as easy as sending an email). All posts require an admin's approval before becoming public.
Source	Meeting notes.
Priority	Level 0 (Essential functionality)
Functional Requirement	[FR-7] Organization and Agency Listings
Description	The system will include a dedicated page to listing community agencies/members.
Source	Meeting notes.
Priority	Level 1 (Desirable functionality)

II.1.5. Information Display and Privacy

Functional Requirement	[FR-8] Display Contact Information
Description	Listings in the calendar will show relevant contact information, available to all users (including public).
Source	Initial functional requirements.
Priority	Level 0 (Essential functionality)
Functional Requirement	[FR-9] Selective Display of Personal Information
Description	The platform will allow members to choose which personal information to share with optional fields and a disclaimer during registration and posting.

Source	Meeting notes.
Priority	Level 1 (Desirable functionality)

II.1.6. Volunteer and Community Features

Functional Requirement	[FR-10] **GivePulse** Integration
Description	The site will include a dedicated section linking GivePulse to improve volunteer activities.
Source	Meeting notes.
Priority	Level 0 (Essential functionality)

II.1.7. Platform Support and Analytics

Functional Requirement	[FR-11] Analytics and Attendance Tracking
Description	The system will track and display basic analytics (e.g. registration counts, attendance), available to admin users.
Source	Meeting notes.
Priority	Level 2 (Optional functionality)
Functional Requirement	[FR-12] Custom Domain Name Support
Description	The platform will support deployment under a custom domain name.
Source	Meeting notes.
Priority	Level 1 (Desirable functionality)
Functional Requirement	[FR-13] Branding and Theming
Description	The website will use logos, palettes, and branding guidelines provided by the stakeholders.
Source	Meeting notes.
Priority	Level 1 (Desirable functionality)
Functional Requirement	[FR-14] Responsive Web Design

Description	The platform will be responsive for laptop, tablet, and mobile displays.
Source	Meeting notes.
Priority	Level 0 (Essential functionality)
Functional Requirement	[FR-15] Search Engine Display
Description	Website pages will be visible in web search engines.
Source	Meeting notes.
Priority	Level 2 (Optional functionality)
Functional Requirement	[FR-16] Email Notifications for New Resources
Description	The system will send an email notification to all members when a new resource is posted on the website.
Source	Email from Chris.
Priority	Level 0 (Essential functionality)

II.2.   Non-Functional Requirements

Non-functional requirements focus on the qualities and operating standards of the platform rather than its direct functionalities. They specify how the system performs under certain conditions or constraints and help ensure a quality user experience.

Non-Functional Requirement	Description
[NFR-1] Usability	The interface should be intuitive and accessible for all users [3]. Uploading content (events, flyers, etc.) should be as easy as sending an email. Accessibility standards are followed.
[NFR-2] Scalability	The platform must handle a growing number of users and events without a degradation in performance [4].
[NFR-3] Reliability	The platform should be available 99% of the time, with minimal planned downtime [3].
[NFR-4] Maintainability	The tech stack should be modular and documented. Code reviews and version control will be used.
[NFR-5] Security and Privacy	Sensitive user data will be stored securely [5][6]. Members have control over public information. Authentication will be used.

[NFR-6] Platform Compatibility	The system will be accessible on modern browsers and devices (laptops, tablets, and phones).
[NFR-7] Brand Consistency	The site will consistently apply provided branding, including logos and palettes.

