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1. Introduction

1.1 Purpose

The purpose of the document is to gather in one place all the functional and non-functional requirements which are going to affect and guide the development of the undertaken project. This document captures the finalized set of requirements and would be used for further refinement of the requirements and also for adding or removing more features in later updates. The document specifies the features that are going to be implemented as well as the features that are not going to be implemented in the development. The document also shows the consensus of all the stakeholders involved, regarding the requirements that should be included for development. Also, this document helps to specify requirements in more detail so that these can be easily mapped onto the architecture and design that would be built later on, also acts as input for system design, architecture, and developers' guidance and helps in testing. The intended audience consists of Project bidders, Project managers, Project Advisors, Team leaders, System designers, System Architects, Coders, Testers, Quality assurance teams, deployment engineers and other stakeholders.

1.2 Document Conventions

This document follows the standard SRS organizational structure as defined by IEEE 830-1993. The document is divided into different sections that outline the platform's intended use, user roles, features, and requirements. Textual conventions are as follows:

- Bold text indicates terms defined in the glossary.
- Italicized text signifies emphasis or references to other sections.
- [Brackets] contain editorial comments about the information that will be filled in at a later date.

1.3 Intended Audience and Reading Suggestions

The SRS is intended for the following audiences:

- **Project Stakeholders**: To provide them with a clear picture of what the system will be capable of doing.
- **Development Team**: To guide the system's architecture, design, and implementation.

- **Quality Assurance Team**: To understand the features and functionalities to be tested. Reading suggestions:
- Stakeholders should focus on Sections 1 and 2 to understand the system's scope and capabilities.
- Developers are advised to read the entire document with emphasis on Section 3, which details system features.
- Testers should concentrate on Section 3 for feature details and Section 5 for nonfunctional requirements.

1.4 Project Scope

The Triatlon platform is designed to support the banking sector by providing a structured learning environment for employees. The platform will feature a range of digital content accessible through various user roles: User, Creator, Department Manager, and Admin, each with specific permissions and capabilities. The system will include features for profile management, content categorization, and tracking of learning progress, among others. The scope of this project does not include external customer-facing services or financial transaction processing.

1.5 References

- IEEE Guide to Software Requirements Specifications (Std 830-1993)
- Triatlon Project Proposal Document
- Triatlon Figma Design Files

2. Overall Description

2.1 Product Perspective

Triatlon is an internal learning management platform tailored for the banking sector, facilitating the training and skill enhancement of bank employees and collaborators. It is designed as a standalone system, with capabilities for integration into existing banking infrastructure for user authentication and data exchange. The system's multi-tenancy architecture allows for separate instances for each collaborating entity, ensuring personalized experiences and data isolation.

2.2 Product Functions

The Triatlon platform offers a multifaceted set of functions tailored to different user roles within the banking sector:

Profile Management:

- All users can manage their personal profile information, which includes basic details, email, company affiliation, department, subscription plan, and status.
- Users can manage their password details, including updating old passwords and confirming new ones.

Admin Panel:

- Admins have the ability to add users with various roles and manage their profiles.
- Admins can create and manage departments, appointing and assigning Department Managers.
- They can add and manage collaborating companies, including offering and managing subscription plans.
- Admins have access to a dashboard for viewing statistics on content utilization, with filters for time periods such as quarterly and weekly.
- They can create and manage 'rings'—groups for masterclasses, including storing and managing masterclass information like name and description.
- Admins can attach and manage digital content to store objects/buckets, including details such as name, description, image, category, and associated rings.

Digital Content:

- Used across all user roles for accessing learning materials.
- Creators can add Masterclasses with details like name, short and full descriptions, image, category, visibility options, and department-specific visibility settings.
- They can upload and manage content in Masterclasses including images, videos, music, and documents which are stored on cloud buckets.
- A MediaPool is available for each Masterclass, where creators can manage media assets.

Masterclass and Content Management:

- The platform allows the viewing of Masterclasses and Learning Paths with visual overviews.
- Users receive notifications for new content, completion certificates, and points through email alerts.
- Content can be filtered by ID, title, and associated rings for easy navigation.

Department Manager Functions:

- Department Managers can select and assign relevant content to users within their department, customizing the learning experience for their team's needs.

Company Management:

- Admins can add, view, edit, and delete companies from the platform's list.
- They manage company information such as name, contact details, location, subscription details, and status.

User Management:

- Admins and Department Managers can manage users within the system, with functionalities to add, view, edit, and delete user profiles.
- User fields include name, email, associated companies, departments, subscription plans, and status.

Digital Asset/Content Library:

- Management of digital assets and content is available, with functionalities to add, view, update, and delete items.
- Asset/Content information management includes title, description, thumbnail, masterclass association, and category.

Customized Video Player:

- A customized video player is integrated for an enhanced user experience in content playback.

Program/Module Management:

- The system allows for the management of educational programs or modules, which can be structured into various learning paths.

Multi-Tenancy:

- The platform provides multi-tenant access, with separate databases and URLs for each collaborating entity to ensure data isolation and security.

Cross-Sector Implementation:

- While primarily designed for the banking sector, the platform's architecture allows for adaptation and use in various other sectors.

