Advanced Library Management System (AML)

# Project Overview:

The Advanced Media Library (AML) is a national network of library branches spread across all cities and towns in England, providing a wide range of media services, including books, journals, periodicals, CDs, DVDs, games, and multimedia titles. AML operates under a central governance structure with its headquarters located in London, which oversees budget management and overall strategy. Each city or town has a main branch, with larger cities like Sheffield and Manchester having multiple branches to meet the demand, while smaller towns may operate with just one. Within each city, resources such as books and media are shared among branches and managed by the primary branch to ensure efficient utilization.

AML seeks to develop a comprehensive, modern library management system to streamline its operations and enhance service delivery across various access points, including in-branch, online (web-mobile app), and telephone services. This new system must enable users to search, borrow, and return media seamlessly, regardless of location, while adhering to AML's operational structure. The system must be available 24/7 for online services, meeting strict accessibility standards like WCAG 2 to ensure usability for individuals with disabilities. In-branch and telephone services will follow standardized hours of operation, with branches generally open from 8:30 AM to 5:30 PM, Monday through Saturday, with one half-day per week and Sunday closures.

With England's population at approximately 55.98 million as of 2018, it is projected that at least 20% of the population will be active AML users, with a user base growth of 10% annually. To accommodate this expansion, AML’s system must be scalable and capable of handling increased demand without compromising performance or user experience. The project requires designing a system that addresses both functional and non-functional requirements, ensuring reliability, scalability, and ease of use, while also enabling efficient resource sharing among branches.

The development process will involve creating a proof of concept (PoC) to demonstrate core functionalities, with detailed logging of architectural and design decisions to provide clear justifications for chosen solutions. This PoC should assist the team to provide feedback for refinement before full-scale implementation. Continuous consultation with tutors, acting as AML representatives, will allow for the definition and refinement of system scope and objectives. Additionally, you may improve/add user stories to ensure that the final system meets AML’s comprehensive needs. The term 'media' will be used throughout the project to encompass all forms of library content, including books, periodicals, journals, and multimedia resources.

# Problem Statement:

# The Advanced Media Library (AML) faces challenges in managing its extensive media services, including books, journals, and multimedia, across multiple branches in England. Members struggle with inconsistent access to media resources, outdated subscription management, and limited payment flexibility. AML's manual procurement and inventory processes create inefficiencies, affecting both the library’s operations and the member experience.

# This issue impacts over 20% of England's population, who rely on AML for timely access to media and smooth library interactions, with an expected user base growth of 10% annually. Without a modern, integrated system, AML risks losing relevance and failing to meet the needs of both its members and staff.

# AML requires a digital solution that improves the member experience by enabling online registration, payment options, media reservations, and renewals. Additionally, the system must streamline branch operations, media procurement, and payment reconciliation to ensure scalability as AML continues to grow. Solving this problem will ensure AML's long-term success by enhancing member satisfaction, improving internal workflows, and ensuring the library’s media resources are effectively utilized across all branches. The solution must also adhere to accessibility standards and provide continuous availability to all users.

# Project Objectives

* To enhance members experience through the design and implementation of a centralised system to manage AML’s diverse media collection, including books, journals, periodicals, CDs/DVDs, and multimedia games, across all branches in England.
* To enable users to access library services via online platforms, telephone support, and in-branch interactions, providing a seamless, consistent experience across all channels.
* To Implement a scalable online system with continuous availability to meet user demand, while adhering to accessibility standards such as WCAG 2 to ensure inclusivity for all users.
* To Architect the system to handle the anticipated growth of AML’s user base, accommodating a 10% yearly increase while maintaining performance and reliability.
* To enable efficient resource sharing and management across branches within the same city or town, with branch-specific operational hours, while centralizing budget control at the London headquarters.
* To design the system to provide a user-friendly interface with easy navigation, supporting diverse user needs, including media reservations, borrowing, and returning both online and in-branch.
* To develop a system that integrates phone access in alignment with branch opening hours, allowing users to perform common operations like media inquiries and reservations.
* To offer easy to use payment system with flexible payments options.
* To streamline procurement and inventory management.
* To facilitate data-driven decisions.
* To adhere to relevant data privacy, security, and accessibility regulations applicable to digital library systems operating in the UK.

