

E-Learning Management System

Supervisor: *LÊ THANH NHÂN*

Semester: *II*

Batch No: *T2.2410.E0*

Group No: *03*

Order:	Full name	Roll No.
1.	<i>Lê Thị Hạnh Mai</i>	<i>Student1614875</i>
2.	<i>Cổng Hiến Khoa</i>	<i>Student1614878</i>
3.	<i>Dương Minh Mẫn</i>	<i>Student1614886</i>

Month:08 Year:2025

This is to certify that

Ms. **Lê Thị Hạnh Mai**

Mr. **Công Hiến Khoa**

Mr. **Dương Minh Mẫn**

Have successfully Designed & Developed

E-Learning Management System

Submitted by:

Date Of Issue:

Authorized Signature:

Content

Content

Acknowledge

Synopsis

Review1 (điền số trang theo thực tế)

Review2 (điền số trang theo thực tế)

Review3 (điền số trang theo thực tế)

Testting Document (điền số trang theo thực tế)

Final Checklist (điền số trang theo thực tế)

Tasksheet (điền số trang theo thực tế)

Acknowledge

As we understand, the eProject is a structured step-by-step learning experience that simulates both classroom and lab-based training into real-world application. It provides an electronic, hands-on platform where learners can practice systematically, apply concepts gradually, and develop practical skills that lead to complete and functional applications. Through this process, students are encouraged to build larger, more robust systems, make use of essential utilities, and integrate unified code effectively. The phased implementation enhances knowledge, adds value, and strengthens confidence by engaging learners in realistic scenarios.

Furthermore, the eProject emphasizes the importance of real-life projects, allowing students to gain practical exposure and prepare for professional challenges. It also fosters creativity and problem-solving by guiding learners to design applications that are more useful and adaptable to actual needs. Continuous mentoring, including support through email, ensures that students are not only guided but also motivated throughout the journey.

We would like to sincerely thank our professor and fellow classmates for their kind guidance and support during the project. Despite some mistakes made along the way, these experiences have become valuable lessons that help us improve and broaden our knowledge in web development. This project has given us greater confidence, practical skills, and motivation to keep learning.

With the lessons and experience gained, we are determined to continue our journey of growth and strive for future success.

Yours sincerely,

Team Group 03

Synopsis

The objective of our semester project is to provide students with practical experience by working on a real-life web application using PHP, Laravel, and MySQL. Rather than focusing only on theoretical knowledge, this project emphasizes applying what we have learned in class to build a functional system. By doing so, we not only strengthen our understanding of programming concepts but also develop the ability to design and implement complete solutions.

This project is not intended to re-teach the basics of PHP or Laravel, but to give us a real scenario where these tools can be applied to create dynamic and interactive web applications. It encourages us to connect various concepts, such as database management, backend logic, and user interface design, into one unified application.

The project is designed for students who have already completed the PHP and MySQL modules, and it should ideally be carried out during lab sessions with faculty guidance when necessary. Through this process, we gain exposure to essential skills such as CRUD operations, authentication, routing, and database connectivity.

Ultimately, this project helps us develop a deeper understanding of how modern web applications are built and prepares us for future challenges in professional development.

Review 01

Design Plan: E-Learning Management System	Document Name: Problem Definition	SWD/Form No.01/PD/Ver1.0
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Problem Definition

Our project focuses on developing an E-Learning Management System (LMS) designed to enhance the teaching and learning experience in a professional and accessible way. The system aims to provide students, instructors, and administrators with a centralized platform to manage courses, resources, and communication effectively.

The main objective of the LMS is to create a responsive, user-friendly, and scalable solution that supports both individual learners and institutional needs. This platform allows users to easily navigate through course categories, access detailed learning materials, view grades, submit assignments, and participate in discussions. Instructors, on the other hand, can design courses, upload content, evaluate students, and track progress seamlessly.

To ensure usability, the system is developed with the following criteria:

1. User-friendly design – intuitive navigation and responsive layout.
2. Well-structured menus – clear organization of courses, lessons, and assessments.
3. Consistent design scheme – professional interface with modern visuals.
4. Smooth interactions – reliable performance and seamless communication tools.

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Design Plan: E-Learning Management System	Document Name: Customer Requirements Specifications	SWD/Form No.02/CRSVer1.0
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Customer Requirements Specifications

I. CRS/Requirements Specifications

Client/Project Undertaken:		
1.	List of inputs to the system	
		<i>User login credentials (username, password)</i>
		<i>Student registration details (name, email, course selection, etc.)</i>
		<i>Instructor/teacher information (profile, subjects taught, schedules)</i>
		<i>Course content (documents, videos, quizzes, assignments)</i>
		<i>Assessment data (quiz answers, assignment submissions)</i>
		<i>Feedback/ratings from students</i>
		<i>Admin configurations (course creation, user management, reports)</i>
2.	List of outputs expected from the system	
		<i>User authentication confirmation (login success/failure)</i>
		<i>Course catalog and details available to students</i>
		<i>Learning materials accessible by enrolled students</i>
		<i>Progress tracking (course completion percentage, grades, scores)</i>
		<i>Reports for instructors (student performance, attendance, submissions)</i>
		<i>Notifications/announcements (deadlines, exam schedules, updates)</i>
		<i>Certificates of completion for students</i>
		<i>Admin dashboard with statistics and analytics</i>
3.	Overview of processes involved in the system	

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	<i>User Management: Register, login, update profile, manage roles (student, teacher, admin)</i>
	<i>Course Management: Create, upload, update, and delete courses/content</i>
	<i>Learning Process: Students enroll in courses, access materials, watch lectures, complete assignments</i>
	<i>Assessment Process: Conduct quizzes, evaluate assignments, calculate grades automatically</i>
	<i>Progress Tracking: Monitor student performance and generate progress reports</i>
	<i>Communication: Forum, messaging, announcements between teachers and students</i>
	<i>Administration: Manage users, courses, permissions, and generate system reports</i>

Admin/Project Undertaken:	
1.	List of inputs to the system
	<i>User login credentials (username, password)</i>
	<i>Student registration details (name, email, course selection)</i>
	<i>Instructor details (profile, subject expertise, timetable)</i>
	<i>Course materials (PDFs, videos, presentations, assignments)</i>
	<i>Quiz/assignment submissions by students</i>
	<i>Feedback, comments, and ratings from users</i>
	<i>Admin settings (role assignment, course management, reporting options)</i>
2.	List of outputs expected from the system

