**ELearning Application Use Case Diagram**

ELearning has become an increasingly popular form of education in recent years, especially due to the COVID-19 pandemic. With the rise of online learning, many educational institutions have turned to eLearning applications to deliver course content and facilitate student engagement. However, creating a comprehensive and effective eLearning application can be challenging, especially without a clear understanding of its functionalities. That's where an eLearning Application Use Case Diagram comes in. In this blog post, we will explore the importance and benefits of using an eLearning Application Use Case Diagram in the development of an effective eLearning application. From identifying key functionalities to improving communication between stakeholders, we will discuss how a Use Case Diagram can help to streamline the development process and ensure that the final product meets the needs of both educators and learners. This article is a valuable resource for anyone interested in understanding the role of use case diagrams in developing an effective eLearning application and how they can help to improve the online learning experience.

**About the Project**

The capstone project entitled “ELearning Application” is an online platform that will allow the Integrated School community to conduct and continue the learning process despite of the current situation we have.

Elearning applications, also known as online learning or digital learning, have become increasingly important in recent years. These applications provide a convenient and flexible way for people to access education and training, regardless of their location or schedule.

An online learning platform that students can use from any location with an internet connection is the goal of a project to develop a web-based eLearning application in PHP and MySQL. The goal of the project is to deliver an extensive eLearning platform that is user-friendly, scalable, and effective. Learners will have access to a range of multimedia resources through the eLearning program, such as videos, audio files, and interactive quizzes. Additionally, the system will provide tools for evaluating performance, giving feedback, and monitoring learner progress. The application will be developed on a stable and secure platform thanks to the usage of PHP and MySQL, ensuring that users may use the system with simplicity and confidence.**What is a Use Case Diagram?**

A use case diagram is a visual representation of the functionalities and interactions of a system, showing the different actors, use cases, and their relationships. In the context of developing a web-based eLearning application, a use case diagram is an essential tool for identifying and defining the various functionalities that the system should possess, and how different actors (such as learners, instructors, administrators, etc.) will interact with the system.

The development team may better comprehend the needs of the system and how to create a more effective and efficient eLearning application by designing a use case diagram. In order to build a comprehensive eLearning application, it is helpful to define important capabilities including designing courses, managing user accounts, generating reports, and tracking learner progress.

Also, a use case diagram offers stakeholders and team members a clear communication tool that enables them to see the system's general functions and the connections between the various actors and use cases. This makes it more likely that the finished output will satisfy the requirements of both instructors and students.

**Use Case Diagram**



Teacher

Dashboard

Student Info

Teacher Info

Teacher Load

Lecture Materials

Admin





Test Management

Chat/Notification

Student

Reports

Database Backup

The image above is the Use Case Diagram of the ELearning Application. The app has three user sides, the admin, teacher and the students. The admin can access the entire core modules of the system. The Teacher can access the Teacher Load, Lecture Materials, Test Management, Chat/Notification and Reports module of the system while the Students can access the Lecture Materials, Test Management and Chat/Notification modules of the system.

**Use Cases**

The following are the discussions that describe how a user uses a system to accomplish a particular goal.

**Use Case:** Dashboard

**Actor(s):** Admin

**Description:**

This feature is used to manage the information displayed in the dashboard of the ELearning Application.

**Successful Completion:**

1. The admin can search, add, update and remove information to be displayed in the dashboard.

**Alternative:** The admin can access and manage all dashboard information.

**Precondition:** The admin will login first to access the dashboard.

**Post Condition:** updated dashboard information

**Use Case:** Student Info

**Actor(s):** Admin

**Description:**

This feature is used to manage the profile of the students in the system.

**Successful Completion:**

1. The admin can search, add, update and remove student details in the system using this feature.

**Alternative:** New student will be registered, for old students; they can use this to update their profile.

**Precondition:** The admin will login first to access the Student Info module.

**Post Condition:** registered student, updated student information

**Use Case:** Teacher Info

**Actor(s):** Admin

**Description:**

This feature is used to manage the profile of the teachers in the system.