**Note**: The following are some of the AML system requirements. You can use them as is, make improvements, or add new ones as needed to ensure the quality of your architecture and proof-of-concept implementation. You should consider all requirements for your design, however for implementation, you need to only choose a subset of them for your sprints as explained in the assessment brief.

# User Roles

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| Role | Description |
| Library Member | General users who are registered with the library and use the system to access services.  **Responsibilities:**   * Search for media. * Borrow, reserve, and return media. * Manage personal profile (e.g., update contact details). * View borrowing history and account status (e.g., overdue items, fines). * Receive notifications about media availability and due dates. * Provide feedback or reviews on borrowed media (if applicable). |
| Guest | Non-registered users who visit the AML website or call in for information but have limited access.  **Responsibilities:**   * Browse and search the media catalogue. * View limited details on media availability (without ability to borrow or reserve). * Initiate the registration process. |
| Branch Librarian | Staff members at individual branches responsible for managing daily operations.  **Responsibilities:**   * Assist library members with borrowing and returning media in-branch. * Manage media inventory at the branch (update availability, stock media). * Oversee reservations and transfer requests for media between branches. * Resolve member queries and manage overdue fines. * Handle in-branch registrations and updates to member profiles. * Manage the physical branch environment (e.g., operational hours, notices). |
| Branch Manager | Oversees the operations of one or more branches within a city or town.  **Responsibilities:**   * Manage media inventory and resource sharing between branches in the same city. * Monitor and report on media usage, borrowing trends, and user activity. * Oversee branch budgets, allocating resources as needed. * Update branch operational hours and staff schedules. * Approve and manage inter-branch media transfers. |
| Call Centre Operator | Staff member handling phone-based inquiries and transactions, assisting users with AML services over the phone.  **Responsibilities:**   * Assist members with borrowing, reserving, and returning media over the phone. * Provide general information on media availability, branch hours, and services. * Update existing user profiles. * Handle user inquiries and help resolve issues related to their accounts. |
| Accountant | The AML Accountant is responsible for managing and overseeing all financial aspects of the Advanced Media Library's subscription and payment systems.  **Responsibilities:**   * Oversee and manage member subscription payments, including tracking payment statuses, processing subscription fees, and updating member accounts as needed. * Reconcile all member payments by ensuring that subscription amounts match received payments and identifying any discrepancies or outstanding balances. * Generate detailed financial reports on member payments, outstanding dues, and overall financial performance. Provide insights to AML management for budgeting and forecasting. * Make necessary adjustments to member subscriptions, such as updating fees or correcting payment errors, and ensure proper communication with members regarding any changes. * Ensure all financial transactions comply with internal policies and external regulations, such as accounting standards and legal requirements. |
| Purchase Manager | The AML Purchase Manager is responsible for managing and coordinating all procurement activities for the Advanced Media Library. This role involves sourcing, purchasing, and managing inventory for books, journals, periodicals, CDs/DVDs, games, and multimedia content across all branches.  **Responsibilities:**   * Oversee the sourcing and purchasing of media, including books, periodicals, multimedia, and games, ensuring that the library has a well-rounded and updated collection. * Establish and maintain strong relationships with vendors, publishers, and suppliers, negotiating favourable terms and contracts for media acquisition. * Monitor inventory levels across all branches, ensuring optimal stock availability, and coordinate the redistribution of resources among branches when necessary. * Collaborate with the AML accounting team and branch managers to align procurement decisions with the library's budget and financial planning. * Analyse trends in member borrowing and media usage to forecast future media demands, ensuring AML branches are well-stocked with popular and relevant content. * Regularly evaluate contracts with suppliers and manage renewals or new contracts based on performance, costs, and library needs. * Ensure all purchases comply with AML’s internal procurement policies, legal regulations, and any relevant licensing agreements for digital content. |
| AML Administrator | Central administrative role managing the overall library operations across England from the London HQ.  **Responsibilities:**   * Oversee all branches and ensure operational consistency. * Allocate budgets and resources across cities and branches. * Generate system-wide reports on media usage, finances, and member activity. * Manage high-level policies for branches, including operational guidelines and media acquisition. |
| System Administrator (Admin) | Responsible for the overall technical management of the AML system, ensuring it functions efficiently and securely.  **Responsibilities:**   * Manage user roles and permissions. * Ensure system uptime and scalability to handle user growth. * Monitor performance, resolve system issues, and address bugs. * Perform system updates and maintenance. * Ensure data security and GDPR compliance. |