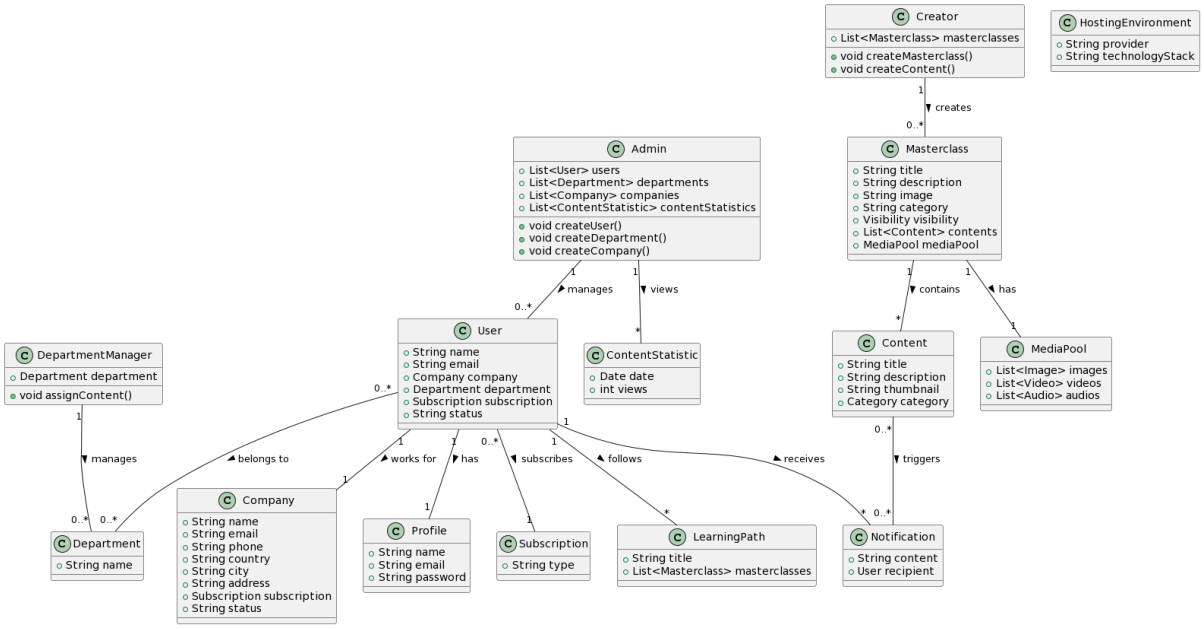

Figure 1: Domain Classes

2.3 User Classes and Characteristics

- **Users**: Bank employees who engage with the platform for learning.
- **Creators**: Individuals or teams responsible for generating and managing digital content.
- **Department Managers**: Personnel who oversee the learning content relevant to their departments.
- **Admins**: Users with full system privileges, capable of performing all system functions including user and content management.

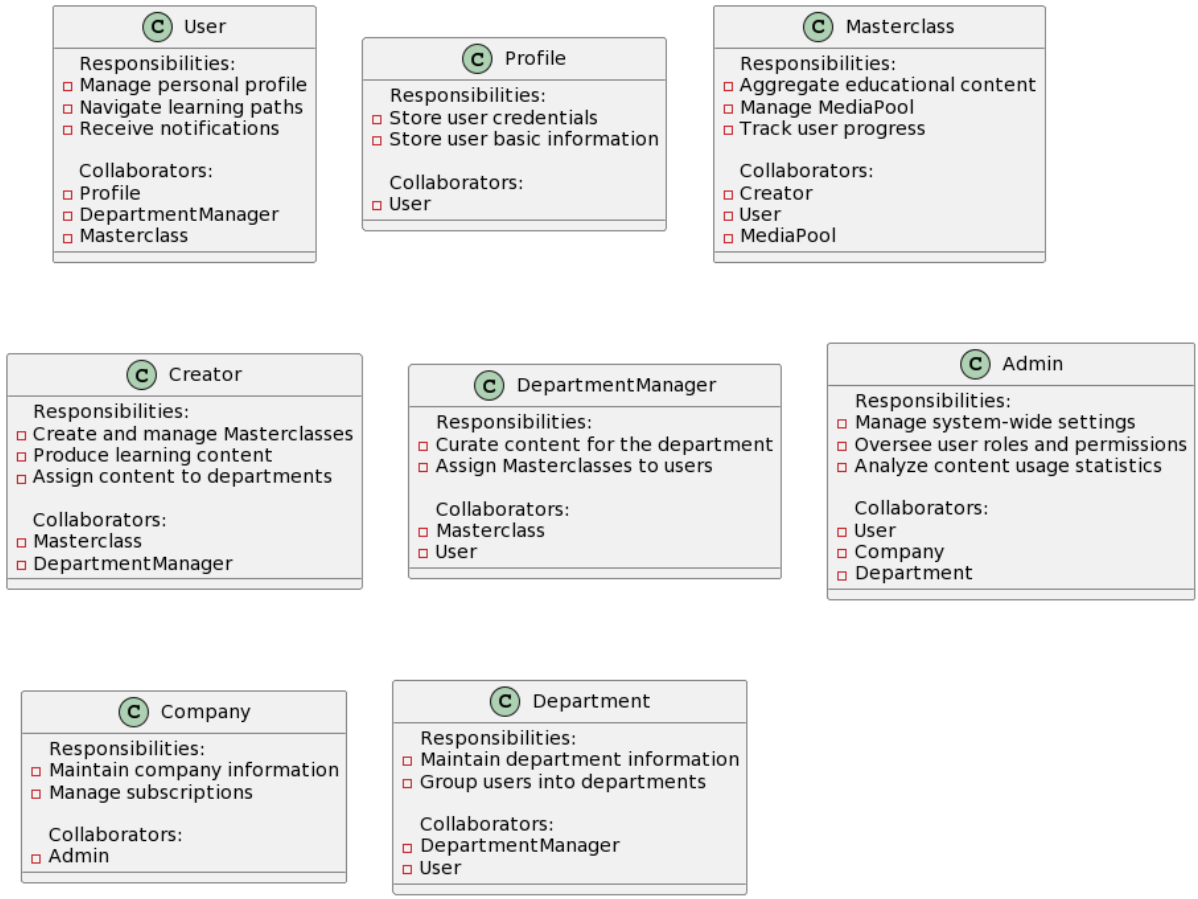

Figure 2: CRC cards

2.4 Operating Environment

The platform is web-based and accessible via standard web browsers. Hosted on DigitalOcean Droplets and Spaces, the backend is built on PHP and Laravel with PostgreSQL for database management. It is optimized for desktop and tablet devices for maximum accessibility.

2.5 Design and Implementation Constraints

The platform is restricted to internal use within banking organizations. It must adhere to stringent security standards, interface seamlessly with existing banking systems, and be scalable to accommodate a growing user base. Constraints include the predefined project timeline, budget, and the need for compatibility across multiple devices and browsers.

2.6 User Documentation

Comprehensive documentation, including user manuals, FAQs, and an online help system, will be available for all roles, detailing navigational procedures and providing assistance for common issues encountered.

2.7 Assumptions and Dependencies

The platform relies on:

- Continuous internet access.
- Integration with third-party services for cloud storage and content delivery.
- Compliance with the system's security protocols by all users.

3. System Features

3.1 User Profile Management

3.1.1. Description and Priority:

- Allows users to manage their personal and security information. This is a high-priority feature as it directly impacts user experience and security.

3.1.2. Stimulus/Response Sequences:

- Stimulus: User chooses to update their profile.
- Response: The system presents the current profile information and allows edits.

3.1.3. Functional Requirements:

- FR1.1: The system must allow users to view and update their current profile information.
- FR1.2: Users must be able to update their name, email, and department details.
- FR1.3: The system should ensure secure password management features.

3.2 Admin Panel

3.2.1. Description and Priority:

- *Central hub for administration tasks, essential for system integrity and management. This feature has a high priority.*

3.2.2. Stimulus/Response Sequences:

- *Stimulus: Admin logs into the Admin Panel.*
- *Response: The system provides options for user management, department management, and analytics.*

3.2.3. Functional Requirements:

- *FR2.1: Admins can create, edit, and delete user profiles.*
- *FR2.2: The system allows for the creation and assignment of departments.*
- *FR2.3: Admins can manage the list of companies and their subscription details.*
- *FR2.4: Provision of content engagement statistics with various filters.*

3.3. Masterclass Management

3.3.1. Description and Priority:

- Facilitates the creation and management of Masterclasses, a core component of the learning platform. This feature is of high priority.

