

1.

2. Requirements

1. Functional Requirements

| Function /Feature/ Task | Priority | Difficulty | Complexity | Testing | Definition of Done | Resources |
|-----------------------------|--|------------|------------|---|---|--|
| | <i>(Scale between 1-5, where 1 is the lowest and 5 is the highest)</i> | | | <i>Identify and describe how and when the product will be tested over the course of the project/semester.</i> | <i>Describe a set of conditions that allow your team to assess the product's completion for the project/semester.</i> | <i>List the required library, API, language, package, connected function(s), connected database etc.</i> |
| <i>Fun_1</i> | 2 | 3 | 4 | (A) <i>e.g., see section A of the 'Acceptance Testing' section</i> | (1) <i>e.g., see section A of the 'Definition of Done' section</i> | |
| Community Member Onboarding | 5 | 3 | 3 | Unit test account creation, integration test full onboarding flow | A visitor can become a Community Member. | MongoDB, Node.js, Express, Stripe API |
| Account Management | 5 | 3 | 3 | Unit test CRUD actions, integration test role updates | User can log in/out, update details, deactivate account, and role changes propagate correctly | MongoDB, JWT, bcrypt |
| Membership Payment | 5 | 4 | 4 | Simulate Stripe test payments, verify webhook | Payment successfully processed, receipt emailed, | Stripe API |

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| Integration | | | | receipts | membership marked as paid | |
| Meeting Minute Access | 4 | 2 | 2 | Upload/download test, permission checks | An Administrator can upload and publish Meeting Minutes, and Community Members can view them. | MongoDB GridFS, role-based access middleware |
| Editorial Dashboard | 4 | 4 | 4 | CRUD content test, image upload test | A Content Manager or Administrator can make changes to the public content. | Vue, Node.js, MongoDB |
| Member List Viewer | 4 | 2 | 2 | Query test, filter test | Administrators can view details of all members on the list. | MongoDB, Mongoose |
| Event Calendar | 3 | 3 | 3 | CRUD event test, calendar UI test | Administrators can create events visible to Visitors. | Vue, MongoDB |
| Blog Submission and Approval | 3 | 3 | 3 | Submission, approval/rejection, publish visibility tests | A Visitor can submit and an Administrator can approve. | MongoDB, Vue, Node.js, Express |
| Contact Us Form Email Integration | 2 | 2 | 2 | Form validation test, email send test | The authorised email receives the Visitor's enquiry. | Nodemailer (Node.js module for sending emails) |

2. Non-Functional Requirements

| Function /Feature/ Task | Priority | Difficulty | Complexity | Testing | Definition of Done | Resources |
|-------------------------|--|------------|------------|---|--|---|
| | <i>(Scale between 1-5, where 1 is the lowest and 5 is the highest)</i> | | | <i>Identify and describe how and when the product will be tested over the course of</i> | <i>Describe a set of conditions that allow your team to assess the product's</i> | <i>List the required library, API, language, package, connected</i> |

| | | | | <i>the project/semester.</i> | <i>completion for the project/semester.</i> | <i>function(s), connected database etc.</i> |
|-----------------|----------|----------|----------|---|--|---|
| <i>Fun_1</i> | <i>2</i> | <i>3</i> | <i>4</i> | (A) <i>e.g., see section A of the 'Acceptance Testing' section</i> | (1) <i>e.g., see section A of the 'Definition of Done' section</i> | xxx |
| Performance | 5 | 3 | 3 | Load testing (50 concurrent users), response time monitoring | System responds under 2 seconds with 50 concurrent users | Apache JMeter, Chrome DevTools |
| Security | 5 | 4 | 4 | Penetration testing, JWT expiry checks | All pages behind login require valid JWT, passwords are hashed, sensitive data encrypted | bcrypt, JWT, Helmet.js, TLS |
| Usability | 4 | 2 | 2 | User acceptance tests, UI/UX review | ≥80% of users complete key tasks without guidance and report ease of use | Figma (prototyping), user test participants |
| Reliability | 4 | 3 | 3 | Uptime monitoring, error logging | ≥99% uptime during tests, graceful error handling and logging implemented | PM2, Winston logger |
| Scalability | 3 | 4 | 3 | Simulated scaling test | Application handles increased traffic by horizontal scaling | Docker, Kubernetes (optional) |
| Maintainability | 3 | 3 | 3 | Code review, linting, documentation audit | All code is documented and passes linting with no critical errors | ESLint, Prettier, JSDoc |