# Personas

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| **Sarah Taylor** | |
| * Age: 34 * Occupation: Freelance Writer * Location: Leeds, UK * Library Member * Disability: Visually impaired (low vision) * Quote: “I love the convenience of borrowing audiobooks from AML online, but I need the site to be accessible” | |
| **Background** | Sarah is a freelance writer who loves staying informed through books, journals, and periodicals. She enjoys audiobooks and multimedia content, which are essential for her work and leisure. Due to her visual impairment, Sarah relies on assistive technology, such as screen readers and magnification tools, to navigate websites and access digital content. She prefers websites that are optimized for text-to-speech functionality, with clearly labelled buttons and accessible media descriptions.  Sarah has been a member of the Advanced Media Library (AML) for several years and regularly uses the online platform to browse, borrow, and reserve media. She values accessibility features that allow her to have a smooth user experience, both on her desktop and mobile devices.  Sarah needs full keyboard navigation so she can use shortcuts for accessing menus, media details, and forms. |
| **Goals** | * Easily search for and borrow accessible media. * Navigate the AML online platform seamlessly using her screen reader and magnification tools. * Receive timely notifications about media availability and due dates in a format that is easy for her to read. * Manage her library account independently and without needing to visit the branch. |
| **Frustrations** | * Websites that are not optimized for screen readers, making it difficult to browse and interact with content. * Lack of clear labelling on buttons and form fields, which causes confusion when using assistive technology. * Delays in receiving notifications about reserved media, forcing her to check manually and potentially miss out on items. |
| **Technology** | **Devices**: Laptop (with screen reader software), smartphone (with screen magnification features)  **Assistive Technology**: JAWS (Job Access With Speech) screen reader, built-in magnification on her phone and desktop |
| **Scenario** | Sarah logs into her AML account using her screen reader and starts her weekly routine of browsing for new audiobooks and large-print books. She searches for specific titles and adds them to her cart. She uses the website's voice-activated command system to complete her borrowing process. The system reads out each step as she reserves two books and opts for home delivery. Afterward, she receives an accessible notification confirming her reservation and delivery date, with large-text and screen-reader friendly details. |

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| **John Arrowsmith** | |
| * Age: 29 * Occupation: Software Developer * Location: Sheffield, UK * Library member * Quote: “I don't have time to visit the library often, so being able to manage my account and borrow media online or through the app is essential for me.” | |
| **Background** | John is a tech-savvy software developer who enjoys reading and staying up to date with the latest technology trends. He frequently borrows books, both physical and digital. As someone with a busy lifestyle, John appreciates quick access to media and the ability to manage his library account online without having to visit a branch frequently. He values convenience and efficiency in the services he uses.  John visits the AML website often to reserve books and borrow media, usually opting for e-books or audiobooks. He also uses the library's online system to check availability, renew loans, and keep track of his borrowing history. John is a frequent user of AML's mobile app and appreciates when services are optimized for mobile devices. |
| **Goals** | * Limited availability of certain books in the AML inventory. * Delays in media reservations, especially for popular titles. |
| **Frustrations** | * John often finds that the books he wants, especially new tech releases, are unavailable or have long waitlists * Popular books and audiobooks take too long to become available, disrupting John's reading schedule and forcing him to seek alternatives outside AML. * The online system does not always provide real-time availability updates, leading to instances where John thinks a book is available but later finds out it’s already reserved. |
| **Technology** | **Devices**: Laptop, smartphone (Android), tablet (iPad)  **Digital Habits:** John frequently uses the AML mobile app to browse media on the go. He values fast-loading websites and apps that offer a seamless user experience. He uses cloud-based reading platforms like Kindle and prefers systems that integrate with such services. |
| **Scenario** | John logs into his AML account via the mobile app during his commute to work. He quickly searches for a few new technology books that have been released recently, adds them to his Wishlist, and reserves an e-book version of one. Later in the week, he receives a notification that one of his reserved books is available at his local branch. He picks it up during his lunch break, after renewing another book online before its due date to avoid late fees. |