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		<i>Authentication results (login success/failure message)</i>
		<i>List of available courses and modules</i>
		<i>Learning resources accessible to enrolled students</i>
		<i>Quiz/assignment results and grades</i>
		<i>Student progress reports and completion certificates</i>
		<i>Notifications and announcements (exam dates, deadlines, updates)</i>
		<i>Analytics dashboard for admin (active users, performance stats, course usage)</i>
3.	Overview of processes involved in the system	
		<i>User Management: Registration, login, role assignment (student, teacher, admin)</i>
		<i>Course Management: Create, upload, update, and delete courses/materials</i>
		<i>Learning Process: Students access content, complete lessons, submit assignments</i>
		<i>Assessment: Online quizzes, automated grading, manual evaluation of assignments</i>
		<i>Progress Tracking: Monitoring student progress and generating reports</i>
		<i>Communication: Forums, messaging, and announcements between users</i>
		<i>Administration: Manage system settings, generate analytics, oversee overall system performance</i>

Hardware and Software required for implementing the project

Hardware Requirements

- Client (Student/Teacher):

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- o Computer/Laptop/Smartphone with internet connection
- o CPU: Dual Core or higher
- o RAM: Minimum 4GB
- o Hard Disk: Minimum 10GB free space
- o Modern Web Browser: Chrome, Firefox, Edge
- Server (Deployment):
 - o CPU: Quad Core or higher
 - o RAM: Minimum 16GB
 - o SSD Storage: $\geq 256\text{GB}$
 - o High-speed Internet connection with 99.9% uptime
 - o Operating System: Linux/Windows Server

Software Requirements

- Frontend: ReactJS, HTML5, CSS3, JavaScript, Bootstrap/Tailwind
- Base: PHP (Laravel Framework)
- Database: MySQL
- IDE/Editor: Visual Studio Code / NetBeans
- Web Server: Apache/Nginx
- Version Control: Git/GitHub

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- Testing Tools: Postman, PHPUnit/Jest
- Deployment (Optional): Docker, AWS/Azure/Heroku

II. CRS/Customer Acceptance Criteria

S.No	Customer's Acceptance Criteria
1	Given a registered student, when they log in, then they should be able to access their enrolled courses
2	Given a teacher uploads study materials, when students access the course, then they should be able to view/download them.
3	Given an administrator creates an exam, when students log in at the scheduled time, then they should be able to attempt the online test.
4	Given a student submits an exam, when results are processed, then the student should be able to view their score immediately.
5	Given a teacher posts announcements, when students log in, then they should see the notifications.
6	Given multiple users access the system simultaneously, when up to 100 users log in, then the system should remain stable and responsive.
7	Given incorrect login credentials, when a user attempts login, then the system should display an appropriate error message.
8	Given a student loses internet connection, when they reconnect, then their learning progress should be saved and resumed.

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III. Project Plan

1. Project Details	
+	Name of the Client: FPT Aptech
+	Date of Project Plan: 20 August 2025
+	<p>Project Vision/Objectives:</p> <p>To build an online E-Learning Management System that supports teaching, learning, course management, online assessments, and result tracking, providing a modern and accessible learning environment.</p>
+	<p>Scope:</p> <ul style="list-style-type: none"> • User management (Admin, Teacher, Student) • Course, lecture, and study material management • Online examination with automatic grading • Notification and feedback system for communication between teachers and students
+	<p>Our understanding of the client organization:</p> <p>The client requires a scalable system that can handle a large number of students, provide cross-platform accessibility, and ensure a user-friendly interface for smooth adoption.</p>
+	<p>Project Organization with Responsibilities and Authorities:</p> <ul style="list-style-type: none"> • Administrator: Manage users, courses, and overall system configuration • Teacher: Create courses, upload materials, create/manage exams, evaluate students

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	<ul style="list-style-type: none"> Student: Enroll in courses, access materials, complete assignments, take exams online
2. Project Initiation/Requirement Documents	
	Project Charter: Document defining E-Learning Management System objectives, scope, and stakeholder roles for FPT Aptech
	Business Requirements Document (BRD): Specifications for online teaching, learning, course management, and assessment functionalities
	Functional Requirements Specification (FRS): Detailed user stories and acceptance criteria for Admin, Teacher, and Student roles
	Technical Architecture Document: System design using ReactJS frontend, PHP Laravel backend, and MySQL database
	User Interface/User Experience (UI/UX) Design: Wireframes and mockups for responsive web application across devices
	Security Requirements: Authentication, authorization, data encryption, and secure exam environment specifications
	Performance Requirements: System capacity for 100+ concurrent users with 99.9% uptime guarantee
3. Deliverables	
	Web-based E-Learning Platform: Complete responsive application accessible via modern browsers
	Admin Dashboard: User management, course oversight, system configuration, and reporting modules
	Teacher Portal: Course creation, material upload, exam management, and student evaluation tools

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	Student Interface: Course enrollment, content access, online examination, and progress tracking features
	Database Schema: Normalized MySQL database with user, course, exam, and result management tables
	API Documentation: RESTful API endpoints documentation for frontend-backend communication
	User Manuals: Comprehensive guides for administrators, teachers, and students
	Deployment Package: Docker containers and cloud deployment scripts for production environment
4. Project Dependencies	
	External Dependencies: <ul style="list-style-type: none"> • Internet connectivity and hosting infrastructure availability • Third-party libraries and frameworks (ReactJS, Laravel) compatibility updates • SSL certificate procurement for secure HTTPS communication • Cloud service provider (AWS/Azure/Heroku) service availability
	Internal Dependencies: <ul style="list-style-type: none"> • FPT Aptech content and curriculum materials for course population • User data and existing student/teacher information for system migration • IT infrastructure setup and server configuration by client technical team • Stakeholder availability for requirement validation and testing phases
5. Major Project Milestones	
	Milestone 1 (Week 1): Requirements finalization, technical architecture approval, and project setup

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	Milestone 2 (Week 2): Database design completion, UI/UX prototypes approval, and development environment setup
	Milestone 3 (Week 3): Backend API development and authentication system implementation
	Milestone 4 (Week 4): Frontend development and API integration for core functionalities
	Milestone 5 (Week 5): Online examination module, grading system implementation, and system integration testing
	Milestone 6 (Week 6): User acceptance testing, deployment preparation, and project handover completion
6. Quality Plan	
+	Review Activities:
	Code Reviews: Peer review process for all developed modules using Git pull request workflow
	Architecture Reviews: Weekly technical architecture assessment to ensure scalability and maintainability
	Requirements Traceability: Regular verification that all customer acceptance criteria are being addressed
	UI/UX Reviews: Usability testing sessions with sample users from each role (Admin, Teacher, Student)
	Security Reviews: Penetration testing and vulnerability assessment for authentication and data protection
	Performance Reviews: Load testing with simulated 100+ concurrent users to validate system capacity

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	Database Reviews: Query optimization and data integrity validation for MySQL operations
+	Testing Activities:
	Unit Testing: Individual component testing using PHPUnit for backend and Jest for frontend modules
	Integration Testing: API endpoint testing using Postman to ensure seamless frontend-backend communication
	System Testing: End-to-end testing of complete user workflows for all three user roles
	User Acceptance Testing: Client validation of all acceptance criteria with real-world scenarios
	Performance Testing: Load and stress testing to verify system handles 100+ concurrent users
	Security Testing: Authentication bypass attempts, SQL injection, and cross-site scripting vulnerability tests
	Compatibility Testing: Cross-browser testing on Chrome, Firefox, and Edge browsers
	Mobile Responsiveness Testing: Verification of functionality across smartphones and tablets
+	Backup and recovery strategies:
	Database Backup: Automated daily MySQL database backups with 30-day retention policy stored in separate cloud storage
	Application Code Backup: Version control through Git repository with multiple remote backup locations

