GamifyLearnHub

System Requirements Document

1. Introduction

1.1 System Overview

A Learning Management System (LMS) is a web-based technology that offers a platform for the delivery, management, and tracking of training programs. LMS platforms are widely used in various fields, including universities, schools, businesses, and organizations, to facilitate the administration and delivery of learning.

The system consists of the following main parts:

1. User Authentication
2. Courses Management
3. Assessment and Evaluation
4. Progress Tracking and Reporting
5. Generate Certificates and Padge

2. Key Features

GamifyLearnHub website offers several key features to enhance the learning experience:

1. User Authentication

The system contains three roles, which are instructor, learner, and admin. The admin adds all users to the system and defines their roles.

2. Courses Management

The admin adds the educational period, plan, program, course, and section, and determines the appropriate sequence for them.

3. Assessment and Evaluation

The instructor creates quizzes, assessments and exams, and the learner can access them and submit his solutions. The instructor creates quizzes, assessments and exams for each level.

4. Progress Tracking and Reporting

The learner receives a report containing his grades obtained during one course and a group of courses. It provides the instructor with a report for the learners in each section, and it also provides the admin with a report on the learner performance in all courses and a report for each section.

5. Generate Certificates and Badge

After the learner succeeds in the course, the system automatically generates a certificate and badge, then send an email to each learner.

3. User Roles

In the GamifyLearnHub system, there are several user roles, each with specific permissions and responsibilities. Here are the main user roles:

1. **Learner User:**
   - ❖ Download the content of the lecture (PPT slide and PDF).
   - ❖ Submit the quizzes, assignments and exams.
   - ❖ Earn points for completing tasks, quizzes, or modules
   - ❖ Download reports.
   - ❖ Download a certificate and badge.

2. **Instructor User:**
   - ❖ Upload the course materials.
   - ❖ CRUD quizzes assignments and exams for each level.
   - ❖ Integrate challenges or quests that require learners to apply knowledge in real-world scenarios.
   - ❖ Provide continuous feedback on progress and performance.
   - ❖ Display the performance and progress of users on the leaderboard.
   - ❖ Download reports.

3. **Admin User:**
   - ❖ CRUD Users and determine user role.
   - ❖ CRUD learning period, program, plan, course and sections.
   - ❖ Add learners to the sections.
   - ❖ Generate a certificate and badge for learners.
   - ❖ Download a certificate and badge.
   - ❖ Download reports.

4. **System:**
   - ❖ Each level represents an increased level of difficulty or expertise.
   - ❖ Accumulated points can lead to rewards, badges, or other virtual incentives.
   - ❖ The learner moves from the current challenge to the next challenge when he successfully completes the challenge.
   - ❖ Send an email for registration, badge and certificates.

4. System Architecture

An online store website typically consists of three main components:

1. Frontend

The front end is the user interface where users interact. It is responsible for rendering web pages, handling user input, and providing an intuitive learning experience. Angular is a key technology used in the front end.

2. Backend

The backend serves as the central control system of the website. It handles business logic and communicates with external services. Common technologies used in the backend include C# language, Web API, and APIs for external services.

3. Database

The database stores crucial information such as user data, product details, order history, and inventory. Used Oracle Database for structured data storage.

5. Rules

❖ Keep the rules of the clean code.

❖ Keep the rules of the business.

❖ Don't forget to design the logout button.

❖ Keep the project name.

6. Project Upload Requirements

❖ Upload your project code.

❖ Upload Project Presentation (Advertising presentation).

❖ Upload Project Video.

7. Project Evaluation

❖ 15% Project video and presentation.

❖ 35% Interfaces Design.

❖ 50% Code Functionality.

8. Project Duration

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