3.3.2. Stimulus/Response Sequences:

- Stimulus: A Creator decides to add a new Masterclass.
- Response: The system allows the input of Masterclass details and content upload.

3.3.3. Functional Requirements:

- FR3.1: Creators can add new Masterclasses with relevant details.
- FR3.2: The system must allow Creators to define visibility settings for each Masterclass.
- FR3.3: Department Managers can assign Masterclasses to their department.

3.4. Digital Content Management

3.4.1. Description and Priority:

- This feature enables the addition and management of digital learning materials. It is critical for the platform's educational capabilities, thus having a high priority.

3.4.2. Stimulus/Response Sequences:

- Stimulus: Creator or Department Manager uploads or updates digital content.
- Response: The system stores and categorizes the content appropriately.

3.5.3. Functional Requirements:

- FR4.1: The system must support the uploading of various digital content formats (images, videos, documents).
- FR4.2: Creators can categorize and assign digital content to specific Masterclasses.
- FR4.3: The system should provide a searchable and filterable content library.

3.5. User Management

3.5.1. Description and Priority:

- Admins and Department Managers can manage user profiles. This is a critical function for maintaining the system's integrity and user hierarchy, thus a high priority.

3.5.2. Stimulus/Response Sequences:

- Stimulus: Admin adds or modifies a user profile.
- Response: The system updates its records with the new or modified user information.

3.5.3.Functional Requirements:

- FR5.1: Admins can create, edit, and delete user profiles within the system.
- FR5.2: Department Managers can manage user profiles within their respective departments.
- FR5.3: The system must enforce access control based on user roles.

3.6. Company and Department Configuration

3.6.1. Description and Priority:

- Admins can manage company and department details. Essential for organizing the platform’s structure, this feature has a high priority.

3.6.2. Stimulus/Response Sequences:

- Stimulus: Admin decides to add or edit a company or department.
- Response: The system allows creation, modification, or deletion of company or department information.

3.6.3. Functional Requirements:

- FR6.1: The system must allow the creation and editing of company profiles, including subscription management.

- FR6.2: Admins can create, edit, and assign departments within companies.
- FR6.3: The system should maintain a hierarchical structure of companies and their departments.

3.7. Learning Path Visualization

3.7.1. Description and Priority:

- This feature provides users with a visual representation of their learning progress. It is important for user engagement and tracking, thus holds a medium priority.

3.7.2. Stimulus/Response Sequences:

- Stimulus: User accesses their learning path.
- Response: The system displays the user's current progress in their assigned Masterclasses and modules.

3.7.3. Functional Requirements:

- FR7.1: Users should be able to view their progress in the learning path.
- FR7.2: The system must visually represent the completion status of each Masterclass.
- FR7.3: The system should allow users to navigate directly to their current or next learning module.

3.8. Notification System

3.8.1. Description and Priority:

- Essential for user engagement and communication, the notification system informs users about updates, achievements, and content recommendations. It has a medium priority.

3.8.2. Stimulus/Response Sequences:

- Stimulus: A new content item is available, or the user achieves a milestone.
- Response: The system sends a notification to the user's account and, optionally, their email.

3.8.3. Functional Requirements:

- FR8.1: The system must generate notifications for new content availability and learning milestones.
- FR8.2: Users can opt to receive email notifications in addition to in-platform alerts.

- FR8.3: The system should allow users to customize notification settings.

3.9. Content Categorization and Filtering

3.9.1. Description and Priority:

- This feature enables users to easily locate specific content within the platform. It is vital for user experience, thus holding a medium priority.

3.9.2. Stimulus/Response Sequences:

- Stimulus: User searches for or filters content.
- Response: The system displays content matching the search criteria or filter selections.

3.9.3. Functional Requirements:

- FR9.1: The system must provide options to categorize content (e.g., by topic, difficulty).
- FR9.2: Users should be able to filter content based on categories, Masterclass associations, and other criteria.
- FR9.3: The system must provide a search function for content discovery.

3.10. Multi-Tenancy Support

3.10.1. Description and Priority:

- This feature allows for distinct, isolated environments for different banking institutions, critical for data segregation and customization. It has a high priority.

3.10.2. Stimulus/Response Sequences:

- Stimulus: A new institution is onboarded to the platform.
- Response: The system sets up a separate instance with isolated data storage and customization options.

3.10.3. Functional Requirements:

- FR10.1: The system must support the creation of separate instances for each collaborator.
- FR10.2: Each instance should have isolated databases and storage.
- FR10.3: The system must allow customization of the interface and features for each tenant.

3.11. Cross-Sector Adaptability

3.11.1. Description and Priority:

- Enables the system to be adapted for use in sectors other than banking. This expandability feature has a medium priority.

3.11.2. Stimulus/Response Sequences:

- Stimulus: An organization from a non-banking sector chooses to use the platform.
- Response: The system adapts to suit the specific requirements of the new sector.

3.11.3. Functional Requirements:

- FR11.1: The system should be flexible to accommodate different sector-specific content and functionalities.
- FR11.2: The platform must allow for the modification of terminologies and functionalities to suit various sectors.

3.12 Digital Asset/Content Library Management

3.12.1. Description and Priority:

- A core component for organizing and accessing educational materials, this feature is of high priority.

3.12.2. Stimulus/Response Sequences:

- Stimulus: Creator or Department Manager uploads new content.
- Response: The system categorizes and stores the content in the digital library.

3.12.3. Functional Requirements:

- FR12.1: The platform must support adding, viewing, updating, and deleting digital assets.
- FR12.2: Asset information like title, description, thumbnail, and categorization must be manageable.
- FR12.3: The system should ensure easy retrieval and accessibility of digital assets.

3.13. Customized Video Player

3.13.1. Description and Priority:

- Provides an enhanced user experience for video-based learning content. It has a medium priority.

3.13.2. Stimulus/Response Sequences:

- Stimulus: User selects a video from the content library.
- Response: The system provides a customized video player for content viewing.

3.13.3. Functional Requirements:

- FR13.1: The video player must be compatible with various video formats.
- FR13.2: The player should offer standard video controls and be optimized for learning content.

3.14. Program and Module Management

3.14.1. Description and Priority:

- Allows administrators and creators to structure and manage educational programs and modules, a high-priority feature.

3.14.2. Stimulus/Response Sequences:

- Stimulus: A new educational program or module is developed.
- Response: The system enables the creation, categorization, and assignment of these programs and modules.

3.14.3. Functional Requirements:

- FR14.1: The platform must support the creation and management of various educational programs and modules.
- FR14.2: It should allow linking modules to specific Masterclasses or learning paths.

3.15. User Progress Tracking and Reporting

3.15.1. Description and Priority:

- Enables tracking and reporting of user progress through educational content, essential for learning outcomes assessment. This feature has a high priority.