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|---------------------|---|---|---|------------------------------------|--|--------------------------|
| Accessibility | 3 | 2 | 2 | Screen reader test, WCAG checklist | All pages meet WCAG 2.1 AA guidelines | axe DevTools, Lighthouse |
| Backup and Recovery | 2 | 2 | 2 | Database backup/restore simulation | Weekly backups run successfully, recovery completed within 2 hours | MongoDB Atlas backups |

3. User Stories/Narratives

2.3.1. Community Member Onboarding

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U101 | As a Visitor, I want to locate and press the “Join” button so that I can start the onboarding process to become a Community Member. | H | 4 |
| U102 | As a Visitor, I want to provide my personal information when becoming a member, so that I can progress in the onboarding process. | H | 6 |
| U103 | As a Visitor, I want to securely create a password so that I can access my account in the future. | H | 5 |
| U104 | As a Visitor, I want to provide my payment details so that I can complete the membership contribution during the onboarding process. | H | 6 |
| U105 | As a Visitor, I want a new webpage to confirm that onboarding is complete so that I receive a clear indication that it was successful. | L | 2 |

| ID | User Story | Priority | Estimate |
|------|---|----------|----------|
| U106 | As a Visitor, I want to be redirected to the Login page so that I can immediately access my account after onboarding. | L | 3 |

2.3.2. Account Management

| ID | User Story | Priority | Estimate |
|------|---|----------|----------|
| U201 | As an Account Holder, I want to locate and press the “Login” button, so that I can access my account. | H | 4 |
| U202 | As an Account Holder, I want to log in using my email and password so that I can access the correct account. | H | 6 |
| U203 | As an Account Holder, I want my password to be masked so that it is not displayed when in public. | M | 1 |
| U204 | As an Account Holder, I want to update my personal details so that my account information stays accurate. | M | 4 |
| U205 | As an Account Holder, I want to deactivate my account so that all my data is removed from the system. | M | 2 |
| U206 | As an Account Holder, I want to change my password so that I can strengthen the security of my account. | M | 2 |
| U207 | As an Account Holder, I want to update my email address so that notifications are forwarded to my preferred communication method. | M | 2 |
| U208 | As an Administrator, I want to create a Content Manager account so that they can edit the public-facing content. | H | 5 |

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U209 | As an Administrator, I want to create an Administrator account so that they can access everything on the system. | H | 5 |
| U210 | As an Administrator, I want to deactivate an Account Holder so that they lose system access and permissions. | M | 2 |
| U211 | As an Administrator, I want to change the role of an Account Holder so that permissions are enforced correctly. | L | 4 |

2.3.3. Membership Payment Integration

| ID | User Story | Priority | Estimate |
|------|---|----------|----------|
| U301 | As a Visitor or Community Member, I want to be redirected to the payment platform (Stripe) so that I can process my payment. | H | 7 |
| U302 | As a Visitor, I want to use the Stripe payment platform, so that I can securely process my payment with Pymont Action. | H | 8 |
| U303 | As the Treasurer, I want to be sent email notifications when a payment is processed so that I can update financial records. | H | 6 |
| U304 | As a new or current Community Member, I want to receive an automatic receipt by email after payment so that I have proof of membership. | H | 6 |
| U305 | As a Community Member, I want to be notified when my membership is about to expire so that I can renew on time. | M | 4 |

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U306 | As a Community Member, I want my membership status and renewal date shown so that I am aware when to renew it. | L | 3 |