**Successful Completion:**

1. The admin can search, add, update and remove teachers’ details in the system using this feature.

**Alternative:** New teacher will be registered, for old teacher; they can use this to update their profile.

**Precondition:** The admin will login first to access the Teacher Info module.

**Post Condition:** registered teacher, updated teacher information

**Use Case:** Teacher Load

**Actor(s):** Admin and Teacher

**Description:**

This feature is used to view and manage the subject loads of the teachers in the system.

**Successful Completion:**

1. The teachers can view their subject loads using this feature.
2. The admin can search, add, update and remove information of the teacher loads.

**Alternative:** The teachers can only view their loading; the admin can access and manage the teacher’s entire loading.

**Precondition:** The admin and the teachers will login first to access the Teacher Load.

**Post Condition:** updated Teacher Loading

**Use Case:** Lecture Materials

**Actor(s):** Admin, Teacher and Students

**Description:**

This feature is used to view and manage the lecture materials uploaded in the system.

**Successful Completion:**

1. The teachers can add and view their lecture materials using this feature.
2. The student can view uploaded lecture materials using this feature.
3. The admin can search, add, update and remove information of the lecture materials.

**Alternative:** The teachers and students can only view their lecture materials; the admin can access and manage all of the lecture materials information.

**Precondition:** The admin, teachers, and students will login first to access the Lecture Materials.

**Post Condition:** updated Lecture Materials

**Use Case:** Test Management

**Actor(s):** Admin, Teacher and Students

**Description:**

This feature is used to view and manage the tests uploaded in the system.

**Successful Completion:**

1. The teachers can add and view test using this feature.
2. The student can view test materials using this feature.
3. The admin can search, add, update and remove information of the test.

**Alternative:** The teachers and students can only view their test; the admin can access and manage all of the test data.

**Precondition:** The admin, teachers, and students will login first to access the Test Management.

**Post Condition:** updated Test Information

**Use Case:** Chat/Notification

**Actor(s):** Admin, Teacher and Students

**Description:**

This feature is used to view and manage Chat/Notification in the system.

**Successful Completion:**

1. The teachers/student can add and browse notification or chats using this feature.
2. The admin can search, add, update and remove information of the Chat/Notification.

**Alternative:** The teachers and students can only view their Chat/Notification; the admin can access and manage all of the Chat/Notification.

**Precondition:** The admin, teachers, and students will login first to access the Chat/Notification.

**Post Condition:** updated Chat/Notification information

**Use Case:** Reports

**Actor(s):** Admin and Teacher

**Description:**

This feature is used to view and print the reports in the system.

**Successful Completion:**

1. Teachers can view and print reports using this feature.
2. Admin can view, print and export the report of the system.

**Alternative:** None

**Precondition:**

1. Teachers will need to login first to access the Reports module.
2. Admin will need to login to access the reports.

**Post Condition:** hard and soft copy of the report of the system.

**Use Case:** Database Backup

**Actor(s):** Admin

**Description:**

This feature is used to manage the backup database of the system.

**Successful Completion:**

1. The admin can add, edit, and update database backup information.

**Alternative:** None

**Precondition:** Admin will create and connect the backup database.

**Post Condition:** new backup database.

**Summary**

The capstone project entitled “ELearning Application” is an online platform that will allow the Integrated School community to conduct and continue the learning process despite of the current situation we have. The image above is the Use Case Diagram of the ELearning Application. The app has three user sides, the admin, teacher and the students. The admin can access the entire core modules of the system. The Teacher can access the Teacher Load, Lecture Materials, Test Management, Chat/Notification and Reports module of the system while the Students can access the Lecture Materials, Test Management and Chat/Notification modules of the system. In general, the use case diagram is a critical tool in the creation of a web-based eLearning application as it aids in the identification of essential capabilities, enhances team communication, and guarantees that the final product satisfies the requirements of students and instructors.