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	System Configuration Backup: Weekly snapshots of server configurations and deployment scripts
	Disaster Recovery Plan: Complete system restoration procedure with Recovery Time Objective (RTO) of 4 hours
	Data Recovery Testing: Monthly backup restoration drills to ensure data integrity and recovery processes
	Incremental Backups: Hourly incremental backups during peak usage hours to minimize data loss
	Cloud Storage Redundancy: Multi-region backup storage to protect against regional outages or disasters

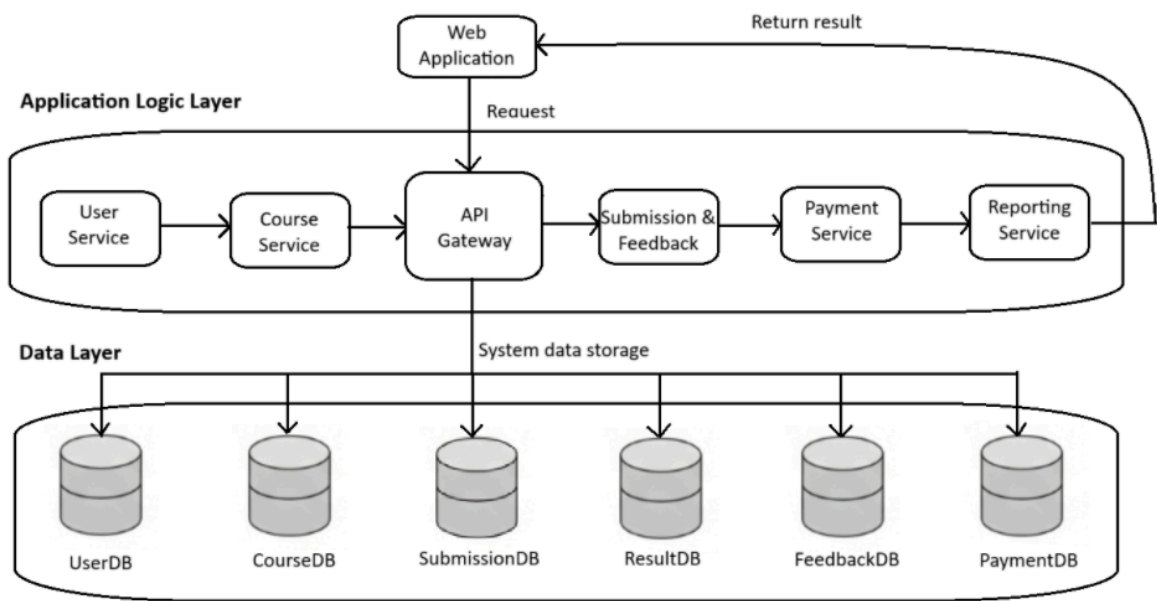
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Review 02

Design Plan: E-Learning Management System	Document Name: Architecture and design of the Application	SWD/Form No.03/ARD/Ver1.0
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Architecture and design of the Application

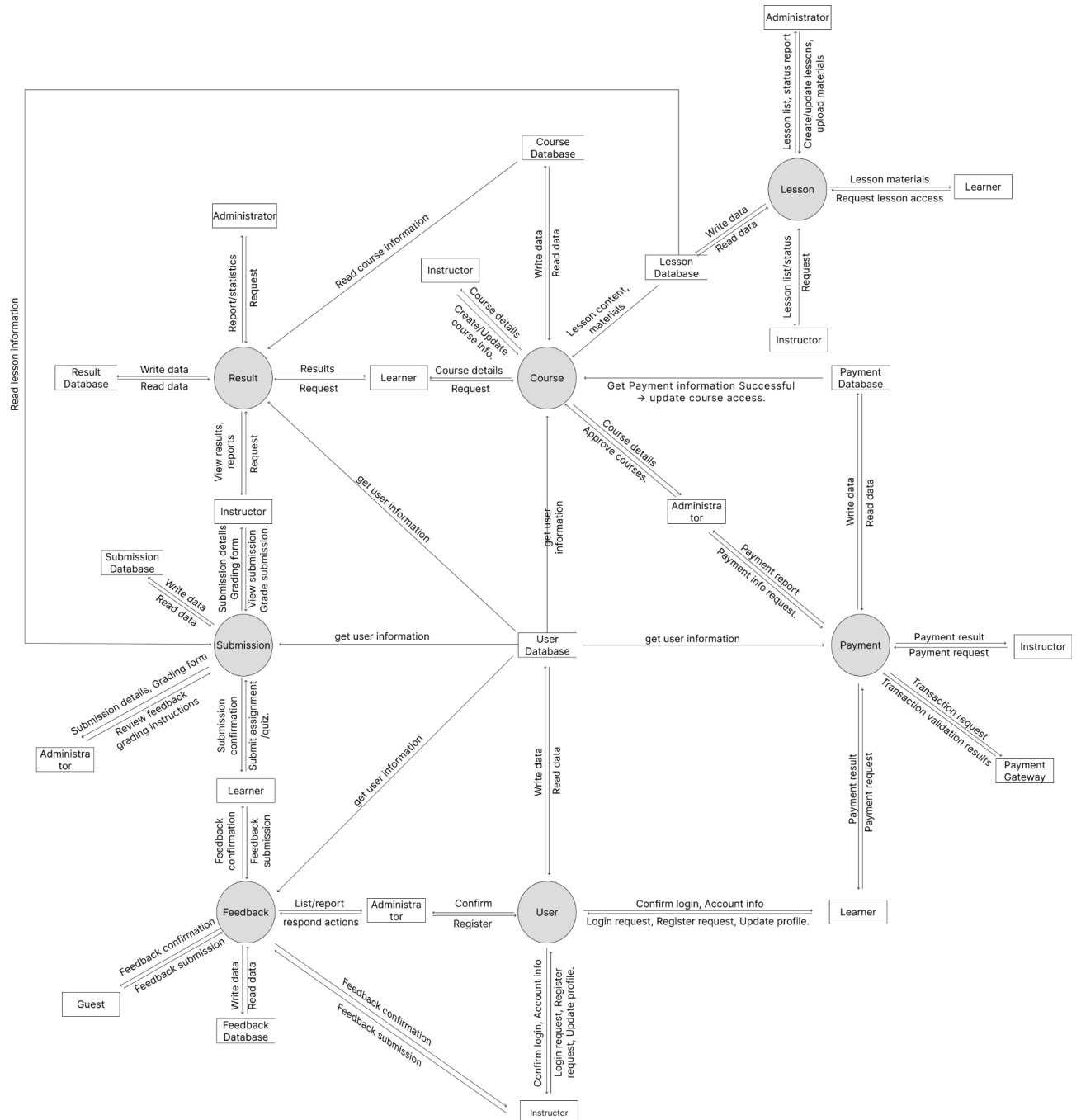
I. Application Architecture



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Design Plan: E-Learning Management System	Document Name: Architecture and design of the Application	SWD/Form No.03/ARD/Ver1.0
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II. Data Flow Diagram

