

# CC2101 Software Engineering

## Assignment 3

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# Sequence Diagram

## Marklynk Attendance Management System

### Introduction

A sequence diagram is a UML behavioral diagram that illustrates the interaction between actors and system components in a time-ordered sequence.

This diagram is used to understand how different objects in the Marklynk Attendance Management System collaborate to complete a specific task.

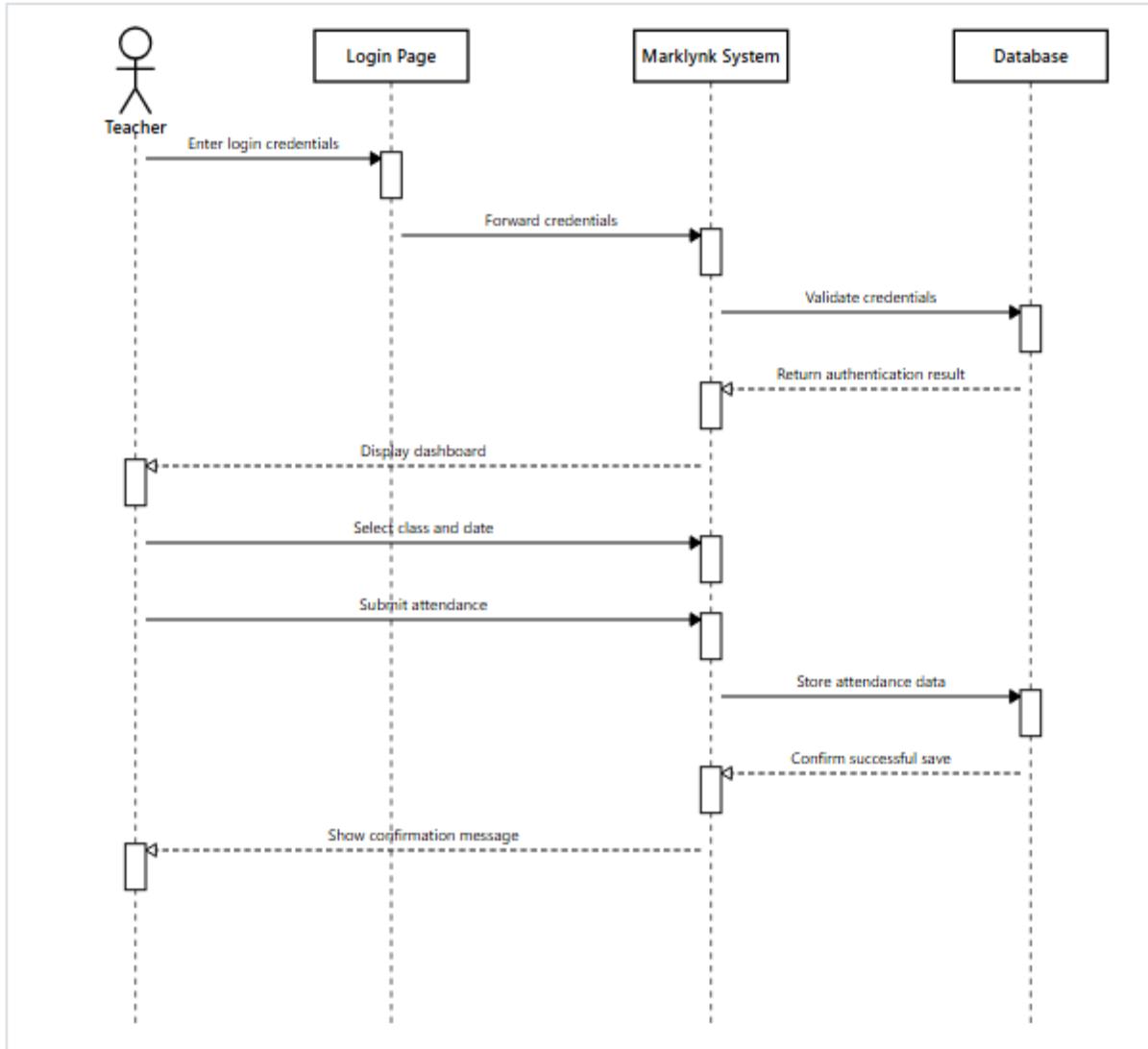
### Scenario Name: *Teacher Marks Student Attendance*

In this scenario, a teacher accesses the Marklynk system, authenticates using valid credentials, selects a class and date, and records student attendance. The system validates the user and securely stores attendance data in the database.