3.15.2. Stimulus/Response Sequences:

- Stimulus: User completes a learning module or Masterclass.
- Response: The system updates and reports the user's progress.

3.15.3. Functional Requirements:

- FR15.1: The system must track user progress in real-time and store this data.
- FR15.2: Progress reports should be accessible to users and their managers.

3.16. Content Categorization and Search Functionality

3.16.1. Description and Priority:

- Facilitates easy navigation and access to content through categorization and search features. This is a high-priority feature for enhancing user experience.

3.16.2. Stimulus/Response Sequences:

- Stimulus: User searches for specific content or uses category filters.
- Response: The system displays relevant content based on the search criteria or selected categories.

3.16.3. Functional Requirements:

- FR16.1: The system must allow content to be categorized by various criteria (e.g., topic, difficulty level).
- FR16.2: Users should be able to search for content using keywords or phrases.
- FR16.3: The platform must provide filtering options to refine search results.

3.17 Security and Access Control

3.17.1. Description and Priority:

- Ensures the security of user data and controls access to various parts of the system based on user roles. This feature is critical and has a high priority.

3.17.2. Stimulus/Response Sequences:

- Stimulus: User attempts to access a restricted area of the platform.
- Response: The system checks user permissions and either grants access or denies it with an appropriate message.

3.17.3. Functional Requirements:

- FR17.1: The system must implement robust authentication mechanisms for user login.
- FR17.2: Access to content and functionalities should be based on user roles and permissions.

- FR17.3: The system should log and monitor access attempts for security auditing.

3.18 Scalability and Performance Optimization

3.18.1. Description and Priority:

- The platform should be scalable to accommodate a growing number of users and content, and optimized for high performance. This is a high-priority feature for system reliability.

3.18.2. Stimulus/Response Sequences:

- Stimulus: An increase in user traffic or content volume.
- Response: The system scales resources accordingly to maintain performance.

3.18.3. Functional Requirements:

- FR18.1: The architecture should support horizontal scaling to manage increased load.
- FR18.2: Performance optimization techniques must be implemented to ensure quick response times.
- FR18.3: The system should maintain high availability and reliability.

3.19 Reporting and Analytics

3.19.1. Description and Priority:

- Provides detailed analytics and reports on content usage, user progress, and system performance. This feature is of medium priority for informed decision-making.

3.19.2. Stimulus/Response Sequences:

- Stimulus: Admins or Department Managers request reports or analytics.
- Response: The system generates and provides the requested data.

3.19.3. Functional Requirements:

- FR19.1: The system must track and store data on user interactions and content usage.
- FR19.2: Administrators should have access to various reports and analytics tools.
- FR19.3: The platform must ensure data accuracy and relevancy in reports.

3.20 Feedback and Support System

3.20.1. Description and Priority:

- Allows users to provide feedback and seek support, which is essential for continuous improvement. This feature has a medium priority.

3.20.2. Stimulus/Response Sequences:

- Stimulus: User submits feedback or requests support.
- Response: The system logs the feedback/support request and notifies the appropriate team.

3.20.3. Functional Requirements:

- FR20.1: The system should provide a user-friendly interface for submitting feedback and support requests.
- FR20.2: Feedback and support requests must be logged and made accessible to the admin and support teams.
- FR20.3: The platform should provide automated responses or acknowledgments for received requests.

3.21. Company Information Management

3.21.1. Description and Priority:

- Allows admins to manage information about collaborating companies. This feature is important for maintaining accurate company profiles and subscriptions, making it a medium priority.

3.21.2. Stimulus/Response Sequences:

- Stimulus: Admin needs to add or update company information.
- Response: The system provides functionalities to add, view, edit, or delete company details.

3.21.3. Functional Requirements:

- FR21.1: The system must allow admins to manage company profiles, including adding, editing, and deleting companies.
- FR21.2: Each company profile should include details like name, email, phone, country, city, address, subscription, and status.

3.22. Masterclass Assignment and Management

3.22.1. Description and Priority:

- Enables Department Managers to assign Masterclasses to their departments and manage them. This feature is crucial for tailored learning experiences and holds a high priority.

3.22.2. Stimulus/Response Sequences:

- Stimulus: Department Manager selects Masterclasses for their department.
- Response: The system assigns the selected Masterclasses to the department and allows management of these classes.

3.22.3. Functional Requirements:

- FR22.1: Department Managers must be able to select and assign relevant Masterclasses to their department.
- FR22.2: The system should allow tracking and management of assigned Masterclasses within departments.

3.23 User Role and Access Management

3.23.1. Description and Priority:

- Critical for defining and enforcing access controls based on user roles. This feature ensures that users have appropriate permissions and is of high priority.

3.23.2. Stimulus/Response Sequences:

- Stimulus: Admin assigns or changes a user's role.
- Response: The system updates the user's access rights based on their new role.

3.23.3. Functional Requirements:

- FR23.1: The system must allow admins to assign and modify user roles.
- FR23.2: Access rights for each role should be predefined and enforced by the system.

3.24 Content Attachment and Storage

3.2.4.1. Description and Priority:

- Allows admins and creators to attach and manage digital content in the system. This is a high-priority feature for the core functionality of content dissemination.

3.24.2. Stimulus/Response Sequences:

- Stimulus: Admin or Creator attaches new content to the system.
- Response: The system stores the content in the appropriate digital buckets and categories.

3.24.3. Functional Requirements:

- FR24.1: The system must support attaching various types of content (images, videos, documents) to Masterclasses.
- FR24.2: Content storage and retrieval should be managed efficiently within the system.

3.25 Learning Content Visibility and Accessibility

3.25.1. Description and Priority:

- Manages the visibility and accessibility of learning content to different user groups. This feature is essential for ensuring relevant content reaches the appropriate audience, making it a high priority.

3.25.2. Stimulus/Response Sequences:

- Stimulus: Creator sets the visibility and accessibility parameters for a piece of content.
- Response: The system enforces these parameters, making the content available only to specified users or departments.

3.25.3. Functional Requirements:

- FR25.1: Creators should be able to set visibility settings for each piece of content.
- FR25.2: The system must enforce these visibility settings, restricting access accordingly.

3.26. Department-Specific Content Management

3.26.1. Description and Priority:

- Enables Department Managers to curate and manage content specifically for their departments, ensuring relevance and targeted learning. This feature has a medium priority.

3.26.2. Stimulus/Response Sequences:

- Stimulus: Department Manager selects or updates content for their department.

- Response: The system updates the content availability and access within the specific department.

3.26.3. Functional Requirements:

- FR26.1: Department Managers should be able to select and assign specific content to their department.
- FR26.2: The system must update and display the assigned content to relevant department users.

3.27 MediaPool Management

3.27.1. Description and Priority:

- Creators can manage a pool of media assets (images, videos, music) for each Masterclass, a medium-priority feature for enriching the learning content.