II.3. Use Cases

This section describes typical scenarios in which users interact with the Palouse Alliance Community Resource Platform. **Use cases** clarify how actors achieve goals within the system and show the relationships between system requirements and the user experience. See *Figure 1* below for an overview of system actors and their main actions.
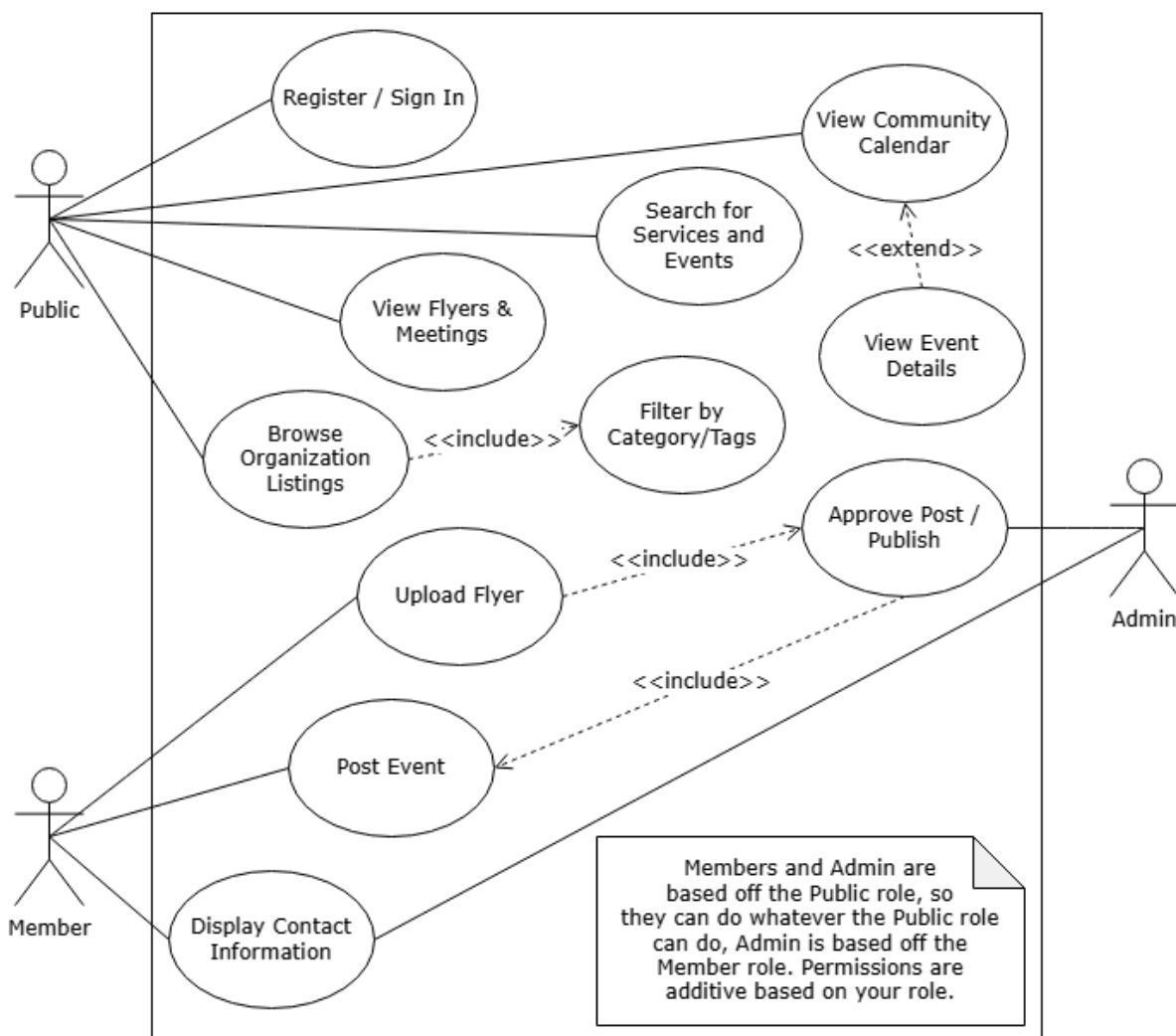

Figure 1: Use Case Diagram

II.3.1. [UC-1] Search and Attend Events

Use Case	Search and Attend Events
Actors	Public user, Member
Pre Condition	User is on the homepage (login not required).
Post Condition	User discovers events and may add to their calendar or explore details.
Main Flow	- User enters keywords in the search bar. - User optionally applies category or tag filters. - System displays a list of relevant services or events. - User selects an event to view more information. - User can save event details.
Alternative Flow	- No results found, user can adjust filters or submit a request for help.
Related Requirements	FR-1: Search for Services and Events FR-2: Category-Based Filtering FR-3: Event Calendar Integration FR-6: View Flyers and Meetings