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| **Emily Carter** | |
| * Age: 42 * Occupation: Branch Librarian at AML (Bristol Main Branch) * Location: Bristol, UK * Quote: “I love helping members find the media they’re looking for, but managing inventory and coordinating with other branches can be challenging without the right tools.” | |
| **Background** | Emily has been working as a librarian for over 15 years and is passionate about connecting people with the right media resources. She manages the daily operations of the Bristol Main Branch of the Advanced Media Library (AML) and ensures that members have access to a wide range of media. Emily is responsible for organizing and maintaining media inventory, assisting members with borrowing and returns, and handling inquiries related to the library's services.  In addition to her passion for books, Emily is tech-savvy and enjoys using AML’s online system to manage media circulation, track overdue items, and communicate with members about their borrowing activities. She spends a significant portion of her day interacting with members in person, over the phone, and through email, helping them with media reservations, returns, and renewals. Emily is also responsible for ensuring that the branch runs smoothly, managing both the staff and budget, and ensuring that AML policies are followed. |
| **Goals** | * Efficiently manage media inventory and availability at the branch. * Assist library members with their borrowing and media needs both in person and through the online system. * Ensure smooth daily operations of the library branch and coordinate with other branches when needed. * Handle user inquiries and help resolve issues like overdue fines, lost media, or media requests. |
| **Frustrations** | * Media that is frequently misplaced or returned late, leading to delays in availability for other members. * Incomplete or unclear member profiles, making it difficult to assist with renewals or reservations. * Coordination challenges when transferring media between different branches. |
| **Technology** | **Devices**: Desktop computer at the library, tablet for managing media on-the-go.  **Digital Habits:** AML's media management system to check availability, renew media, and track overdue items. Emily frequently uses email and phone systems to stay in touch with other branches and members. |
| **Scenario** | On a typical day, Emily arrives at the library early to review the day's reservations and member requests. She checks the AML system to identify overdue media and sends out reminder emails to members. Throughout the day, Emily assists members with borrowing books, renewals, and media returns. When a member has an inquiry about a specific book not available at her branch, she requests it from a neighbouring branch in the city.  Emily also manages the branch’s media inventory, ensuring that newly acquired books and multimedia items are added to the system and properly displayed in the library. In the afternoon, she helps a member who is visually impaired by guiding them through the accessible options available in the online system and setting up a future audiobook reservation. |

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| **James Wilson** | |
| * Age: 30 * Occupation: Call Centre Operator at AML * Location: London, UK * Quote: “Helping members access their favourite books or solving technical issues is rewarding, but I need quick, real-time system updates to handle inquiries without delays.” | |
| **Background** | James works as a call centre operator at the Advanced Media Library’s (AML) London headquarters. He is responsible for handling inquiries from library members regarding media reservations, renewals, account details, and technical issues related to the online platform. James enjoys solving problems and providing excellent customer service, helping members navigate both the online system and in-branch services.  Throughout the day, James handles a wide range of calls—from simple requests to renew a book to more complex issues, such as problems accessing digital media or resolving overdue fines. His role requires him to have a strong understanding of AML’s services and processes, and he is skilled at quickly finding solutions through the library’s management system. |
| **Goals** | * Quickly assist AML members with their inquiries, such as renewing media or troubleshooting issues with the online system. * Provide accurate and clear information on media availability, branch hours, and AML policies. |
| **Frustrations** | * Difficulty in resolving issues when the system doesn’t provide real-time updates on media availability or member accounts. * Handling escalated calls from frustrated members when the system fails to support online reservations or renewals. * Delays when coordinating with specific branches to fulfil member requests or manage inter-branch media transfers. |
| **Technology** | **Devices**: Desktop computer with headset, phone system software, and access to AML's library management platform.  **Digital Habits:** James primarily uses the AML call centre dashboard to look up member accounts, check media availability, process renewals, and resolve account issues. He also uses a customer relationship management (CRM) system to log calls and track resolutions. |
| **Scenario** | James receives a call from a member who wants to renew a book that’s due in two days. He accesses the member’s account through the AML system and checks whether the media is eligible for renewal. Since the book is not reserved by another user, James processes the renewal and updates the member’s account with the new due date. He informs the member about the renewal and confirms via email. Later in the day, James assists another member with an issue accessing digital media, walking them through troubleshooting steps and reporting the issue to the IT team if unresolved. |