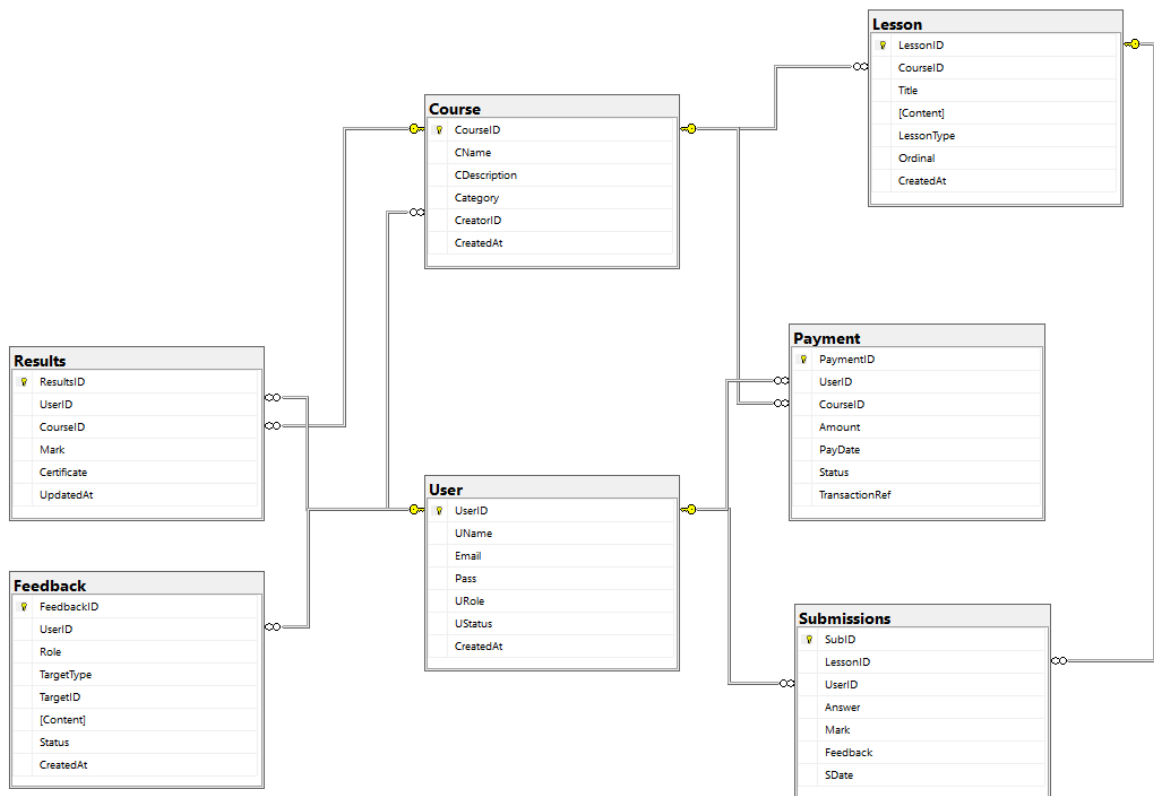


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Design Plan: E-Learning Management System	Document Name: Architecture and design of the Application	SWD/Form No.03/ARD/Ver1.0
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Entity Relationship Diagram

I. ERD



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II. ERD Properties

1. User

- Primary Key (PK): UserID
- Attributes: UName, Email, Pass, URole, UStatus, CreatedAt
- Relationships:
 - 1 User → many Courses (via CreatorID).
 - 1 User → many Results.
 - 1 User → many Feedbacks.
 - 1 User → many Payments.
 - 1 User → many Submissions.

2. Course

- Primary Key (PK): CourseID
- Foreign Key (FK): CreatorID → User(UserID)
- Attributes: CName, CDescription, Category, CreatedAt
- Relationships:
 - 1 Course → many Lessons.
 - 1 Course → many Results.
 - 1 Course → many Payments.
 - Each Course is created by 1 User.

3. Lesson

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- Primary Key (PK): LessonID
- Foreign Key (FK): CourseID → Course(CourseID)
- Attributes: Title, Content, LessonType, Ordinal, CreatedAt
- Relationships:
 - 1 Lesson → many Submissions.
 - Each Lesson belongs to 1 Course.

4. Results

- Primary Key (PK): ResultsID
- Foreign Keys (FK):
 - UserID → User(UserID)
 - CourseID → Course(CourseID)
- Attributes: Mark, Certificate, UpdatedAt
- Relationships:
 - Each Result belongs to 1 User.
 - Each Result belongs to 1 Course.

5. Feedback

- Primary Key (PK): FeedbackID
- Foreign Key (FK): UserID → User(UserID)
- Attributes: Role, TargetType, TargetID, Content, Status, CreatedA
- Relationships:
 - 1 User → many Feedbacks.
 - Feedback is linked to a Target (Course, Lesson, or Submission).

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6. Payment

- Primary Key (PK): PaymentID
- Foreign Keys (FK):
 - UserID → User(UserID)
 - CourseID → Course(CourseID)
- Attributes: Amount, PayDate, Status, TransactionRef
- Relationships:
 - 1 User → many Payments.
 - 1 Course → many Payments.

7. Submissions

- Primary Key (PK): SubID
- Foreign Keys (FK):
 - LessonID → Lesson(LessonID)
 - UserID → User(UserID)
- Attributes: Answer, Mark, Feedback, SDate
- Relationships:
 - 1 Lesson → many Submissions.
 - 1 User → many Submissions.