II.3.2. [UC-2] Upload and Approve Event or Flyer

Use Case	Upload and Approve Event or Flyer
Actors	Member (uploads), Admin (approves)
Pre Condition	Member is logged in and accesses the event/flyer submission interface.
Post Condition	Event or flyer is posted to the calendar after admin approval.
Main Flow	- Member logs in and navigates to the submission page. - Member enters information and uploads files. - System sets item status as pending approval. - Admin logs in, reviews pending posts. - Admin approves (publishes) or rejects the submitted item.
Alternative Flow	- Admin rejects item, flyer/post isn't shown on public page.
Related Requirements	FR-4: Member and Admin Account Management FR-5: Event and Flyer Upload and Approval FR-16: Email Notifications for New Resources

II.3.3. [UC-3] Manage Organization Listing

Use Case	Manage Organization Listing
Actors	Member, Admin

Pre Condition	Member or admin is logged in and have access to their organization listing.
Post Condition	Organization listing is added, updated, or deleted.
Main Flow	- Member logs in and access the organization management page. - Member edits existing listings or create a new one (description, contacts, category, privacy). - Member saves changes. - System submits for admin approval.
Alternative Flow	- Admin removes listing, system archives it.
Related Requirements	FR-4: Member and Admin Account Management FR-7: Organization and Agency Listings FR-8: Display Contact Information FR-9: Display Contact Information

II.3.4. [UC-4] Volunteer Opportunity Discovery

Use Case	Volunteer Opportunity Discovery
Actors	Public user, Member
Pre Condition	User is on the homepage.
Post Condition	User discovers and explores volunteer opportunities via **GivePulse** integration.
Main Flow	- User navigates to the volunteer section. - System displays available opportunities via **GivePulse**. - User reviews details and may register or visit the external site.
Alternative Flow	- No current opportunities listed.
Related Requirements	FR-10: **GivePulse** Integration

II.3.5. [UC-5] Access Community Analytics

Use Case	Access Community Analytics
Actors	Admin
Pre Condition	Admin is logged in.
Post Condition	Admin views registration counts, attendance data, and other analytics.
Main Flow	- Admin logs into the dashboard.

	- Admin selects the analytics or reports section. - System displays up-to-date metrics and graphs.
Alternative Flow	- Data unavailable, system notifies admin of delay or error.
Related Requirements	FR-11: Analytics and Attendance Tracking

Please see the Appendix for additional **use cases**.

II.4.   User Stories

This section presents user stories that show goals and interactions of the Palouse Alliance Community Resource Platform from different user perspectives. Each user story is in Gherkin syntax to better specify user intent, relevant context, actions taken, and desired outcomes.

II.4.1. [US-1] User Login

As a member,
I want to log in to my account
so that I can access member-only features and manage my listings.

Feature: User Login
Scenario: Valid member logs in
        Given the member is on the login page
        When they enter their correct username and password
        Then they should be redirected to their account dashboard

II.4.2. [US-2] Search for Services or Events

As a resident,
I want to search for community services and events
so that I can find relevant support or activities quickly.

Feature: Service or Event Search
Scenario: User searches for a service or event
        Given the user is on the homepage
        When they enter a search term in the search bar
        Then relevant services or event listings should be displayed

II.4.3. [US-3] Category Filtering

As a visitor,
I want to filter services and events by category or tag
so that I can easily narrow down the results to what I need.

Feature: Category Filtering

Scenario: Filtering by category or tag
       Given the user is viewing services or events
       When they select a specific category or tag filter
       Then only relevant services or events should be shown

II.4.4. [US-4] Post Event or Flyer

As a member,
I want to submit a new event or flyer
so that our organization can share information with the community.