2.3.4. Meeting Minute Access

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U401 | As an Administrator, I want to upload Meeting Minutes as a PDF on a private-facing webpage so that members can access them securely. | H | 6 |
| U402 | As an Administrator, I want to control when Meeting Minutes are published so that only finalised documents are visible to members. | H | 4 |
| U403 | As a Community Member, I want to view published Meeting Minutes so that I can stay informed about decisions and updates. | H | 3 |
| U404 | As an Administrator, I want to edit or replace uploaded Meeting Minutes so that I can correct errors or update content. | M | 5 |
| U405 | As a Community Member, I want to receive a notification when new Meeting Minutes are published so that I can stay updated. | M | 4 |
| U406 | As an Administrator or Community Member, I want to organise Meeting Minutes by date so that I can easily find | L | 5 |

| ID | User Story | Priority | Estimate |
|----|------------|----------|----------|
| | records. | | |

2.3.5. Editorial Dashboard

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U501 | As an Administrator or Content Manager, I want to access the editorial dashboard so that I can manage public-facing webpages in one place. | H | 7 |
| U502 | As an Administrator or Content Manager, I want to see a list of all editable webpages so that I can quickly navigate to the one I need. | H | 5 |
| U503 | As an Administrator or Content Manager, I want to select a webpage from the dashboard so that I can access editing features for it. | H | 3 |
| U504 | As an Administrator or Content Manager, I want to upload images and text to a webpage so that I can enrich the content. | M | 6 |
| U505 | As an Administrator or Content Manager, I want to remove outdated items from a webpage so that the content stays relevant. | M | 4 |

2.3.6. Member List Viewer

| ID | User Story | Priority | Estimate |
|------|---|----------|----------|
| U601 | As an Administrator, I want to view a list of all registered Community Members so that I can monitor membership. | M | 7 |
| U602 | As an Administrator, I want each member's full name to be displayed so that I can identify individuals. | M | 2 |
| U603 | As an Administrator, I want each member's email address to be shown so that I can contact them if needed. | M | 2 |
| U604 | As an Administrator, I want to see whether a member is active or inactive so that I can track renewals. | M | 3 |
| U605 | As an Administrator, I want to filter the list by active/inactive status so that I can manage renewals efficiently. | L | 6 |
| U606 | As an Administrator, I want to search for a member by name or email so that I can locate specific records. | L | 6 |

2.3.7. Event Calendar

| ID | User Story | Priority | Estimate |
|------|---|----------|----------|
| U701 | As an Administrator, I want to add new events to the Event Calendar so that the community can stay informed. | H | 6 |
| U702 | As a Visitor, I want to view upcoming events on the Event Calendar so that I can participate in community activities. | H | 4 |

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U703 | As an Administrator, I want to include the event name, date, location, and description so that all relevant details are visible. | H | 6 |
| U704 | As an Administrator, I want to edit event details after posting so that I can correct or update information. | M | 7 |
| U705 | As an Administrator, I want to delete past or cancelled events so that the calendar stays clean and accurate. | M | 5 |
| U706 | As a Visitor, I want to click on an event to see full details so that I can decide whether to attend. | L | 4 |
| U707 | As a Visitor, I want to see a calendar view and a list view so that I can choose how to browse events. | L | 5 |
| U708 | As an Administrator, I want to duplicate past events so that I can reuse them for future planning. | L | 7 |

2.3.8. Blog Submission and Approval

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U801 | As a Visitor, I want to write and submit blog content so that I can express my views to the community. | M | 5 |
| U802 | As a Visitor, I want to draft a blog post anonymously so that I can share my thoughts without revealing my identity. | M | 5 |
| U803 | As a Visitor, I want to draft a blog post with my name so that I can be credited for my contribution. | M | 5 |