# User Stories

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| **Title**: User Registration | **Priority**: Must | **Estimate:** 5 points |
| As a guest user, I want to register online or at a branch, so that I can access AML’s services like borrowing books, reserving media, and checking my account. | | |
| **Acceptance Criteria**  **Given** I am on the registration page,  **When** I fill in my personal details (name, address, email, phone, etc.) and submit the form,  **Then** the system should:   * Verify the details and securely store my personal information in a secure, GDPR-compliant manner in the database, * Send a verification email to validate my email address, * Create my user account and allow me to log in upon successful verification, | | |

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| **Title**: Profile Management | **Priority**: Should | **Estimate:** 3 points |
| As a library member, I want to update my profile details (e.g., address, phone number, password, etc.), so that my account information is always accurate. | | |
| **Acceptance Criteria**  **Given** I am logged into my member account,  **When** I choose to update my profile information,  **Then** the system should:   * Validate the updated information, * Save the changes to my profile in the database, * Display a confirmation message indicating the profile has been updated. | | |

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| **Title**: Media Search | **Priority**: Must | **Estimate:** 5 points |
| As a library user, I want to search for media by title, author, or genre, so that I can easily find the media I am looking for. | | |
| **Acceptance Criteria**  **Given** I am on the search page,  **When** I enter search criteria such as title, author, or genre,  **Then** the system should:   * Offer autocomplete support, * Query the database for media that matches my search criteria, * Display the list of matching results with relevant details (availability, location, format), * Allow me to filter the search results based on additional options like publication year or media type. * Allow me to sort the search results based on media name, author, or publication year. | | |

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| **Title**: Media availability | **Priority**: Must | **Estimate:** 3 points |
| As a library user, I want to see the availability of media at specific branches, so that I can plan where to borrow or reserve the media | | |
| **Acceptance Criteria**  **Given** I have searched for media and selected a specific title,  **When** I view the media’s availability,  **Then** the system should:   * Query the inventory for all branches in my city, * Display the availability status (available, checked out, reserved) for each branch, * Allow me to request a transfer from another branch if the media is not available at my preferred branch. | | |

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| **Title**: Media Borrowing | **Priority**: Must | **Estimate:** 8 Points |
| As a library member, I want to borrow media either online or in a branch, so that I can read books, or use other media at home. | | |
| **Acceptance Criteria**  **Given** I have selected media to borrow,  **When** I confirm my borrowing request,  **Then** the system should:   * Check the availability of the media and update the status to "borrowed" in the database, * Allow me to choose between in-branch pickup or home delivery if borrowing online, * Send a confirmation via email/SMS with due date details and pickup/delivery instructions. | | |

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| **Title**: Media Return | **Priority**: Must | **Estimate:** 5 Points |
| As a library member, I want to return borrowed media at a branch or through a drop-off point, so that I can complete the borrowing process. | | |
| **Acceptance Criteria**  **Given** I am returning borrowed media,  **When** I return the media either at a branch or via a drop-off,  **Then** the system should:   * Mark the item as returned and update the inventory in the database, * Update my account to reflect the returned item, * Notify me of any overdue fines or remaining borrowed items. | | |

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| **Title**: Renew Borrowed Media | **Priority**: Must | **Estimate:** 3 Points |
| As a library member, I want to be able to renew my borrowed media so that I can extend the borrowing period and enjoy it for a longer time. | | |
| **Acceptance Criteria**  **Given** I am logged into my AML member account,  **When** I view my currently borrowed media,  **Then** the system should:   * Display an option to renew the borrowing period for eligible media, * Check the system for any restrictions (e.g., media has been reserved by another user or maximum renewal limit has been reached), * Update the new due date in my account once the renewal is successful, * Send a confirmation notification with the new return date, * Prevent renewal if the media is not eligible and display a clear message explaining the reason (e.g., media reserved by another user or reached maximum renewals). | | |