Participant	Description
Teacher	Initiates the process by logging in and marking attendance
Login Page	User interface for authentication
Marklynk System	Core system that processes requests
Database	Stores and retrieves user and attendance data

### Importance of the Sequence Diagram

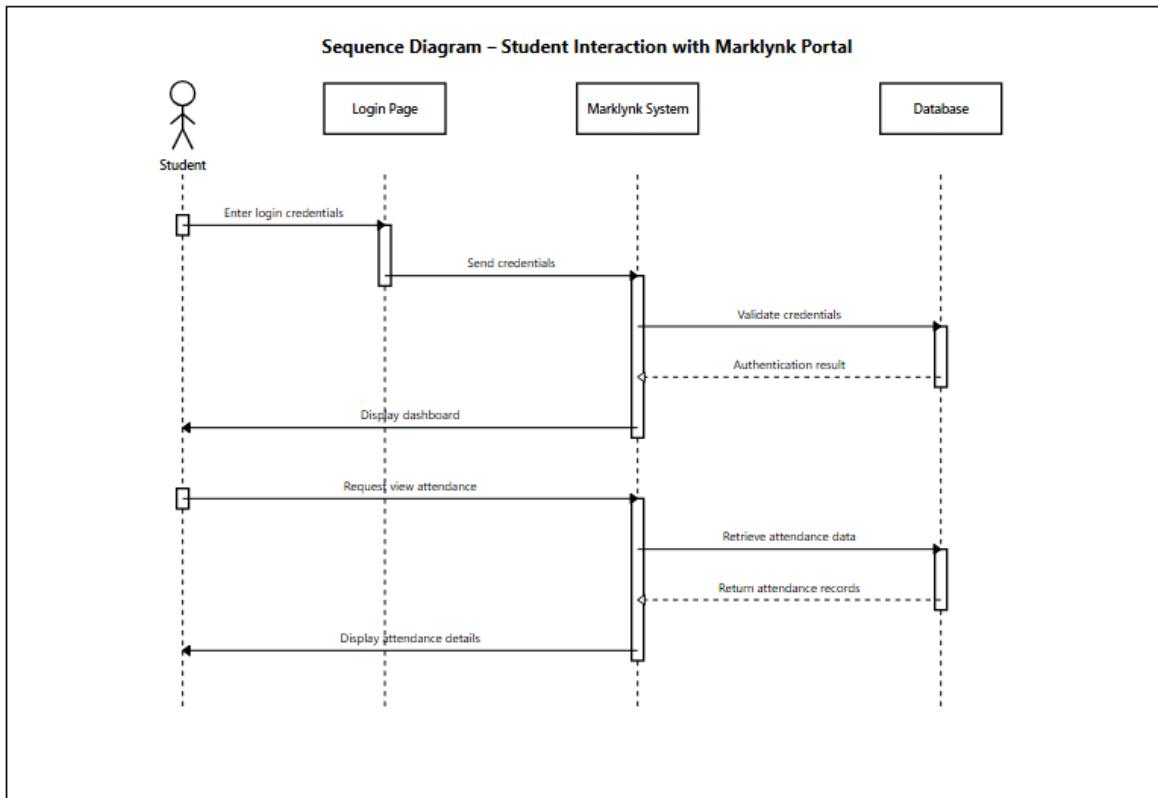
- Helps understand system logic clearly
- Ensures proper communication between components
- Assists developers during implementation
- Improves system documentation quality



## Scenario Name: Student Views Attendance

In this scenario, a student logs into the Marklynk portal using valid credentials. After successful authentication, the student accesses the dashboard and views their attendance record, which is retrieved from the database.

Participant	Description
Student	Initiates the process by logging in and requesting attendance details
Login Page	Interface for student authentication
Marklynk System	Processes student requests
Database	Stores and retrieves attendance data



### **Legend:**

- **Solid arrows:** Synchronous messages
- **Dashed arrows:** Return messages
- **White rectangles on lifelines:** Activation bars (processing duration)