Feature: Event/Flyer Posting
Scenario: Member posts an event or flyer
       Given the member is logged in and on the submission page
       When they provide event or flyer details and submit
       Then the submission should be sent for admin approval

II.4.5. [US-5] Admin Approves Submissions

As an admin,
I want to review and approve submitted events and flyers before publication
so that only appropriate content appears publicly.

Feature: Submission Approval
Scenario: Admin approves a new submission
       Given the admin is reviewing pending submissions
       When they approve a submission
       Then the event or flyer should be published for public view

II.4.6. [US-6] View Flyers and Meetings

As a public user,
I want to view upcoming flyers, meetings, and events
so that I can stay informed about local resources and happenings.

Feature: Viewing Events
Scenario: User browses upcoming events
       Given the user is on the calendar or events page
       When they view the list of upcoming events
       Then event details should be displayed

II.4.7. [US-7] Manage Listing & Contact Info

As a member,
I want to edit my organization's listing and select what contact information is shared publicly
so that I retain privacy and provide correct details.

Feature: Organization Listing Management
Scenario: Member edits listing and selects privacy options
     Given the member is logged in and managing their listing
     When they update details and set privacy preferences
     Then the changes should be saved and appear accordingly

Please see the Appendix for additional user stories.

II.5.   Traceability Matrix

Functional Requirement	Use Cases	User Stories	Priority
FR-1: Search for Services and Events	UC-1: Search and Attend Events	US1: As a member, I want to log in to my account	Level 0
FR-2: Category-Based Filtering	UC-1: Search and Attend Events	US2: As a resident, I want to search for community services and events US3: As a visitor, I want to filter services and events	Level 0
FR-3: Event Calendar Integration	UC-1: Search and Attend Events	US2: As a resident, I want to search for community services and events	Level 0
FR-4: Member and Admin Account Management	UC-2: Upload and Approve Event or Flyer UC-3: Manage Organization Listing	US1: As a member, I want to log in to my account US7: As a member, I want to edit my organization's listing	Level 0
FR-5: Event and Flyer Upload and Approval	UC-2: Upload and Approve Event or Flyer	US4: As a member, I want to submit a new event or flyer US5: As an admin, I want to review and approve submissions	Level 0
FR-6: View Flyers and Meetings	UC-1: Search and Attend Events	US6: As a public user, I want to view upcoming flyers, meetings, and events	Level 0
FR-7: Organization and Agency Listings	UC-3: Manage Organization Listing	US7: As a member, I want to edit my organization's listing	Level 1
FR-8: Display Contact Information	UC-3: Manage Organization Listing	US7: As a member, I want to edit my organization's listing	Level 0
FR-9: Selective Display of Personal Information	UC-3: Manage Organization Listing	US7: As a member, I want to edit my organization's listing	Level 0

		and set privacy preferences	
FR-10: **GivePulse** Integration	UC-4: Volunteer Opportunity Discovery	US-9: Discover Volunteer Opportunities (Appendix)	Level 0
FR-11: Analytics and Attendance Tracking	UC-5: Access Community Analytics	US-10: View Platform Analytics (Appendix)	Level 2
FR-12: Custom Domain Name Support	UC-6: Manage Deployment and Branding (Appendix)	US-8: Update Platform Configuration (Appendix)	Level 1
FR-13: Branding and Theming	UC-6: Manage Deployment and Branding (Appendix)	US-8: Update Platform Configuration (Appendix)	Level 1
FR-14: Responsive Web Design	UC-1: Search and Attend Events	US6: As a public user, I want to view upcoming flyers, meetings, and events	Level 0
FR-15: Search Engine Display	UC-6: Manage Deployment and Branding (Appendix)	US-8: Update Platform Configuration (Appendix)	Level 2
FR-16: Email Notifications for New Resources	UC-2: Upload and Approve Event or Flyer	US5: As an admin, I want to review and approve submissions	Level 0

II.6.   Standards

This section lists the technical, legal, and professional standards that inform our requirements and design choices. Each standard is mapped to the parts of the specification it affects, including functional requirements, non-functional requirements, design, testing, security, and accessibility.