3.27.2. Stimulus/Response Sequences:

- Stimulus: Creator adds or updates media assets in a Masterclass.
- Response: The system organizes these assets in the MediaPool for easy access and use.

3.27.3. Functional Requirements:

- FR27.1: The system must allow creators to add, view, and manage media assets in the MediaPool.
- FR27.2: Media assets should be easily accessible and attachable to respective Masterclasses.

3.28 Interactive Learning Pathways

3.28.1. Description and Priority:

- Provides users with interactive and customizable learning paths, integrating various Masterclasses and content. This feature is important for enhancing the learning experience and holds a medium priority.

3.28.2. Stimulus/Response Sequences:

- Stimulus: User selects or customizes their learning path.
- Response: The system updates to reflect the chosen path and tracks the user's progress.

3.28.3. Functional Requirements:

- FR28.1: Users should be able to view and select different learning paths.
- FR28.2: The system must track and update the user's progress along their chosen path.

3.29 Analytics and Reporting Tools for Admins

3.29.1. Description and Priority:

- Admins have access to advanced analytics and reporting tools for content and user activity, a high-priority feature for informed decision-making and system optimization.

3.29.2. Stimulus/Response Sequences:

- Stimulus: Admin requests specific reports or analytics.
- Response: The system generates and provides detailed reports and data analytics.

3.29.3. Functional Requirements:

- FR29.1: The system must provide a comprehensive set of analytics tools for content usage and user engagement.
- FR29.2: Admins should be able to generate reports on various aspects of the platform's performance and usage.

3.30 Collaborative Content Development

3.30.1. Description and Priority:

- Allows Creators to collaboratively develop and refine learning content. This feature has a medium priority for promoting content quality and variety.

3.30.2. Stimulus/Response Sequences:

- Stimulus: Multiple Creators work together on content creation or refinement.
- Response: The system facilitates collaboration, allowing shared access and editing capabilities.

3.30.3. Functional Requirements:

- FR30.1: The platform should support collaborative content creation and editing.
- FR30.2: Changes and updates made by collaborators must be tracked and synchronized within the system.

4. External Interface Requirements

4.1 User Interfaces

Description: The user interface requirements cover the aspects of the system's interaction with users across various roles.

Requirements:

UI1.1: The interface must be intuitive and user-friendly, suitable for users with varying degrees of technical proficiency.

UI1.2: Consistent design and navigation across all modules, maintaining brand identity and ease of use.

UI1.3: Responsive design to ensure accessibility on desktops, laptops, and tablets.

UI1.4: Clear and concise display of learning paths, Masterclass details, and digital content for users.

UI1.5: Admin Panel with functionalities organized logically for easy administration.

UI1.6: Secure login interface with two-factor authentication for enhanced security.