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U804 | As a Visitor, I want to be prompted to review my draft before submitting it, so that I can fix grammatical errors and improve clarity. | M | 5 |
| U805 | As an Administrator, I want to view all submitted blog drafts so that I can manage approvals. | H | 7 |
| U806 | As an Administrator, I want to reject inappropriate blog posts so that the site remains respectful and safe. | H | 7 |
| U807 | As an Administrator, I want to edit blog posts before publishing so that I can fix formatting or minor issues. | L | 7 |
| U808 | As a Visitor, I want to view published blog posts so that I can read community contributions. | H | 6 |

2.3.9. Contact Us Form Email Integration

| ID | User Story | Priority | Estimate |
|------|--|----------|----------|
| U901 | As a Visitor, I want to submit a message through the contact form so that I can reach Pymont Action. | M | 3 |
| U902 | As an Enquiry Email Holder, I want to receive the Visitor's message, name, email address, and subject line via email so that I can respond appropriately. | L | 3 |
| U903 | As an Enquiry Email Holder, I want the contact form to be configured to send emails to a specific email address so that enquiries reach the correct recipient. | L | 3 |

4. User Narratives

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| Use Case ID | UC101: Community Member Onboarding |
| User Story | As a Visitor, I want to become a Community Member so that I can access exclusive content. |
| Goal | The Visitor completes registration and becomes a Community Member. |
| Priority | High |
| Actors | Primary Actor: Visitor Secondary Actors: Web application, Database, Stripe API |
| Pre-conditions | <ul style="list-style-type: none">- Visitor is on the onboarding webpage.- Visitor has a valid email address and payment method. |
| Post-conditions | <ul style="list-style-type: none">- Visitor's account is stored in the database and marked as active.- Visitor is redirected to the login page. |
| Trigger | The Visitor clicks the "Join" button on the onboarding page. |
| Main Flow | <ol style="list-style-type: none">1. The Visitor clicks the "Join" button.2. The system displays the registration form.3. The Visitor enters personal details and creates a secure password.4. The Visitor is redirected to the Stripe payment portal.5. The Visitor enters payment details and completes the payment.6. The system saves the account information, marks the member as active, and shows a success confirmation.7. The Visitor is redirected to the login page.8. The use case ends. |
| Exceptions | E1. Steps 1–8 – closing the browser during onboarding pauses the process. E2. Step 5 – Payment fails due to declined card or timeout. |
| Includes | UC205: Account Login, UC301: Membership Payment |
| Supporting Information | All personal data must comply with the organisation's privacy policy and PCI DSS for payments. |
| Non-functional Requirements | Performance: Average response time < 2 seconds. Security: Passwords hashed with bcrypt, all steps use TLS. |
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| Alternate Flow 1 | <p>“Invalid Details”</p> <p>Trigger</p> <p>The Visitor enters missing or invalid personal information.</p> <p>Step</p> <p>The system highlights invalid fields and displays error messages. The Visitor corrects the details and resubmits the form.</p> <p>Alt Flow</p> <p>The Visitor’s corrected data is validated successfully, and they continue from Step 3 of the Main Flow.</p> <p>Post conditions</p> <p>The corrected data is stored and used for the account creation process.</p> <p>Exceptions</p> <p>E1. Step 2 – If incorrect five times, the session locks for five minutes.</p> |
| Alternate Flow 2 | <p>“Payment Cancelled”</p> <p>Trigger</p> <p>The Visitor cancels the payment on the Stripe page.</p> <p>Step</p> <p>The system returns to the onboarding page with a banner saying “Payment was not completed.”</p> <p>Alt Flow</p> <p>The Visitor can retry the payment or exit onboarding.</p> <p>Post conditions</p> <p>The account remains inactive until the payment succeeds, at which point the Visitor rejoins Step 5 of the Main Flow.</p> <p>Exceptions</p> <p>E1. Step 5 – If the session times out, the onboarding process restarts from Step 1.</p> |

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| Use Case ID | UC201: Account Management |
| User Story | As an Account Holder, I want to manage my account so that my information stays current. |
| Goal | The Account Holder updates personal information and manages access securely. |
| Priority | High |
| Actors | Primary Actor: Account Holder Secondary Actors: Database |
| Pre-conditions | The Account Holder is logged in. |
| Post-conditions | Account details are updated in the database. |
| Trigger | The Account Holder selects “My Account” from the menu. |