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Table Design

I. Table Design

User		
Column	Data Type	Constraint
UserID	INT	PK, Identity
UName	NVARCHAR(100)	NOT NULL
Email	NVARCHAR(100)	UNIQUE, NOT NULL
Pass	NVARCHAR(100)	NOT NULL
URole	NVARCHAR(50)	NOT NULL
UStatus	BIT	DEFAULT 1
CreatedAt	DATETIME	DEFAULT GETDATE()

Course		
Column	Data Type	Constraint
CourseID	INT	PK, Identity
CName	NVARCHAR(200)	NOT NULL
CDescription	NVARCHAR(MAX)	NULL
Category	NVARCHAR(100)	NULL
CreatorID	INT	FK → User(UserID)
CreatedAt	DATETIME	DEFAULT GETDATE()

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Lesson		
Column	Data Type	Constraint
LessonID	INT	PK, Identity
CourseID	INT	FK → Course(CourseID)
Title	NVARCHAR(200)	NOT NULL
Content	NVARCHAR(MAX)	NULL
LessonType	NVARCHAR(50)	NULL
Ordinal	INT	NULL
CreatedAt	DATETIME	DEFAULT GETDATE()

Submissions		
Column	Data Type	Constraint
SubID	INT	PK, Identity
LessonID	INT	FK → Lesson(LessonID)
UserID	INT	FK → User(UserID)
Answer	NVARCHAR(MAX)	NULL
Mark	FLOAT	NULL
Feedback	NVARCHAR(MAX)	NULL
SState	NVARCHAR(50)	NULL

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Results		
Column	Data Type	Constraint
ResultID	INT	PK, Identity
UserID	INT	FK → User(UserID)
CourseID	INT	FK → Course(CourseID)
Mark	FLOAT	NULL
Certificate	NVARCHAR(200)	NULL
UpdatedAt	DATETIME	DEFAULT GETDATE()

Payment		
Column	Data Type	Constraint
PaymentID	INT	PK, Identity
UserID	INT	FK → User(UserID)
CourseID	INT	FK → Course(CourseID)
Amount	DECIMAL(10,2)	NOT NULL
PayDate	DATETIME	DEFAULT GETDATE()
Status	NVARCHAR(50)	NULL
TransactionRef	NVARCHAR(100)	UNIQUE

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Feedback		
Column	Data Type	Constraint
FeedbackID	INT	PK, Identity
UserID	INT	FK → User(UserID)
Role	NVARCHAR(50)	NULL
TargetType	NVARCHAR(50)	NULL
TargetID	INT	NULL (tham chiếu linh hoạt)
Content	NVARCHAR(MAX)	NULL
Status	BIT	DEFAULT 1
CreatedAt	DATETIME	DEFAULT GETDATE()

II. Relationship Diagram

- User (1) → (M) Course (qua CreatorID)
- User (1) → (M) Results
- User (1) → (M) Payment
- User (1) → (M) Submissions
- User (1) → (M) Feedback
- Course (1) → (M) Lesson
- Course (1) → (M) Results
- Course (1) → (M) Payment
- Lesson (1) → (M) Submissions

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Site Map

Home Page

- Login / Register
- View Public Courses (List of public courses)

Admin Panel

- User Management
 - Add / Edit / Delete Users
 - Assign Roles
- Course Management
 - Add / Edit / Delete Courses
 - Manage Lessons
- Assignments & Feedback
 - Manage Assignments
 - Manage Feedback
- Reports & Analytics

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Teacher Panel

- Profile Management
- Course Management
 - Create Lessons
 - Upload Materials
- Assessment Management
 - Create Quizzes / Assignments
 - Grade Students
- Feedback
 - View & Respond to Feedback

Student Panel

- Profile Management
- Course Enrollment
- Learning & Submissions
 - View Lessons / Download Materials
 - Submit Assignments
 - Take Quizzes
- Feedback
 - Give Feedback
 - View Instructor Feedback
- Progress Tracking

	Prepared by (Student)	Approved by (Faculty)
	Project Group No: 03	LE THANH NHAN
Signature		
Date		

Design Plan: E-Learning Management System	Document Name: Algorithm	SWD/Form No.06/ALG/Ver1.0
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Algorithm

I. Administrator

1. User Management Algorithm

Input: User data (name, email, role, password)

Process:

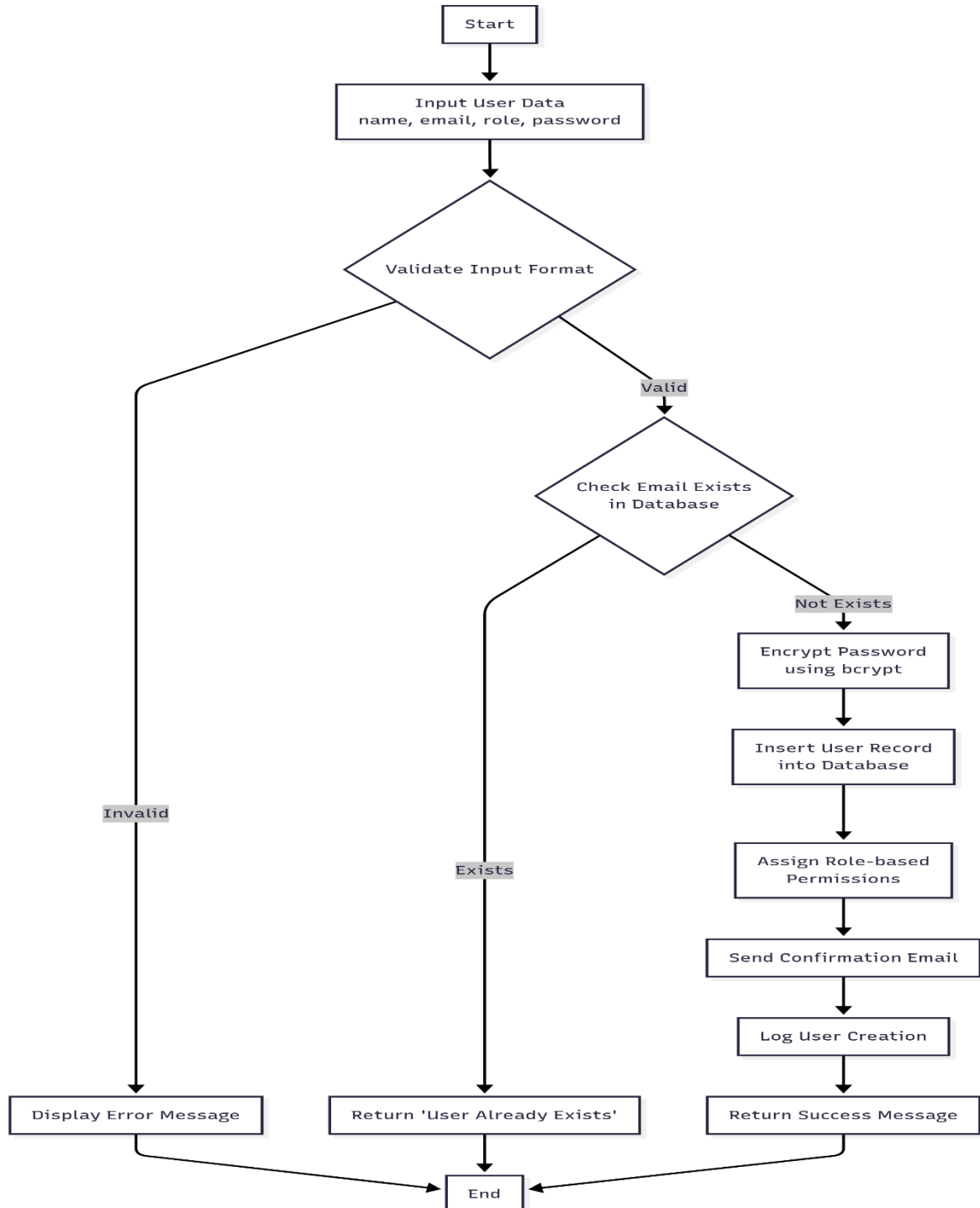
1. Validate input data format
2. Check email uniqueness in database
3. Encrypt password using bcrypt
4. Insert new user record
5. Assign role-based permissions
6. Send confirmation email