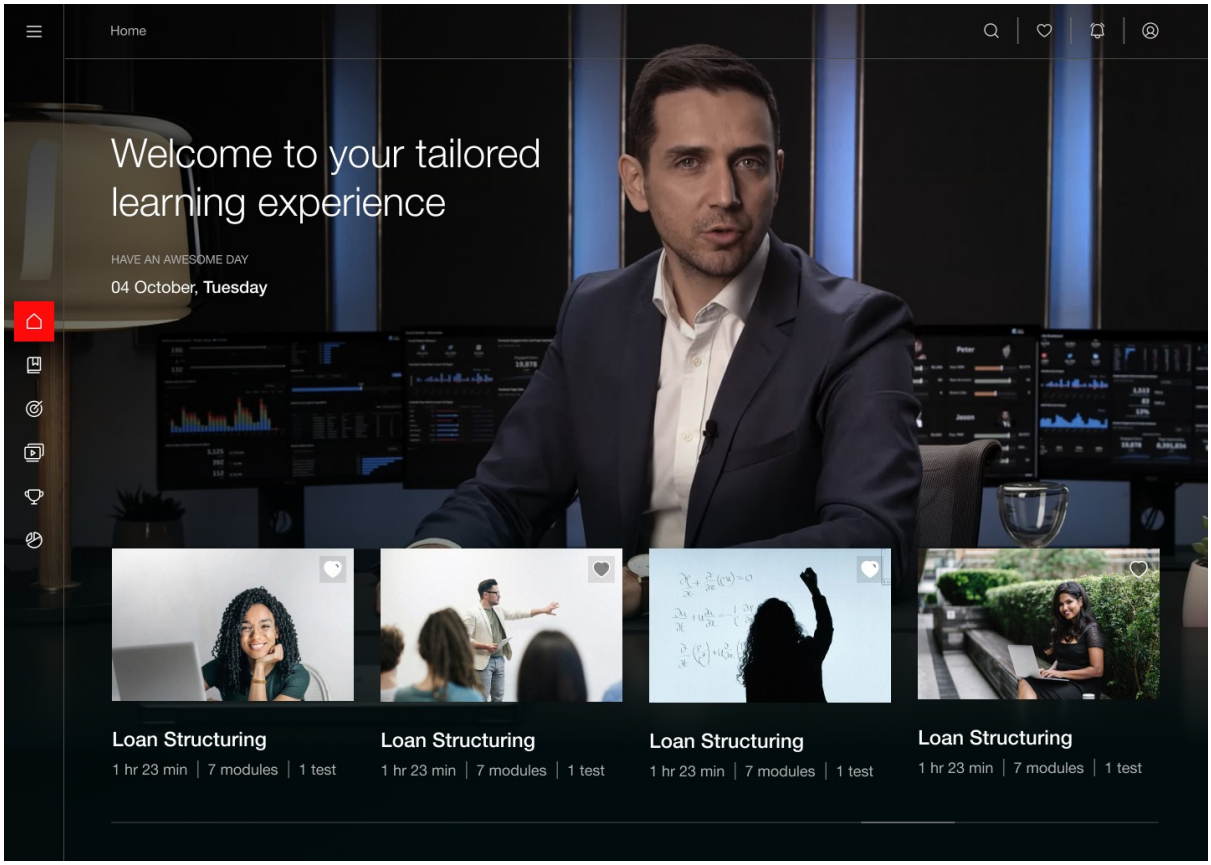

Figure 3: Home Page

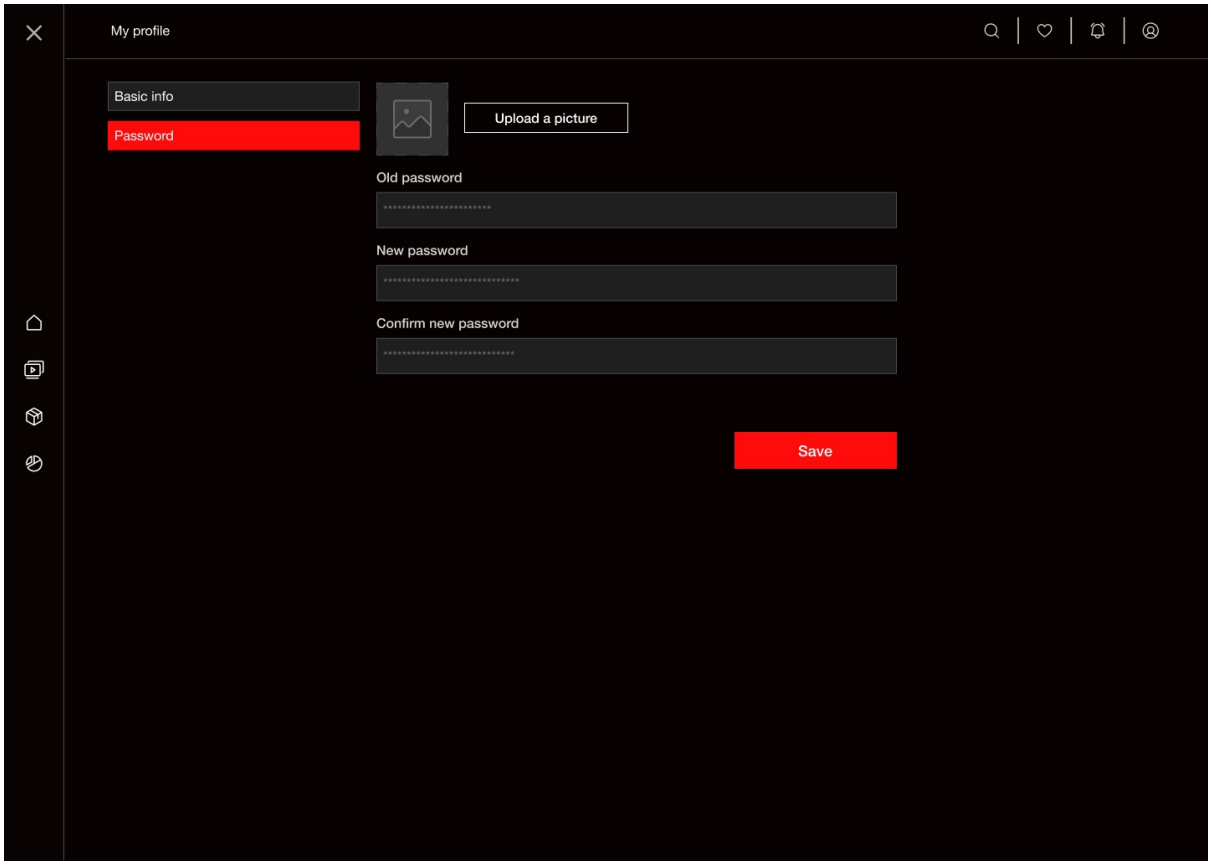

Figure 4: Basic Profile

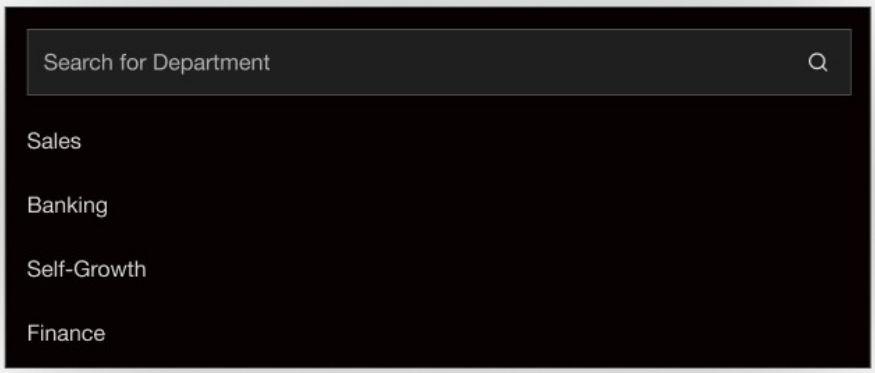

Figure 5: Departments

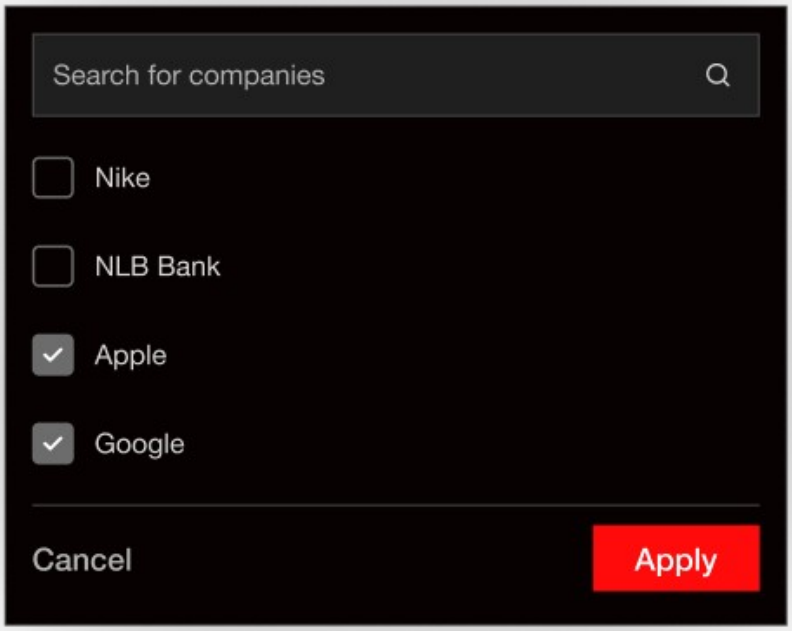

Figure 6:Companies

Figure 7: MasterClasses

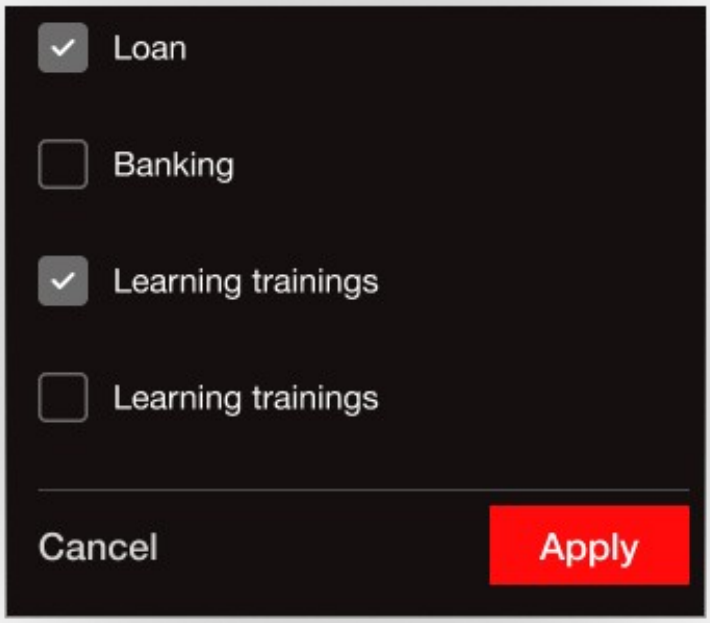

Figure 8: Filters