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| Main Flow | <ol style="list-style-type: none"> 1. The Account Holder logs in. 2. They navigate to My Account. 3. They edit personal details or security settings. 4. They click Save. 5. The system validates and stores the updates. 6. The system confirms success. 7. The use case ends. |
| Exceptions | <p>E1. Invalid field inputs (e.g. weak password, duplicate email).</p> <p>E2. Session timeout during editing.</p> |
| Includes | UC206: Change Password |
| Supporting Information | All personal data must comply with the organisation's privacy policy. |
| Non-functional Requirements | <p>Performance: Average update < 2 seconds.</p> <p>Security: Passwords hashed, data transmitted via TLS.</p> |
| | |
| Alternate Flow 1 | <p>"Weak Password"</p> <p>Trigger</p> <p>The Account Holder enters a password that fails the strength policy.</p> <p>Step</p> <p>The system displays a strength meter and password requirements.</p> <p>Alt Flow</p> <p>The Account Holder chooses a stronger password and resubmits.</p> <p>Post conditions</p> <p>The new password is saved (hashed).</p> <p>Exceptions</p> <p>E1. Step 3 – If weak 5 times, account is temporarily locked.</p> |
| Alternate Flow 2 | <p>"Email Already Used"</p> <p>Trigger</p> <p>The Account Holder enters an email already registered.</p> <p>Step</p> <p>The system shows an error: "Email is already registered."</p> <p>Alt Flow</p> <p>The Account Holder enters a different email.</p> <p>Post conditions</p> <p>The new email is saved.</p> <p>Exceptions</p> <p>E1. Step 3 – System cannot verify email due to timeout.</p> |
| Use Case ID | UC301: Membership Payment Integration |
| User Story | As a Member, I want to pay for membership so that I can maintain access. |

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| Goal | The Member completes a secure online payment and renews their membership. |
| Priority | High |
| Actors | Primary Actor: Member Secondary Actors: Stripe API, Treasurer |
| Pre-conditions | - The Member is logged in. - The Stripe payment system is active. |
| Post-conditions | - Payment is processed and recorded. - Membership expiry is extended. - A receipt is emailed to the Member. |
| Trigger | The Member clicks “Renew Membership”. |
| Main Flow | 1. The Member clicks Renew Membership. 2. The system redirects to the Stripe checkout page. 3. The Member enters payment details and confirms. 4. Stripe processes the payment and returns success. 5. The system updates the membership status. 6. The system emails a receipt. 7. The use case ends. |
| Exceptions | E1. Card declined or payment error. E2. Webhook confirmation delayed. |
| Includes | UC905: Email Notification |
| Supporting Information | The payment must meet PCI DSS security standards. |
| Non-functional Requirements | Performance: End-to-end < 3 seconds after Stripe confirmation. Security: TLS 1.2+, Stripe idempotency keys. |
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| Alternate Flow 1 | <p>“Card Declined”</p> <p>Trigger</p> <p>The payment is declined by Stripe.</p> <p>Step</p> <p>The system shows the decline reason and asks the Member to try again.</p> <p>Alt Flow</p> <p>The Member enters new card details and resubmits.</p> <p>Post conditions</p> <p>The payment is accepted and processed.</p> <p>Exceptions</p> <p>E1. Step 3 – If declined 3 times, transaction is cancelled.</p> |

