**1. Actors**

* **Learners/Students**: Primary users who access the platform to learn and interact with course materials.
* **Instructors/Teachers**: Users responsible for creating and managing courses, as well as evaluating student work.
* **Administrators**: Users responsible for maintaining and managing the platform, including user accounts, technical issues, and system-wide configurations.

**2. Functional Requirements**

* **Course Progress**: Allows learners to monitor their progress, view completed and pending lectures and tasks.
* **User Dashboard**: Provides a centralized hub for learners to access course progress, upcoming tasks, and announcements.
* **Cloud Storage**: Enables learners to upload, store, and retrieve learning materials.
* **Multi-language Support**: Allows users to access content in their preferred language.
* **Communication Features**: Provides tools for real-time interaction with instructors and peers.
* **User-Friendly Interface**: Ensures the platform is easy to navigate and understand.
* **Accessible Interface**: Offers accessibility features for users with disabilities.
* **Hot Keys/Quick Access**: Provides shortcuts to frequently used features.
* **Labels and Categorization/Platform Organization**: Organizes content in a structured manner.
* **Self-Enrollment**: Allows learners to register for courses independently.
* **Course Creation Tools**: Empowers instructors to create and customize courses.
* **SCORM/XAPI/Interoperability Conformance**: Enables data sharing and compatibility with other systems.
* **Add Material/Reuse Material**: Allows instructors to upload and share resources.
* **Tasks/Assignments**: Supports task submission and file uploads.
* **Writing/Post Editor Page**: Allows for content creation with various media types.
* **Quiz Assignments**: Permits the creation and management of quizzes and assessments.
* **Mobile App Availability**: Provides a mobile app for on-the-go learning.
* **Fast Performance**: Ensures swift platform response and minimal delays.
* **Blog per Course**: Facilitates communication and interaction within courses.
* **Dark Mode Option**: Offers an alternative color scheme for reduced eye strain.
* **YouTube Video Integration**: Allows the inclusion of YouTube videos in course materials.
* **Enhanced Search Tools**: Provides advanced search and filtering options.
* **Customizable Settings**: Allows users to personalize their platform experience.
* **Direct File Downloads**: Enables learners to download course materials.
* **Tutorials**: Offers video tutorials for platform usage.
* **Improved Notifications**: Ensures timely updates and customizable notifications.
* **Efficient File Management**: Supports the organization, upload, and sharing of resources.
* **Integrated External Resources**: Links to external learning materials.
* **Assessment Tools/Teacher Dashboard**: Facilitates the creation and evaluation of assessments.
* **Feedback Mechanisms**: Allows learners to provide input and feedback.
* **In-depth Analytics**: Provides detailed insights into learner progress.
* **Live Meeting Functionality**: Enables real-time virtual interactions.
* **Personalized Learning Paths**: Customizes curriculum based on learner preferences.
* **Collaborative Features**: Supports group work and interactions among learners.

**3. Requirements to Start**

* Develop a user-friendly interface.
* Implement cloud storage capabilities.
* Integrate communication features.
* Ensure multi-language support.
* Set up a course creation system.
* Establish a user account management system.
* Implement accessible features for users with disabilities.
* Develop efficient file management tools.
* Create a platform organization structure.
* Enable progress tracking and reporting.
* Implement notification systems.

**4. End State**

* The E-learning platform should be a fully functional system that provides a seamless and user-friendly learning experience.
* Learners should be able to easily access and navigate courses, communicate with instructors and peers, track their progress, and access learning materials from various devices.
* Instructors should have the tools to create and manage courses, assess student work, and engage with learners effectively.
* Administrators should be able to maintain the platform, manage user accounts, and ensure the platform's accessibility and performance.
* The platform should support a diverse range of learning materials, including text, multimedia, quizzes, and assignments.
* The end state should reflect the vision of fostering a sense of accomplishment, accountability, and inclusivity among learners while providing tools for instructors to deliver effective education.

