

# **IT314 - Software Engineering**



## **Group 26**

### **Online course management system**

#### **Lab 3 - Specifying Functional and Non-Functional Requirements**

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## **User Stories:**

### **Administrator**

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#### **Front of card :**

- As an administrator, I want to be able to manage user's accounts, add and remove courses, and generate reports on system usage and performance, so that I can ensure the online course management system is meeting the needs of our organization and users.

#### **Backside of card :**

- The system should enable administrators to add and remove courses, manage enrollment, and track student progress and performance.
  - Administrators should be able to create new user accounts, reset passwords, and manage user roles and permissions.
  - The system should provide an administration panel for administrators to manage user accounts, courses, and system settings.
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#### **Front of card:**

As an administrator, I should be able to see a list of the number of students enrolled in each course, so that I can remove courses for the current semester in which the number of registered students are very less and remove students from courses in which there is large registration.

#### **Backside of card:**

-The system should provide a table of courses and number of students enrolled in that course to the Administrator.

-System should allow the admin to add or remove students from courses. so that the process of managing student enrollments should be intuitive and easy to use.

**Front of card:**

As an administrator, I should be able to view Instructor feedback forms results, so that I can look over instructors whose performance is not good.

**Backside of card:**

The system should provide a bar chart report of feedback to the administrator.

## Student

**Front of card :**

As a student, I should be able to browse the list of courses available, see the prerequisites and enroll for particular courses so that I can study only desired subjects and access their course material.

**Backside of card :**

- The system should provide a catalog of courses that can be searched and selected.
- Each course should have a name, description, instructor.
- The website should be user friendly.
- The system should make requests to the administrator for enrolling in the course.

**Front of card :**

As a student, I want to be able to access reports on my own performance and progress in the course, so that I can track my own learning and identify areas where I need to focus more attention.

**Back side of card :**

- The reports should be easily accessible and navigable, with clear visualizations and summaries of the data.
- The reports should allow students to compare their performance with the class average and identify areas where they need to improve.

**Front of card :**

As a student, I want to be able to access my course materials easily and quickly, so that I can review the content and prepare for exams.

**Backside of card :**

- I expect the system to have a user-friendly interface that allows me to navigate through the course materials easily.

**Front of card:**

As a student, I want to be able to trust that my personal and academic information is protected and secure, so that I can focus on my learning without worrying about data breaches or unauthorized access.

**Backside of card:**

- The system to be secure and protect sensitive information, such as my grades, personal information, and confidential communications. Passwords should be encrypted and stored securely to prevent unauthorized access.

**Front of card:**

As a student, I want to be able to access my course materials and complete my assignments at any time, so that I can manage my learning schedule effectively and efficiently.

**Backside of card:**

- The system to be available and functional 24/7, with minimal downtime for maintenance and updates.

**Front of card:**

As a student/instructor/administrator, I want the platform to have secure login and authentication features, so that unauthorized individuals cannot access my account or the course content.

**Backside of card :**

- The platform should use strong and unique passwords and enforce password complexity rules.
- The platform should have a session management system that automatically logs out inactive users and invalidates sessions after a period of time.
- The platform should use encryption and secure protocols (e.g., HTTPS) to protect user data in transit and at rest.

**Front of card :**

As a student, I want to be able to communicate with my instructors and classmates through a built-in messaging system, so that I can ask questions, discuss regarding course material.

**Backside of card :**

- The system should provide a messaging system for students to communicate with instructors and enable students to view and respond to messages.
- The system should allow students to view their message history and keep track of conversations.

**Front of card :**

As a student, I want to access course content like notes and lecture slides given by the instructor from any device, including my laptop, tablet, or smartphone, so that I can study and complete coursework on-the-go.

**Backside of card :**

- The online course management system should require less memory, be fully responsive and accessible from any device, including laptops, tablets, and smartphones.
- The system should be optimized for different screen sizes and resolutions to ensure a consistent user experience across devices.
- System should show course content to students course wise.

**Front of card:**

As a student, I want to be able to see the due dates for upcoming assignments and should be able to submit assignments/quizzes, so that I can manage my time effectively and avoid missing deadlines.

**Backside of card :**

- The system should provide a calendar or dashboard that shows students the due dates for upcoming assignments and other work.
- The system should be available 24/7 to allow students to access course materials and submit assignments at any instant before the due date.
- The system should have a proper dashboard to submit assignments.

**Front of card:**As a student, I should be able to view my grades and track my progress in each course, so that I can stay on top of my work and identify areas where I need help.