II.6.1. Standards Table

Standard / Code	Domain	Description	Application in Project
IEEE 830-1998: Software Requirements Specification [8]	Software Documentation	Guidance on the structure and content of SRS documents.	Used to organize functional and non-functional requirements, use cases, user stories, and the traceability matrix. Helps ensure requirements are clear, testable, and verifiable across the SRS.
ISO/IEC/IEEE 12207:2017: Software Life	Project Management / Process	Defines lifecycle stages and roles.	Shapes project phases from requirements through maintenance, and supports

			change control in System Evolution.
Cycle Processes [9]			
IEEE 1016-2009: Software Design Description (SDD) [10]	Design Documentation	Structure for describing software architecture.	Guides design artifacts such as module descriptions and interfaces. Supports maintainability (NFR-4) and documentation of calendar, listing, authentication, and API components.
IEEE 829-2008: Test Documentation [11]	QA / Testing	Formats for test plans, cases, and reports.	Used to document verification and validation for search, posting and approval flows, calendar features, accessibility, and regression testing. Mapped from FR-1 to FR-6, and FR-14 and FR-16.
W3C WCAG 2.2 (2023): Web Content Accessibility Guidelines [12]	Web / UI Accessibility	Success criteria and techniques to make web content perceivable, operable, and understandable.	Applied to UI, forms, calendars, flyers, and listing pages. Covers text alternatives, keyboard navigation, and clear labels and error messages. Supports NFR-1 and FR-3, FR-6, and FR-14.
WAI-ARIA 1.2 (2021): Accessible Rich Internet Applications [13]	Web Accessibility	Properties for accessible content.	Used for interactive components such as calendar widgets, filters, dialogs, and status messages to improve screen reader and keyboard support. Supports NFR-1, FR-2, and FR-3.
OWASP ASVS v4.0.3 (2021): Application Security Verification Standard [14]	Security	Requirements for authentication, sessions, and input validation.	Applied to member and admin accounts, session handling, upload validation, CSRF protections, and secure logging. Supports FR-4, FR-5, FR-16, and NFR-5.
IETF RFC 8446 (2018): TLS 1.3 [15]	Security / Transport	Transport protocol for encrypting data.	Required for all network traffic over HTTPS, including authentication, uploads, admin dashboards, and API calls. Supports NFR-5.
GDPR: Regulation (EU) 2016/679	Data Protection / Privacy	Framework for processing personal data and their rights.	Informs data minimization, consent for contact details and notifications, and ability to

(enforced 2018) [16]			access and delete. Supports FR-4, FR-9, FR-16, and NFR-5.
CAN-SPAM Act (2003) [17]	Email / Legal	U.S. requirements for commercial email and opt-out.	Applied to FR-16 email notifications, including accurate headers, clear identification, and unsubscribe or opt-out options.

II.6.2. How These Standards are Applied

Requirements and Lifecycle
- Requirements, use cases, and the traceability matrix follow IEEE 830 so each requirement is clear, and testable and traceable.
- The overall project lifecycle follows ISO/IEC/IEEE 12207, including roles, deliverables, and change management.
- Architecture and module documentation follow IEEE 1016 to support long-term maintainability (NFR-4).
- Test plans and test artifacts follow IEEE 829 to keep validation and regression testing consistent and auditable.

Accessibility
- Core user flows like search, filtering, calendars, flyer views, and submission forms will meet WCAG 2.2 success criteria.
- Interactive UI elements will use WAI-ARIA patterns where appropriate to ensure strong screen reader and keyboard support.
- U.S. accessibility guidance from Section 508 and the ADA will inform content clarity and effective communication.