**5. Description**

* **Course Progress**: This feature allows learners to monitor their progress by displaying completed and pending lectures and tasks. Learners can visualize their progress, set goals, and celebrate achievements, enhancing their sense of accomplishment and accountability.
* **User Dashboard**: The user dashboard serves as a centralized hub where learners can access course progress, upcoming tasks, and announcements. Visual representations of achievements and milestones provide learners with a comprehensive overview of their learning journey, promoting transparency and accountability.
* **Cloud Storage**: Cloud storage facilitates seamless access to learning materials from various devices. Learners can effortlessly upload, store, and retrieve files, ensuring their educational resources are easily accessible and organized, promoting a borderless learning experience.
* **Multi-language Support**: The platform supports multiple languages, allowing each student to learn in their preferred language and change website and application text direction for ease of use.
* **Communication Features**: Communication features provide learners with tools to interact with instructors and peers, including real-time messaging, discussion forums, and group chats. These features foster collaborative learning, facilitate knowledge sharing, and strengthen the learning community.
* **User-Friendly Interface**: A user-friendly interface ensures that the platform is easy to navigate and understand. Intuitive design, clear labels, and an organized layout contribute to a positive user experience, minimizing frustration and enhancing engagement.
* **Accessible Interface**: The platform offers accessibility features such as changing font size, contrast adjustment, audio alerts, hotkeys, and sign language interpreters to ensure that users with disabilities can access the learning material with minimal hurdles.
* **Hot Keys/Quick Access**: Quick access to tools offers learners shortcuts to frequently used features, optimizing efficiency and encouraging learners to focus on their studies without unnecessary delays.
* **Labels and Categorization/Platform Organization**: Platform organization involves categorizing content and resources in a structured manner with clear labels, nested folders, and efficient tagging systems, enabling learners to find and access materials with ease.
* **Self-Enrollment**: Self-enrollment empowers learners to register for courses independently, fostering a sense of ownership over their learning journey.
* **Course Creation Tools**: Instructors can create and structure educational content with customizable course creation tools, tailoring materials to the specific needs and preferences of their learners.
* **SCORM/XAPI/Interoperability Conformance**: The platform applies XAPI standards to allow flexibility of data and data sharing between Learning Management Systems (LMS), facilitating easier course creation and content sharing.
* **Add Material/Reuse Material**: The "Add Material" feature allows instructors to upload and share course resources, enriching the learning journey with diverse resources.
* **Tasks/Assignments**: Task submission enables learners to upload assignments and projects for evaluation, simplifying the assessment cycle for learners and instructors alike.
* **Writing/Post Editor Page**: A special page allows teachers and students to create posts with various media elements, providing more customization options.
* **Quiz Assignments**: Teachers can upload quizzes with multiple question types and grading options, notifying students of course quizzes.
* **Mobile App Availability**: Mobile app availability ensures that learners can access the platform on their smartphones and tablets, accommodating busy schedules and modern lifestyles.
* **Fast Performance**: Fast performance ensures that the platform responds promptly to user interactions, supporting a seamless learning flow.
* **Blog per Course**: A blog feature allows commenting on teacher posts and allows students to make their own posts in each course, encouraging student interaction and community-building.
* **Dark Mode Option**: A dark mode option provides an alternative color scheme for reduced eye strain in low-light environments, enhancing user comfort and accessibility.
* **YouTube Video Integration**: Teachers can embed YouTube videos into course materials for additional resources.
* **Enhanced Search Tools**: Enhanced search tools enable learners to locate specific content quickly through advanced filters and accurate keyword recognition.
* **Customizable Settings**: Customizable settings empower learners to personalize their platform experience, including themes, layout, notifications, and language preferences.
* **Direct File Downloads**: Learners can easily download course materials for convenient offline access.
* **Tutorials**: Video tutorials using tools like "scribe" help students quickly familiarize themselves with the system.
* **Improved Notifications**: Improved notification systems ensure learners receive timely updates about assignments, deadlines, and announcements, enhancing communication and task management.
* **Efficient File Management**: Efficient file management tools enable seamless organization, upload, and sharing of resources.
* **Integrated External Resources**: Integration with external resources allows access to additional learning materials from reputable sources, enhancing the depth and breadth of knowledge.
* **Assessment Tools/Teacher Dashboard**: Assessment tools enable instructors to design and administer quizzes, assignments, and assessments with automated grading, feedback mechanisms, and performance analytics.
* **Feedback Mechanisms**: Feedback mechanisms allow learners to provide input on courses, content, and the platform itself, promoting user satisfaction and continuous improvement.
* **In-depth Analytics**: In-depth analytics provide detailed insights into learner progress, engagement, and performance through robust data visualization and reporting tools.
* **Live Meeting Functionality**: Live meeting functionality enables real-time virtual interactions among learners, instructors, and peers, fostering dynamic discussions and immediate feedback.
* **Personalized Learning Paths**: Personalized learning paths allow learners to customize their curriculum based on their goals, preferences, and skill levels, supporting self-directed learning.
* **Collaborative Features**: Collaborative features facilitate group work and peer interaction, including shared workspaces, collaborative editing, and group discussions, promoting teamwork and knowledge exchange.