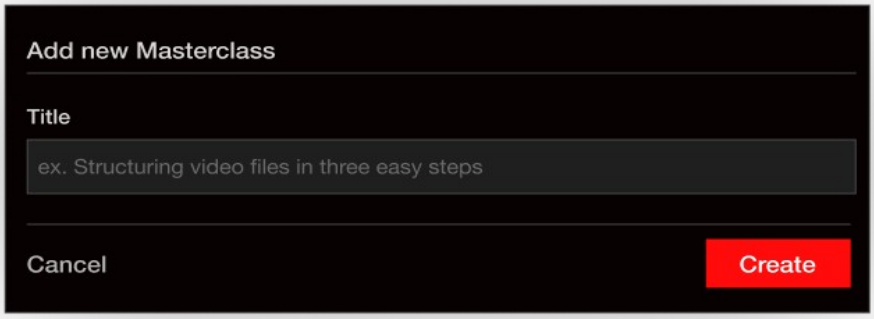

Figure 9: Add new masterclass

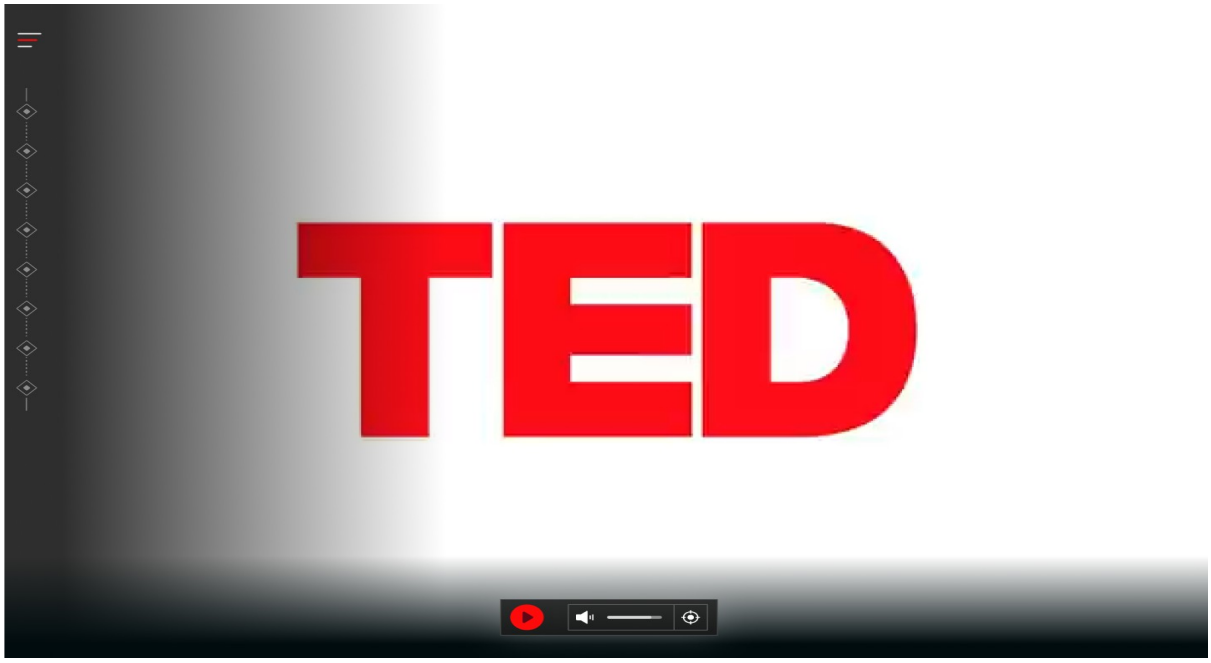

Figure 10: Video Player

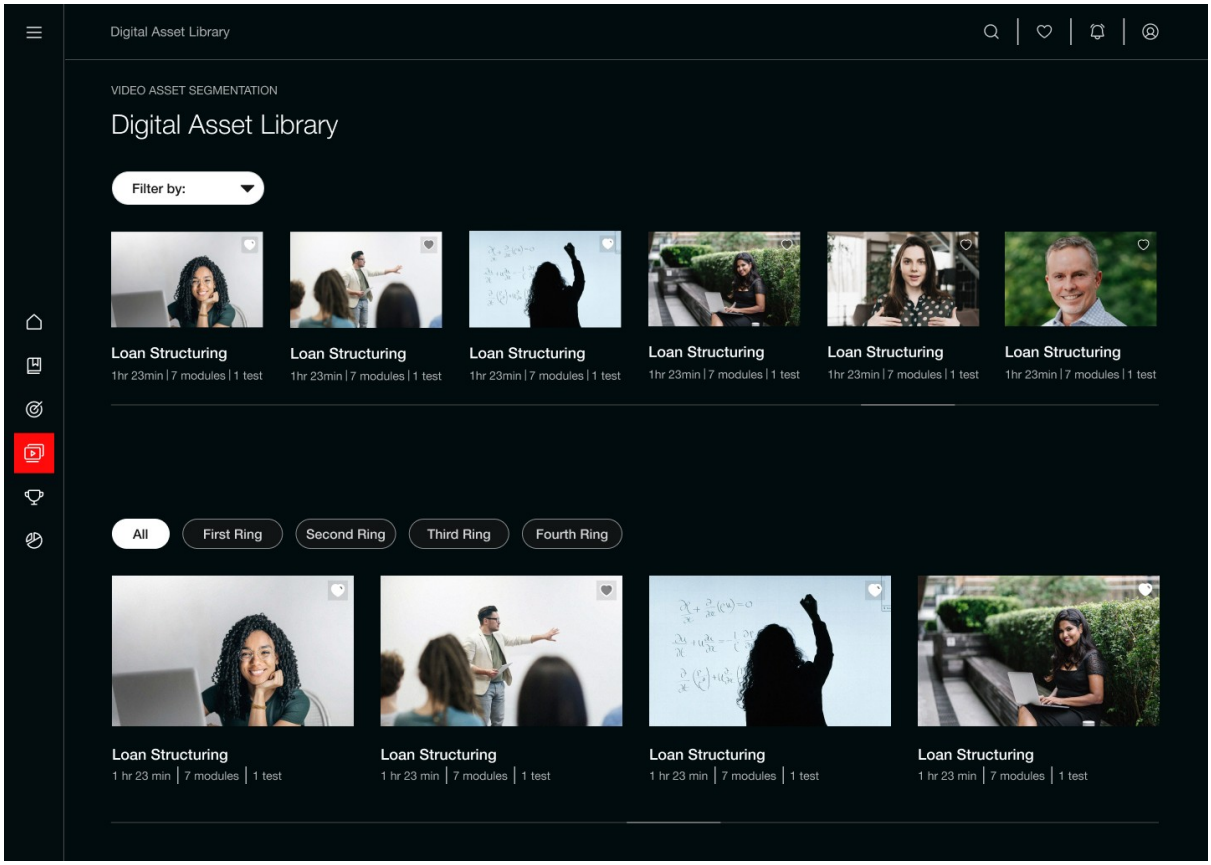

Figure 11: Digital Asset Library

4.2 Hardware Interfaces

Description: This section specifies the hardware requirements needed to support the system.