Output: User creation status message

Flowchart:

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2. Course Approval Algorithm

Input: Course ID, approval status

Process:

1. Retrieve course details from database
2. Validate course content completeness
3. Check instructor qualifications
4. Update course status to "Active/Rejected"
5. Send notification to instructor
6. Log approval action

Output: Course approval confirmation

3. System Report Generation Algorithm

Input: Report type, date range

Process:

1. Query relevant data from multiple tables
2. Calculate statistics (enrollment, completion rates)
3. Format data for presentation
4. Generate PDF/Excel report
5. Save report to file system

Output: Comprehensive system report

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II. Teacher/Staff

1. Course Creation Algorithm

Input: Course details (title, description, category)

Process:

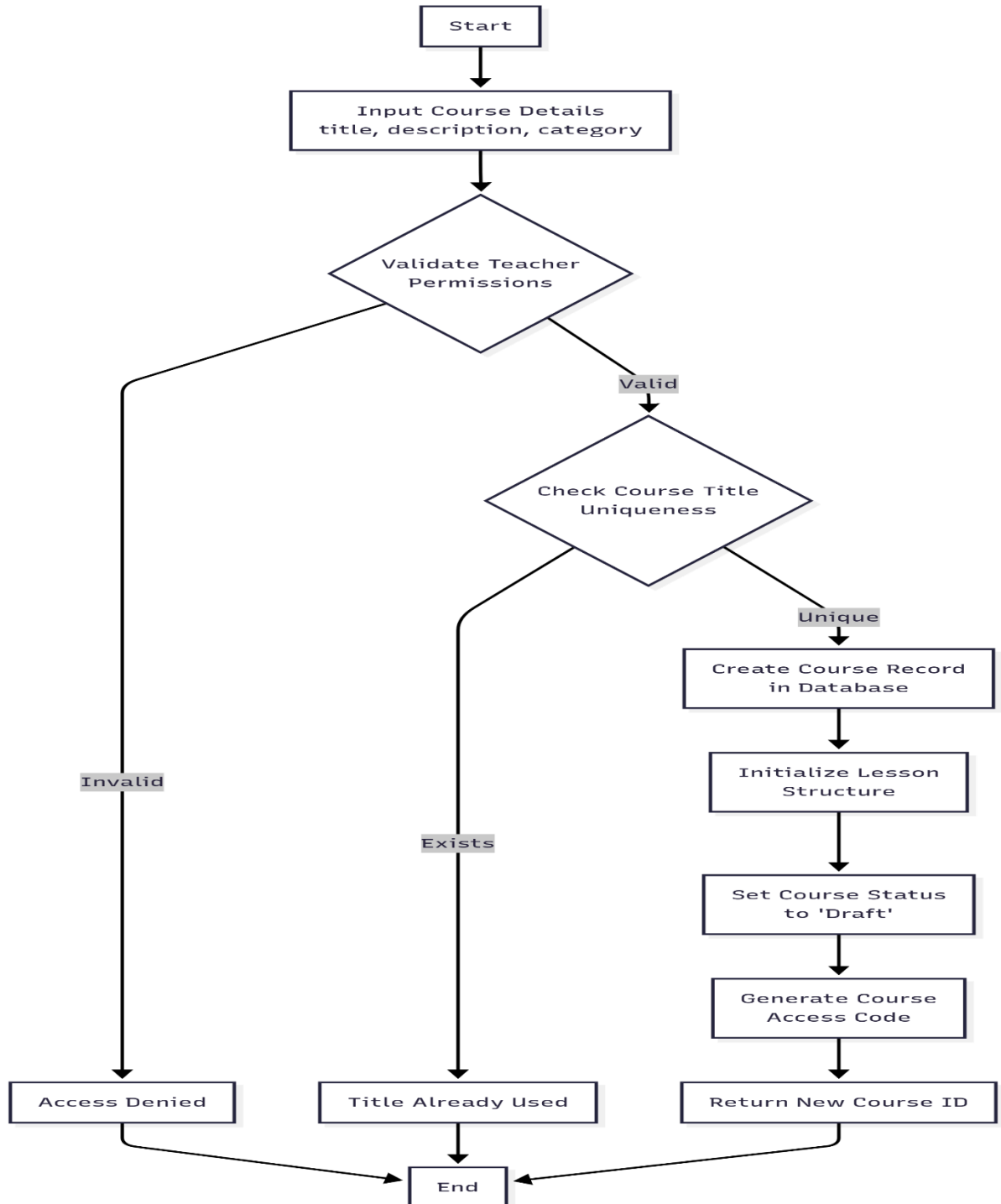
1. Validate teacher permissions
2. Check course title uniqueness
3. Create course record in database
4. Initialize lesson structure
5. Set course status to "Draft"
6. Generate course access code

Output: New course ID

Flowchart:

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2. Content Upload Algorithm

Input: File data, course ID, content type

Process:

1. Validate file size and format
2. Scan for security threats
3. Generate unique filename
4. Upload to storage server
5. Create content metadata record
6. Link content to specific lesson

Output: Upload confirmation message

3. Assessment Grading Algorithm

Input: Student submission, answer key

Process:

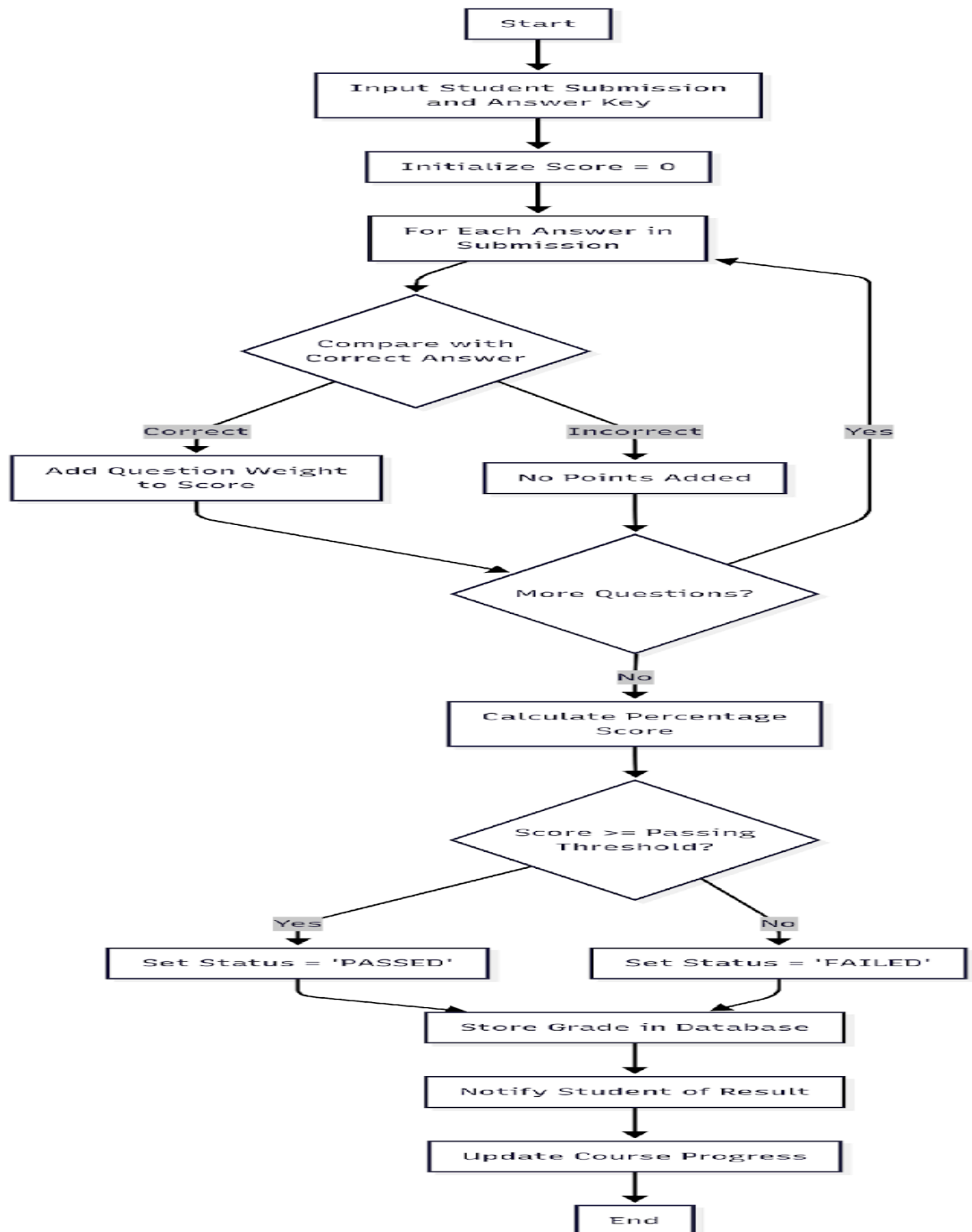
1. Compare student answers with correct answers
2. Calculate score based on question weights
3. Determine pass/fail status
4. Store grade in database
5. Update student progress
6. Send grade notification to student

Output: Final grade and feedback

Flowchart:

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III. Student

1. Course Enrollment Algorithm

Input: Student ID, course ID

Process:

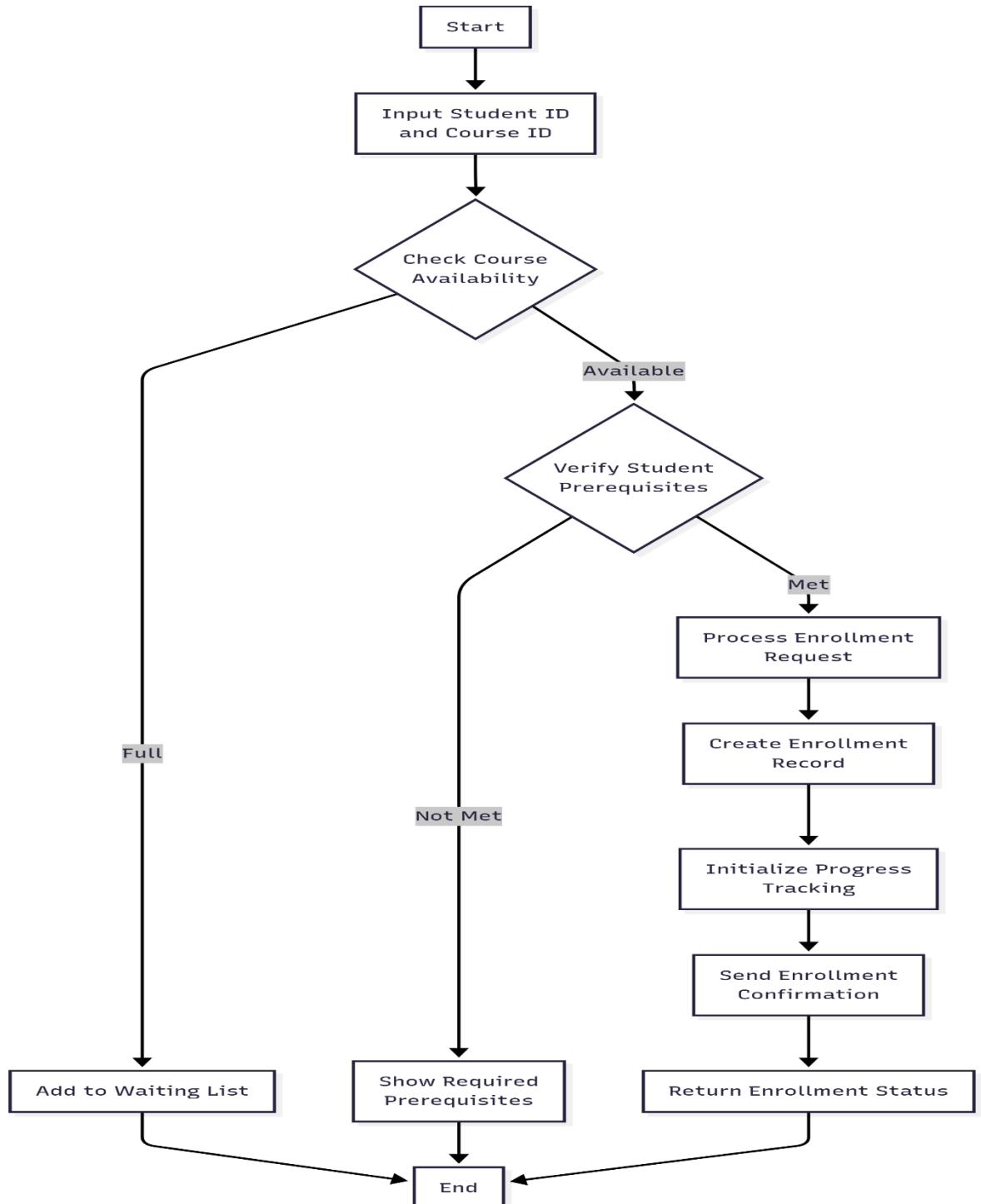
1. Check course availability and capacity
2. Verify student prerequisites
3. Process enrollment request
4. Create enrollment record
5. Initialize progress tracking
6. Send enrollment confirmation

Output: Enrollment status

Flowchart:

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2. Assignment Submission Algorithm