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| **Title**: Media Reservation | **Priority**: Should | | **Estimate:** 5 Points |
| As a library member, I want to reserve media that is currently unavailable, so that I can borrow it as soon as it becomes available. | | | |
| **Acceptance Criteria**  Given I have selected an unavailable media item,  When I choose to reserve the media,  Then the system should:   * Update the queue to add me to the waitlist for that media item, * Notify me when the media becomes available via email/SMS. | | | |
| **Title**: Cancel Reservation | | **Priority**: Should | **Estimate:** 3 Points |
| As a library member, I want to cancel a media reservation, so that I am no longer in the queue for the item. | | | |
| **Acceptance Criteria**  **Given** I have reserved a media item,  **When** I choose to cancel the reservation,  **Then** the system should:   * Remove me from the reservation queue, * Update the reservation list and release the media for the next user, * Confirm the cancellation and notify me via email/SMS. | | | |

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| **Title**: Multiple channels actions | **Priority**: Must | **Estimate:** 8 Points |
| As a library member, I want to perform actions such as borrowing, reserving, and checking my account across multiple channels (web, phone, in-branch), so that I can access library services conveniently. | | |
| **Acceptance Criteria**  **Given** I am using AML via web, phone, or in-branch,  **When** I perform actions like borrowing or reserving,  **Then** the system should:   * Reflect the same data across all platforms, * Allow me to seamlessly perform these actions regardless of the platform, * Update my account and media inventory in real-time. | | |

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| **Title**: Notifications | **Priority**: Should | **Estimate:** 5 Points |
| As a library member, I want to receive notifications for due dates, overdue items, and reserved media, so that I can manage my account and borrowed items efficiently. | | |
| **Acceptance Criteria**  **Given** I have borrowed or reserved media,  **When** the due date approaches or the media becomes available,  **Then** the system should:   * Send automated email/SMS reminders for due dates, overdue items, and reserved media, * Allow me to manage my notification preferences, * Update my account to reflect the media status. | | |

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| **Title**: Wishlist | **Priority**: Should | **Estimate:** 8 Points |
| As a library member, I want to be able to set my favourite media or create a Wishlist so that I can easily track it, reserve or borrow it in the future, or request it if it's not available in the AML inventory. | | |
| **Acceptance Criteria**  **Given** I am logged into my AML member account,  **When** I browse media and select an item to add to my Wishlist,  **Then** the system should:   * Allow me to add media to my Wishlist it or mark it as a favourite, * Display the media's availability status in real-time (available, on loan, or not in inventory), * Notify me when the media becomes available if it's currently unavailable, * Provide an option to request media that is not in the AML inventory, * Display a personalized Wishlist/favourite media section in my account for future reference, with options to reserve, borrow, or remove items from the list. | | |

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| **Title**: Manage Inventory | **Priority**: Must | **Estimate:** 5 Points |
| As a branch manager, I want to manage the media inventory across branches, so that I can ensure availability and stock management is efficient. | | |
| **Acceptance Criteria**  **Given** I am logged in as a branch manager,  **When** I view or modify the media inventory,  **Then** the system should:   * Display a real-time view of inventory across branches in my city, * Allow me to transfer media between branches and update the inventory status, * Reflect the changes system-wide for all users and branches. | | |

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| **Title**: Update Branch Operational Hours | **Priority**: Could | **Estimate:** 2 Points |
| As a branch manager, I want to update my branch’s operational hours, so that users are informed of any changes. | | |
| **Acceptance Criteria**  **Given** I am logged in as a branch manager,  **When** I update my branch’s operational hours (including half-day closures),  **Then** the system should:   * Save the new hours and reflect them in the database, * Update the online platform and phone system with the new operational times, * Notify users of schedule changes via the online system. | | |

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| **Title**: Generate Reports | **Priority**: Could | **Estimate:** 5 Points |
| As a branch manager, I want to generate reports on media usage and member activity at my branch, so that I can track borrowing trends and optimize stock. | | |
| **Acceptance Criteria**  **Given** I am logged in as a branch manager,  **When** I request reports on media usage,  **Then** the system should:   * Generate detailed reports on borrowing, reservations, and popular media at my branch, * Allow me to export reports in multiple formats (PDF, Excel), * Ensure data is updated in real-time based on branch activity. | | |