**Backside of card :**

-The system should provide a dashboard where the student's progress and past grades are displayed. This would help the students analyze their performance

## **Instructor:**

### **Front of card:**

As an instructor, I want to be able to send announcements to all students enrolled in a course.

### **Backside of card :**

- The announcement feature should be available in the course management system used by the institution.
- The instructor should be able to view the history of announcements sent for each course.

### **Front-end:**

- As an instructor, I want to have access to set course requirements, such as prerequisites, assessments, and deadlines for the courses I am teaching so that students having certain prerequisites only enroll in that course .

### **Backside of card:**

- The system should provide permission to the instructor to control prerequisites and deadlines in his course.
- The system should be easy to use and navigate for instructors.

### **Front of card :**

- As an instructor, I want to be able to create and edit course content such as lecture slides, assignments and conduct quizzes so that I can provide a dynamic and engaging learning experience for my students.

### **Backside of card :**



- The system should provide a platform for instructors to upload course content such as lecture slides, assignments are created or edited.

**Front of card :**

- As an instructor, I want to be able to create and edit course content such as lecture slides, assignments and conduct quizzes so that I can provide a dynamic and engaging learning experience for my students.

**Backside of card :**

- The system should provide a platform for instructors to upload course content such as lecture slides, assignments are created or edited.

**Front of card:**

- As a student, I want to search for courses and make requests to join particular courses so that I can access the courses I am interested in.

**Backside of card:**

- The system should allow students to search for courses. Students should be able to see a list of available courses and their descriptions. Students should be able to request to join courses and receive notifications on the status of their requests.

**Front of card :**

As an instructor, I want to view and respond to student questions and messages, so that I can provide support and guidance throughout the learning process.

**Backside of card :**

- The system should provide a messaging system for instructors to communicate with students and enable instructors to view and respond to messages.

- The system should allow instructors to view their message history and keep track of conversations.

**Front of card :**

As an instructor, I want to be able to create and edit course content such as lecture slides, assignments and conduct quizzes so that I can provide a dynamic and engaging learning experience for my students.

**Backside of card :**

- The system should provide a platform for instructors to upload course content such as lecture slides, assignments are created or edited.

**Front of card :**

As an instructor, I want to see the progress report of any student and provide feedback, so that students can view the reports and analyze their work and improve upon that.

**Backside of card:**

The system should provide a feature using which instructors can see progress reports of students based on their performances and also provide personalized feedback to each student.

**Front-end:**

As an instructor, I want to have access to set course requirements, such as prerequisites, assessments, and deadlines for the courses I am teaching so that students having certain prerequisites only enroll in that course .

**Backside of card:**

- The system should provide permission to the instructor to control prerequisites and deadlines in his course.
- The system should be easy to use and navigate for instructors.

**Backside of card :** The system should allow instructors to create and manage their own courses. instructors should be able to add course materials, such as videos, quizzes, and assignments. instructors should also be able to track the progress of their students, including grades and completion rates.

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**Front of card:**

As an instructor, I want to create a new course with modules and lessons, and upload course content like text, video, audio, and images, so that students can easily navigate and understand the course material. learn from my knowledge and expertise.

**Backside of card:**

The instructor should be able to create a new course by providing a course name and description and organize course content into modulus and lessons by creating a new module and dragging and dropping the course content into the appropriate section.

## SPRINTS

### Sprint 1

- Develop a registration page where students can **create an account** and **sign up** for courses.
- Implement a **course creation page** where instructors can **create new courses**, including setting a course description.
- Develop a course **search feature** where students can search for courses by keyword, subject, and instructor.

### Sprint 2

- Develop a **student dashboard** where students can view their enrolled courses, upcoming assignments and deadlines, and grades.
- Implement an **instructor dashboard** where instructors can manage their courses, and post announcements.
- Add the ability for instructors to **create** assignments, quizzes, and other assessments for their courses.

### Sprint 3

- Develop a **course content management system** where instructors can upload and organize course materials such as slides, videos, and readings.
- Implement a **discussion forum** where students can ask questions, share resources, and communicate with instructors.

### Sprint 4

- Develop a grading and **feedback system** where instructors can grade student assignments and provide feedback.
- Implement a **reporting system** that provides detailed analytics on student performance, including grades, and progress over time.
- Add the ability for instructors to export course data in various formats such as CSV and PDF.

### Sprint 5

- Implement a system where students can request to **join the course** and can **register** if the instructor approves.
- Develop a **course evaluation system** where students can provide feedback on the course and instructor.

### **Sprint 6**

- Add the ability for admin to **customize** the course design and branding, including course logos and color schemes.
- Add the ability for students to **submit** assignments and quizzes online.