Requirements:

HW2.1: Compatibility with standard computing devices including desktops, laptops, and tablets.

HW2.2: No specialized hardware requirements for users beyond a standard web browser and internet access.

HW2.3: Servers hosting the platform should meet the requirements for storage, processing power, and network connectivity.

4.3 Software Interfaces

Description: Outlines the software entities with which the system interfaces.

Requirements:

SW3.1: Integration with DigitalOcean Droplets & DigitalOcean Spaces for hosting and storage.

SW3.2: Compatibility with various web browsers including Chrome, Firefox, Safari, and Edge.

SW3.3: Integration with PostgreSQL database for data storage and management.

SW3.4: The system should interface with standard email service providers for notification delivery.

SW3.5: Integration with third-party APIs for additional functionalities as required.

4.4 Communications Interfaces

Description: This section describes the requirements for the system's communication interfaces.

Requirements:

CI4.1: Secure HTTP/HTTPS protocol for all data transfer within the system.

CI4.2: Email communication should adhere to SMTP protocols.

CI4.3: The system should support API-based integration for data exchange with external systems.

5. Nonfunctional Requirements

5.1 Performance Requirements

Description: These requirements ensure the system's responsiveness, stability, and scalability.

Requirements:

PR1.1: The system should load any user interface within 2 seconds under standard operating conditions.

PR1.2: Capable of handling up to 10,000 simultaneous users without performance degradation.

PR1.3: System scalability to accommodate an increasing number of users and content.

5.2 Safety Requirements

Description: Safety requirements focus on minimizing risks associated with data and system operations.

Requirements:

SR2.1: Regular data backups to prevent data loss.

SR2.2: Implementation of failover mechanisms to maintain system availability.

SR2.3: Compliance with legal and regulatory standards for data protection and privacy.

5.3 Security Requirements

Description: Security requirements address the protection of data and system access.

Requirements:

SE3.1: Strict authentication and authorization controls for user access.

SE3.2: Encryption of sensitive data both at rest and in transit.

SE3.3: Regular security audits and updates to address emerging threats and vulnerabilities.

SE3.4: Two-factor authentication for accessing administrative functions.

5.4 Software Quality Attributes

Description: These attributes define the desired characteristics of the software in terms of reliability, maintainability, and usability.

Requirements:

QA4.1: The system should have a downtime of less than 0.1% outside of scheduled maintenance.

QA4.2: Modular design for easy maintainability and scalability.

QA4.3: The system should provide clear error messages and guidance for users to recover from errors.

QA4.4: Regular updates and patches to ensure continuous improvement in system quality.

5.5 Business Rules

Description: Business rules define the policies and regulations that govern the functioning of the system.

Requirements:

BR5.1: Compliance with banking sector regulations for digital learning platforms.

BR5.2: Adherence to intellectual property laws for digital content used in the system.

Implementation of data retention policies as per legal requirements.

6. Accessibility Requirements

Description: Focus on making the system usable for people with a wide range of abilities and disabilities.

Requirements:

AR6.1: Compliance with Web Content Accessibility Guidelines (WCAG) for users with disabilities.

AR6.2: The system should provide features like screen reader compatibility, text-to-speech, and adjustable text sizes.

Appendix A: Glossary

Description: This section provides definitions of technical terms, acronyms, and abbreviations used throughout the document to ensure clarity and understanding for all stakeholders.

Admin: A user role with complete control over the system, including user management, content approval, and system settings.

API (Application Programming Interface): A set of protocols and tools for building software applications, allowing different software systems to communicate.

Authentication: The process of verifying the identity of a user, typically through login credentials.

Authorization: The process of granting or denying specific access rights to a user after they are authenticated.

Class Diagram: A type of static structure diagram in UML that describes the structure of a system by showing its classes, attributes, operations, and the relationships among objects.

Creator: A user role responsible for creating and managing digital learning content within the platform.

Department Manager: A user role tasked with managing the learning content for their specific department.

Digital Content: Educational material in various digital formats, such as text, images, videos, and audio files.

Entity-Relationship Diagram (ERD): A data modeling technique that graphically illustrates an information system's entities and the relationships between them.

HTTPS (Hypertext Transfer Protocol Secure): An extension of HTTP used for secure communication over a computer network.

Learning Path: A structured sequence of educational content and activities designed to achieve specific learning outcomes.

Masterclass: A specific category or module of learning content within the platform.

MediaPool: A collection of media assets (images, videos, music) associated with a particular Masterclass.

Multi-Tenancy: An architecture where a single instance of the software serves multiple tenants (customers), keeping their data separate and secure.

PostgreSQL: An open-source relational database management system.

Responsive Design: A design approach that ensures web content adapts smoothly to various screen sizes and devices.

SRS (Software Requirements Specification): A document that describes what the software will do and how it will be expected to perform.

Stakeholder: An individual, group, or organization that has an interest in or is affected by the outcome of a project.

Two-Factor Authentication: An additional security layer requiring not only a password and username but also something that only the user has on them, e.g., a physical token.

UML (Unified Modeling Language): A standardized modeling language used in software engineering to provide a way to visualize the design of a system.

User: Any bank employee who interacts with the platform, primarily for learning purposes.

Web Content Accessibility Guidelines (WCAG): A set of guidelines for making web content more accessible, particularly for people with disabilities.

Appendix B: Analysis Models

Description: Contains various models used in the analysis phase, including UML diagrams, data flow diagrams, and other relevant models that provide a visual representation of system components and interactions.

UML Diagrams: Include class diagrams, use case diagrams, and sequence diagrams that depict the system's structure and behavior.

Data Flow Diagrams: Show how data moves through the system, illustrating processes, data stores, and data flows.

Entity-Relationship Diagrams: Display the relationships between different data entities in the system.

Appendix C: To Be Determined List

Description: A list of items that are yet to be decided or clarified. This list is essential for tracking open questions and issues that need resolution during the development process.

Open Technical Questions: Any technical aspects that are still under consideration or require further research.

Pending Stakeholder Decisions: Decisions or approvals that are awaited from project stakeholders.

Future Enhancements: Features or improvements suggested for future versions of the system but not included in the current scope.