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| **Title**: System Scalability | **Priority**: Must | **Estimate:** 13 Points |
| As the system administrator, I want the system to scale to accommodate a 10% yearly increase in users, so that it can handle more traffic and user activity. | | |
| **Acceptance Criteria**  **Given** I am responsible for system scalability,  **When** the user base grows,  **Then** the system should:   * Automatically scale up its resources (e.g., server capacity, databases) to handle the increased load, * Maintain consistent performance without affecting user experience, * Ensure high availability and no downtime during scaling. | | |

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| **Title**: Monitor System | **Priority**: Should | **Estimate:** 8 Points |
| As an AML administrator, I want to monitor system performance and user activity, so that I can ensure the system operates smoothly and identify any issues. | | |
| **Acceptance Criteria**  **Given** I am logged in as an AML administrator,  **When** I monitor system performance or user activity,  **Then** the system should:   * Display real-time data on server load, uptime, and transaction success/failure rates, * Provide reports on user activity, media usage, and system errors, * Send alerts for critical issues such as downtime or unusual activity. | | |

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| **Title**: Discontinue Membership | **Priority**: Could | **Estimate:** 3 Points |
| As a member of AML, I want to be able to discontinue my membership so that I no longer have access to the services and am not charged for renewals. | | |
| **Acceptance Criteria**  **Given** I am logged into my AML member account,  **When** I navigate to the account settings page and choose to discontinue my membership,  **Then** the system should:   * Confirm that I want to discontinue my membership and explain the consequences (e.g., losing access to media, reservations, and account history), * Check that I have no outstanding borrowed media or unpaid fees, * Process the membership discontinuation, deactivating my account and preventing future logins, * Send a confirmation email that the membership has been discontinued, * Allow reactivation within 30 days, after which the account is permanently closed if no action is taken. | | |

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| **Title**: Choose Payment Mode | **Priority**: Should | **Estimate:** 5 Points |
| As a member of AML, I want to be able to pay my subscription fees using my preferred mode (Direct Debit, One-Off Payment, Credit Card, etc.) so that I can pay in a way that is convenient for me. | | |
| **Acceptance Criteria**  **Given** I am logged into my AML member account,  **When** I navigate to the payment section during subscription or renewal,  **Then** the system should:   * Present me with multiple payment options, including Direct Debit, One-Off Payment, and Credit Card, * Allow me to select my preferred payment method, * Process the payment securely using the selected method, * Confirm that the payment has been successfully processed, * Send a confirmation email or receipt, * Save the payment method for future renewals (if applicable), with an option to change or update it later. | | |

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| **Title**: Manage Subscription | **Priority**: Must | **Estimate:** 13 Points |
| As an accountant of AML, I want to be able to manage and review subscription amounts for all members so that I can reconcile payments and ensure accurate financial records. | | |
| **Acceptance Criteria**  **Given** I am logged into the AML system as an accountant,  **When** I navigate to the financial management section,  **Then** the system should:   * Display a list of all members with their current subscription amounts and payment history, * Allow me to update or adjust subscription amounts for individual members, if necessary, * Provide detailed reports showing total payments received, outstanding balances, and payment methods used, * Ensure that adjustments are reflected in the members' accounts and notifications are sent to them if their subscription amount changes, * Offer reconciliation tools to match payments with member subscriptions and identify discrepancies, * Allow exporting financial reports for further analysis or auditing. | | |

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| **Title**: Manage Media Procurement | **Priority**: Must | **Estimate:** 13 Points |
| As a Purchase Manager, I want to be able to create and track purchase orders for new media items (books, journals, multimedia, etc.) so that I can ensure AML branches have updated and relevant media for members. | | |
| **Acceptance Criteria**  **Given** I am logged into the procurement system,  **When** I navigate to the media procurement section and create a new purchase order,  **Then** the system should:   * Allow me to select media items from a vendor catalogue or manually input the details of the media to be ordered, * Provide fields for specifying quantities, delivery locations (branches), and delivery dates, * Generate a purchase order and store it in the system for tracking, * Notify relevant branch managers and vendors about the order, * Track the status of the purchase order from creation to delivery, * Allow me to view and update the order status as needed (e.g., delivered, in-progress, delayed). | | |