Security and Privacy
- Authentication, authorization, session controls, and input validation will align with OWASP ASVS at a level appropriate for a public community platform (NFR-5).
- All traffic will be encrypted using HTTPS, with a preference for TLS 1.3 as defined in RFC 8446.
- Personal data handling will follow privacy-by-default practices inspired by GDPR, including consent and data minimization. Email notifications will follow CAN-SPAM rules.
- Controls for CSRF, XSS, and file upload validation will be implemented and captured in the security design.

Web Standards and SEO
- Semantic HTML, appropriate meta tags, and structured data will support accessibility and discoverability (FR-15).
- Branding and theming (FR-13) will be applied consistently without breaking semantic structure or assistive technology support.

II.6.3. Scope and Compliance

HIPAA is out of scope because the platform doesn't collect or process protected health information (PHI). If future requirements introduce PHI, then HIPAA controls will be added and this section updated.

Where legal obligations vary by region (for example GDPR and CCPA), the project will use a risk-based approach. We will implement consent and data minimization by default, then add region-specific controls as needed.

III. System Evolution

The Palouse Alliance Community Resource Platform is designed to be flexible and adaptable as technology and community needs change. We anticipate that user expectations will evolve, new types of events or resources may need to be supported, and integration with additional services or partner organizations may be required in the future. To address this, the system is built on **modular architecture** and cloud-based infrastructure, which can scale to accommodate increasing usage and new features.

Potential change points include updates to branding, accessibility standards, or security requirements, as well as shifts in local or regional partnerships. By documenting our code, maintaining modular interfaces, and following best practices for maintainability and accessibility, we aim to reduce risks associated with technological changes and ensure the platform remains relevant and reliable as user and organizational needs evolve.

IV. Glossary

AWS	Amazon Web Services; A cloud computing platform that offers scalable services like storage, databases, and networking operations.
GivePulse	Platform designed to help individuals and organizations find and track volunteer opportunities.
HTML	HyperText Markup Language; standard markup language used to create the structure of webpages.
Modular Architecture	Design approach that structures a program into independent and interchangeable parts called modules.
SEO	Search Engine Optimization; the process of improving a website to increase its visibility in organic search results, driving unpaid, relevant traffic.
SQL	Structured Query Language; standardized programming language used to manage and manipulate data in databases.
Use Cases	Description of interactions between an actor and system.

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VI. Appendix

VI.1. Additional Use Cases

VI.1.1. [UC-6] Manage Deployment and Branding

Use Case	Manage Deployment and Branding
Actors	Admin, Technical Maintainer
Pre Condition	Admin/tech maintainer is authenticated and has access to platform settings.
Post Condition	Custom domain, branding, and **SEO** options updated.
Main Flow	- Admin navigates to deployment/configuration settings. - Admin updates domain name, branding theme, or **SEO** metadata. - Platform reflects the updates appropriately.
Alternative Flow	- Invalid values, system prompts user for correction.
Related Requirements	FR-12: Custom Domain Name Support FR-13: Branding and Theming FR-15: Search Engine Display

VI.2. Additional User Stories

VI.2.1. [US-8] Update Platform Configuration

As an admin or technical maintainer,
I want to update branding and **SEO** settings
so that the platform aligns with our organization's needs and is discoverable online.

Feature: Platform Management
Scenario: Update settings
        Given the admin is in settings
        When they update the branding or **SEO**
        Then the platform records and applies the changes

VI.2.2. [US-9] Discover Volunteer Opportunities

As a resident,
I want to browse volunteer opportunities
so that I can find ways to help my community.

Feature: **GivePulse** Integration
Scenario: Viewing available volunteer opportunities
        Given the user is on the volunteer opportunities page
        When they view the list of available opportunities
        Then opportunities integrated from **GivePulse** should be displayed

VI.2.3. [US-10] View Platform Analytics

As an admin,
I want to access analytics and attendance tracking
so that I can monitor site usage and event participation.

Feature: Platform Analytics
Scenario: Admin reviews analytics dashboard
      Given the admin is logged into the dashboard
      When they navigate to the analytics section
      Then usage statistics and attendance reports should be displayed