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| Alternate Flow 2 | <p>“Webhook Delayed”</p> <p>Trigger Stripe confirmation is delayed.</p> <p>Step The system shows a “pending” banner and retries status in the background.</p> <p>Alt Flow When the webhook arrives, the system updates the membership and emails the receipt.</p> <p>Post conditions The payment is recorded correctly.</p> <p>Exceptions E1. Step 4 – Webhook never arrives → flagged for manual review.</p> |
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| Use Case ID | UC401: Meeting Minute Access |
| User Story | As an Administrator, I want to publish meeting minutes so that members stay informed. |
| Goal | The Administrator uploads and publishes meeting minutes that members can view. |
| Priority | High |
| Actors | Primary Actor: Administrator Secondary Actors: Database, Community Members |
| Pre-conditions | - The Administrator is logged in with the correct permissions. |
| Post-conditions | - The meeting minutes are saved in the database and visible to members. |
| Trigger | The Administrator selects “Upload Minutes” from the admin dashboard. |
| Main Flow | <ol style="list-style-type: none"> 1. The Administrator selects a PDF file of the minutes. 2. The Administrator clicks Upload. 3. The system validates and saves the file with metadata (date, title). 4. The Administrator toggles Publish. 5. The minutes appear on the members’ page for viewing or download. 6. The use case ends. |
| Exceptions | <p>E1. The uploaded file is not a PDF.</p> <p>E2. The file size exceeds the maximum limit.</p> |
| Includes | UC403: Member Views Minutes |
| Supporting Information | Files must be securely stored and accessible only by authorised users. |
| Non-functional | Performance: Upload < 5 seconds for 10 MB files. |

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| Requirements | Security: Role-based access enforced. |
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| Alternate Flow 1 | <p>“Draft Only”</p> <p>Trigger</p> <p>The Administrator uploads but does not publish.</p> <p>Step</p> <p>The minutes are saved as Draft and visible only to the Administrator.</p> <p>Alt Flow</p> <p>The Administrator can return later to publish them.</p> <p>Post conditions</p> <p>The minutes remain hidden from members.</p> <p>Exceptions</p> <p>E1. Step 4 – Draft is deleted accidentally.</p> |
| Alternate Flow 2 | <p>“Permission Denied”</p> <p>Trigger</p> <p>A non-admin user attempts to upload minutes.</p> <p>Step</p> <p>The system blocks the upload attempt and displays an error message.</p> <p>Alt Flow</p> <p>The user is told to request admin access.</p> <p>Post conditions</p> <p>No file is stored.</p> <p>Exceptions</p> <p>E1. Step 2 – Event not logged due to a system error.</p> |

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| Use Case ID | UC501: Editorial Dashboard |
| User Story | As an Administrator or Content Manager, I want to edit pages so that content stays current. |
| Goal | The user edits and publishes content on the website. |
| Priority | High |
| Actors | Primary Actor: Administrator or Content Manager Secondary Actors: Database, Web server |
| Pre-conditions | The Administrator/Content Manager is logged in. |
| Post-conditions | The changes are saved and appear live on the website. |
| Trigger | The user selects a webpage from the editorial dashboard. |

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| Main Flow | <ol style="list-style-type: none"> 1. The user opens the editorial dashboard. 2. The user selects a webpage tile. 3. The system shows the editing interface. 4. The user updates text, images, or layout. 5. The user clicks Publish. 6. The system updates the live content. 7. The use case ends. |
| Exceptions | <p>E1. Invalid image file format.</p> <p>E2. Internet connection lost during save.</p> |
| Includes | UC504: Upload Content |
| Supporting Information | Version history should be stored for all edits. |
| Non-functional Requirements | <p>Performance: Update reflects within 2 seconds.</p> <p>Maintainability: All changes logged with editor name and time.</p> |
| | |
| Alternate Flow 1 | <p>“Save as Draft”</p> <p>Trigger</p> <p>The user chooses to save without publishing.</p> <p>Step</p> <p>The content is stored as a Draft only visible to editors.</p> <p>Alt Flow</p> <p>The user can later publish it.</p> <p>Post conditions</p> <p>The content is not visible publicly.</p> <p>Exceptions</p> <p>E1. Step 4 – Draft is lost due to a browser crash.</p> |
| Alternate Flow 2 | <p>“Edit Conflict”</p> <p>Trigger</p> <p>Two users try editing the same page simultaneously.</p> <p>Step</p> <p>The system detects a conflict and blocks the second save.</p> <p>Alt Flow</p> <p>The second user is prompted to refresh and merge changes.</p> <p>Post conditions</p> <p>Only one version is saved.</p> <p>Exceptions</p> <p>E1. Step 5 – Conflict detection fails and overwrites changes.</p> |