Input: Assignment file, student ID, assignment ID

Process:

1. Validate submission deadline
2. Check file format compatibility
3. Upload assignment to server
4. Create submission record
5. Update assignment status
6. Notify teacher of new submission

Output: Submission confirmation

3. Progress Tracking Algorithm

Input: Student activity data

Process:

1. Record lesson completion
2. Update course progress percentage
3. Check milestone achievements
4. Generate progress report
5. Update student dashboard
6. Send progress notifications

Output: Updated progress status

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IV. System-Level Algorithms

1. Authentication Algorithm

Input: Username, password

Process:

1. Retrieve user record from database
2. Verify account status (active/inactive)
3. Compare password with stored hash
4. Generate session token if valid
5. Update last login timestamp
6. Set session expiration time

Output: Authentication result and session token

2. Notification System Algorithm

Input: User ID, message type, content

Process:

1. Check user notification preferences
2. Determine notification priority
3. Format message according to type
4. Send notification via selected channels
5. Log notification delivery
6. Store in notification history

Output: Notification delivery status

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3. Database Backup Algorithm

Input: Backup type (full/incremental)

Process:

1. Check system resources availability
2. Create backup timestamp identifier
3. Export database according to backup type
4. Compress backup file
5. Upload to secure cloud storage
6. Verify backup file integrity
7. Update backup log records

Output: Backup completion status

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Review 03

Design Plan: E-Learning Management System	Document Name: Screen shots	SWD/Form No.07/SS/Ver1.0
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Screen shots

Các layout mô tả màn hình. Sinh viên có thể vẽ layout. Nếu không thể thì code HTML cơ bản rồi chụp lại hình màn hình.

Ví dụ cách thứ nhất: (Khuyến cáo sử dụng)

I. Database Configuration:

Database Configuration

Host Name:

Port:

Database Name:

User:

Password:

Description : Mô tả màn hình là gì? Dùng làm gì?

From : Được mở từ đâu? Menu nào?

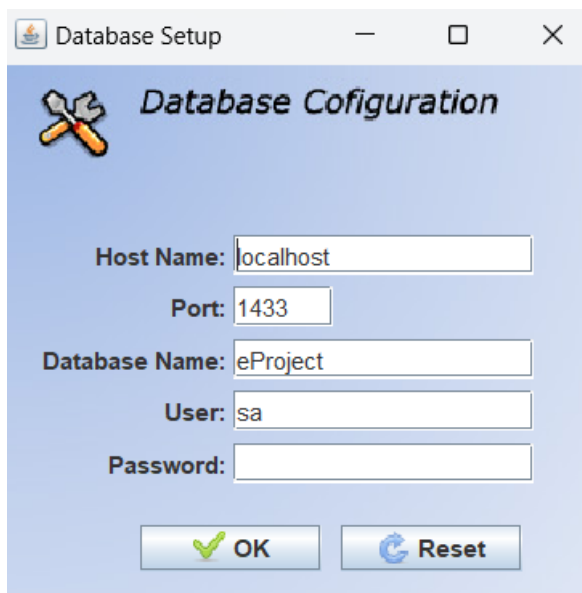
To : Có thể tới được trang nào khác?

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Date		

Design Plan: E-Learning Management System	Document Name: Screen shots	SWD/Form No.07/SS/Ver1.0
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Ví dụ cách thứ hai:

I. Database Configuration:



The screenshot shows a window titled "Database Setup" with a subtitle "Database Cofiguration" (note the typo). It contains several input fields: "Host Name" with the value "localhost", "Port" with "1433", "Database Name" with "eProject", "User" with "sa", and an empty "Password" field. At the bottom, there are two buttons: "OK" with a green checkmark icon and "Reset" with a blue circular arrow icon.

Description : Mô tả màn hình là gì? Dùng làm gì?

From : Được mở từ đâu? Menu nào?

To : Có thể tới được trang nào khác?

Properties	Value
Document theme and color scheme	
Form - Background color	
Title - Font Size	
Title - Font Color	
Title - Font Style	
Title - Alignment	
Background color of Controls on the form	
Foreground color of Controls on the form	
Control Caption -- Font size	

	Prepared by (Student) Project Group No:03	Approved by (Faculty) LE THANH NHAN
Signature		
Date		

Design Plan: E-Learning Management System	Document Name: Screen shots	SWD/Form No.07/SS/Ver1.0
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Control Caption - Font Color	
Control Caption - Font Style	
Control caption and controls - Alignment	
Command button - Alignment	

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Design Plan: E-Learning Management System	Document Name: Testing document	SWD/Form No.08/TD/Ver1.0
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Testing document

Sr.No	Features Tested	Remarks
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

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Date		

Design Plan: E-Learning Management System	Document Name: Final checklist	SWD/Form No.09/FC/Ver1.0
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Final checklist

Sr.No	Aspected Tested	Suggestion/ Remarks
1	Are all the users able to view the images and links?	
2	Have all the views, modules and controllers been properly integrated and is the site function as a single page application?	
3	Are the GUI content devoid of spelling mistakes?	
4	Is the application user-friendly?	
5	Is the Website launching correctly in all popular browsers?	
6	Are all the forms validated with proper criteria?	
7	Do all text links lead to the appropriate website?	
8	Do all image links lead to the appropriate website?	
9	Are all the images and links clearly visible on the page?	
10	Does the Web page work properly in all the tested browsers?	
11	Does the Web page take too long to be loaded fully?	
12	Is the navigation sequences correct through all the Web pages on the site?	
13	Is the JavaScript code working as expected in all click events?	
	(Sinh viên ghi thêm...)	

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Design Plan: E-Learning Management System	Document Name: Task Sheet	SWD/Form No. 10/TS/Ver1.0
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No	Member	Contents		Table Name	Activity Plan	Date of Preparation of Activity Plan		
					Planned Start Date	Actual Start Date	Actual Days	Status
1	Lê Thị Hạnh Mai	Admin	Course Management (Add/Edit/Delete Courses)	Courses Lessons	20/08/2025	20/08/2025		100
2		User	View & Enroll Course, Access Lessons		20/08/2025	20/08/2025		
1	Cổng Hiển Khoa	Admin	User Management (Add/Edit/Delete Users) Payment management (checking, confirming and processing transactions).	Users Payment	20/08/2025	20/08/2025		100
2		User	Register, Login, Update Profile, Personal Account Management Make payments, track history, and manage personal payment information.		20/08/2025	20/08/2025		
1	Đương Minh Mẫn	Admin	Assignment/Exam & Feedback Management (Add/Edit/Delete Assignments/Exam, Manage Feedback)	Submission Result Feedbacks	20/08/2025	20/08/2025		100
2		User	Submit Assignment/Exam, Give Feedback, Personal Feedback Management		20/08/2025	20/08/2025		

	Prepared by (Student)	Approved by (Faculty)
	Project Group No:03	LE THANH NHAN
Signature		
Date		