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| Use Case ID | UC601: Member List Viewer |
| User Story | As an Administrator, I want to view all registered members so I can manage the community. |
| Goal | The Administrator sees a searchable list of members. |
| Priority | Medium |

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| Actors | Primary Actor: Administrator Secondary Actors: Database |
| Pre-conditions | The Administrator is logged in. |
| Post-conditions | The list of members is displayed with details. |
| Trigger | The Administrator selects "Members" from the admin dashboard. |
| Main Flow | <ol style="list-style-type: none"> 1. The Administrator clicks Members. 2. The system loads all member records. 3. The Administrator can scroll, search, or filter. 4. The Administrator views individual member details. 5. The use case ends. |
| Exceptions | E1. No members exist. E2. Search query returns no results. |
| Includes | UC605: Filter Active/Inactive |
| Supporting Information | Must support pagination for large lists. |
| Non-functional Requirements | Performance: Load 500 members in < 2 seconds. Security: Admin-only access. |
| | |
| Alternate Flow 1 | <p>"No Results"</p> <p>Trigger</p> <p>The search finds no members.</p> <p>Step</p> <p>The system shows "No members found."</p> <p>Alt Flow</p> <p>The Administrator resets the search filter.</p> <p>Post conditions</p> <p>The full list reloads.</p> <p>Exceptions</p> <p>E1. Step 3 – The search function times out.</p> |
| Alternate Flow 2 | <p>"Server Error"</p> <p>Trigger</p> <p>The database query fails.</p> <p>Step</p> <p>The system displays "Unable to load members."</p> <p>Alt Flow</p> <p>The Administrator retries after a few seconds.</p> <p>Post conditions</p> <p>The list loads successfully.</p> <p>Exceptions</p> <p>E1. Step 2 – Multiple retries fail due to server crash.</p> |

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| Use Case ID | UC701: Event Calendar |
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|-----------------------------|---|
| User Story | As an Administrator, I want to add events so that the community stays informed. |
| Goal | The Administrator creates a new event and publishes it. |
| Priority | High |
| Actors | Primary Actor: Administrator Secondary Actors: Database |
| Pre-conditions | The Administrator is logged in. |
| Post-conditions | The event is stored and visible on the calendar. |
| Trigger | The Administrator clicks "Add Event". |
| Main Flow | <ol style="list-style-type: none"> 1. The Administrator clicks Add Event. 2. The system opens the event form. 3. The Administrator fills in event details. 4. The Administrator clicks Publish. 5. The event appears on the calendar. 6. The use case ends. |
| Exceptions | E1. Invalid or missing fields. E2. Invalid date format. |
| Includes | UC704: Edit Events |
| Supporting Information | The event should include title, date, time, location, and description. |
| Non-functional Requirements | Performance: Events display within 2 seconds. Usability: Calendar view supports both list and month views. |
| | |
| Alternate Flow 1 | <p>"Save as Draft"</p> <p>Trigger</p> <p>The Administrator saves without publishing.</p> <p>Step</p> <p>The event is stored as Draft.</p> <p>Alt Flow</p> <p>The Administrator can publish later.</p> <p>Post conditions</p> <p>The event is hidden from public view.</p> <p>Exceptions</p> <p>E1. Step 3 – Draft not saved due to session timeout.</p> |

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| Alternate Flow 2 | <p>“Duplicate Event”</p> <p>Trigger The Administrator duplicates a past event.</p> <p>Step The system copies the details into a new form.</p> <p>Alt Flow The Administrator edits and publishes it.</p> <p>Post conditions The new event appears on the calendar.</p> <p>Exceptions E1. Step 2 – Wrong date copied from original.</p> |
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| Use Case ID | UC801: Blog Submission and Approval |
| User Story | As a Visitor, I want to submit a blog post so that I can contribute to the community. |
| Goal | The Visitor submits a blog draft which the Administrator approves or rejects. |
| Priority | Medium |
| Actors | Primary Actor: Visitor Secondary Actors: Administrator, Database |
| Pre-conditions | The Visitor is logged in or provides name/email. |
| Post-conditions | The draft is saved and sent to the Administrator for approval. |
| Trigger | The Visitor clicks “Submit Blog”. |
| Main Flow | <ol style="list-style-type: none"> 1. The Visitor writes the blog draft. 2. The Visitor clicks Submit. 3. The system saves the draft and notifies the Administrator. 4. The Administrator reviews the draft. 5. The Administrator approves and publishes it. 6. The use case ends. |
| Exceptions | <p>E1. Draft content is empty.</p> <p>E2. File upload fails.</p> |
| Includes | UC806: Reject Posts |
| Supporting Information | Content should meet the community guidelines. |
| Non-functional Requirements | <p>Performance: Autosaves every 30 seconds.</p> <p>Security: Only admins can publish posts.</p> |
| | |

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|------------------|---|
| Alternate Flow 1 | <p>“Rejected Draft”</p> <p>Trigger</p> <p>The Administrator rejects the draft.</p> <p>Step</p> <p>The system notifies the Visitor of the rejection.</p> <p>Alt Flow</p> <p>The Visitor can edit and resubmit.</p> <p>Post conditions</p> <p>The updated draft is stored again.</p> <p>Exceptions</p> <p>E1. Step 4 – Rejection message not delivered.</p> |
| Alternate Flow 2 | <p>“Anonymous Draft”</p> <p>Trigger</p> <p>The Visitor opts to submit anonymously.</p> <p>Step</p> <p>The system removes identifying details.</p> <p>Alt Flow</p> <p>The Administrator reviews and publishes as anonymous.</p> <p>Post conditions</p> <p>The post appears without author details.</p> <p>Exceptions</p> <p>E1. Step 2 – Name not stripped properly.</p> |

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|-----------------|---|
| Use Case ID | UC901: Contact Us Form Email Integration |
| User Story | As a Visitor, I want to send a message so that I can contact the organisation. |
| Goal | The Visitor submits the contact form and the message is emailed to the organisation. |
| Priority | Medium |
| Actors | Primary Actor: Visitor Secondary Actors: Enquiry Email Holder |
| Pre-conditions | The contact form is available online. |
| Post-conditions | The enquiry email is delivered. |
| Trigger | The Visitor clicks “Send” on the contact form. |
| Main Flow | <ol style="list-style-type: none"> 1. The Visitor enters their name, email, subject and message. 2. The Visitor clicks Send. 3. The system validates the fields. 4. The system sends the email. 5. The enquiry email holder receives the message. 6. The use case ends. |
| Exceptions | <p>E1. Invalid email format.</p> <p>E2. Email server unavailable.</p> |

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| Includes | UC902: Email Delivery |
| Supporting Information | The message must include sender name, email, subject, and body. |
| Non-functional Requirements | Performance: Delivered within 1 minute. Security: TLS-encrypted SMTP. |
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| Alternate Flow 1 | <p>“Invalid Email”</p> <p>Trigger The Visitor enters an invalid email address.</p> <p>Step The system shows an error message.</p> <p>Alt Flow The Visitor corrects it and resubmits.</p> <p>Post conditions The form submits successfully.</p> <p>Exceptions E1. Step 3 – Validation fails silently.</p> |
| Alternate Flow 2 | <p>“Email Server Down”</p> <p>Trigger The mail server is down.</p> <p>Step The system saves the message locally.</p> <p>Alt Flow The system retries sending later.</p> <p>Post conditions The message eventually sends.</p> <p>Exceptions E1. Step 4 – Retry queue is full and drops the message.</p> |

5. User Story Map



