Phase III:

Software design and modeling

## 1. Use Case Diagram

- Manage Student Information
- Enroll in Courses
- Manage Course Information
- Manage course registration
- View Grades
- Generate Student Report

Administrative User

- Communicate with students

Faculty

- Manage User account

System administrator

- Generate Attendace Report
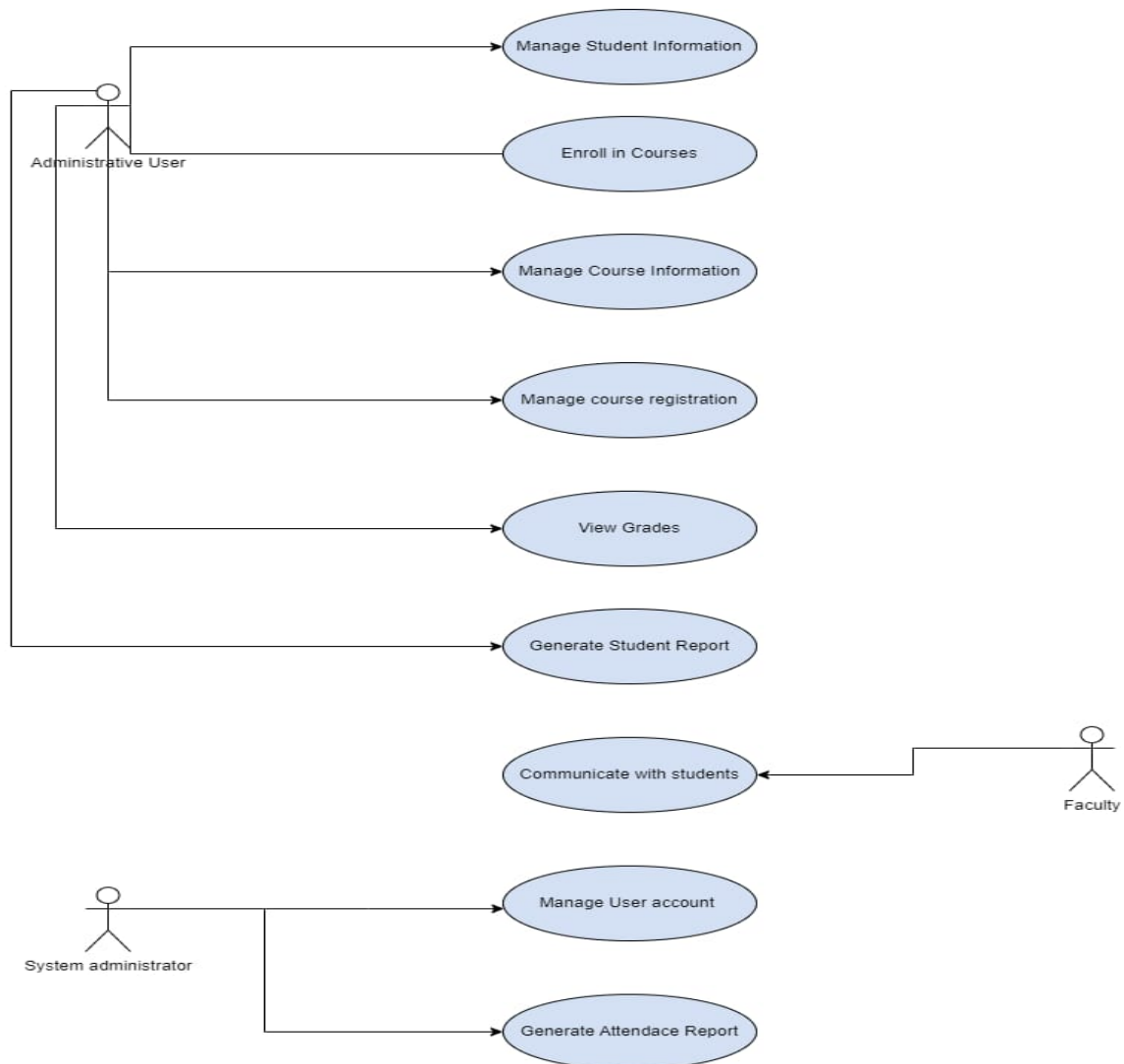
Explained: The use case diagram depicts how the end user and the system interact. In our system, the end user is the administrator user.

1. To start the system and enter the student data, the administrator user clicks the icon.
2. Next, the system administrator controls the photos associated with user accounts and gathers the data.
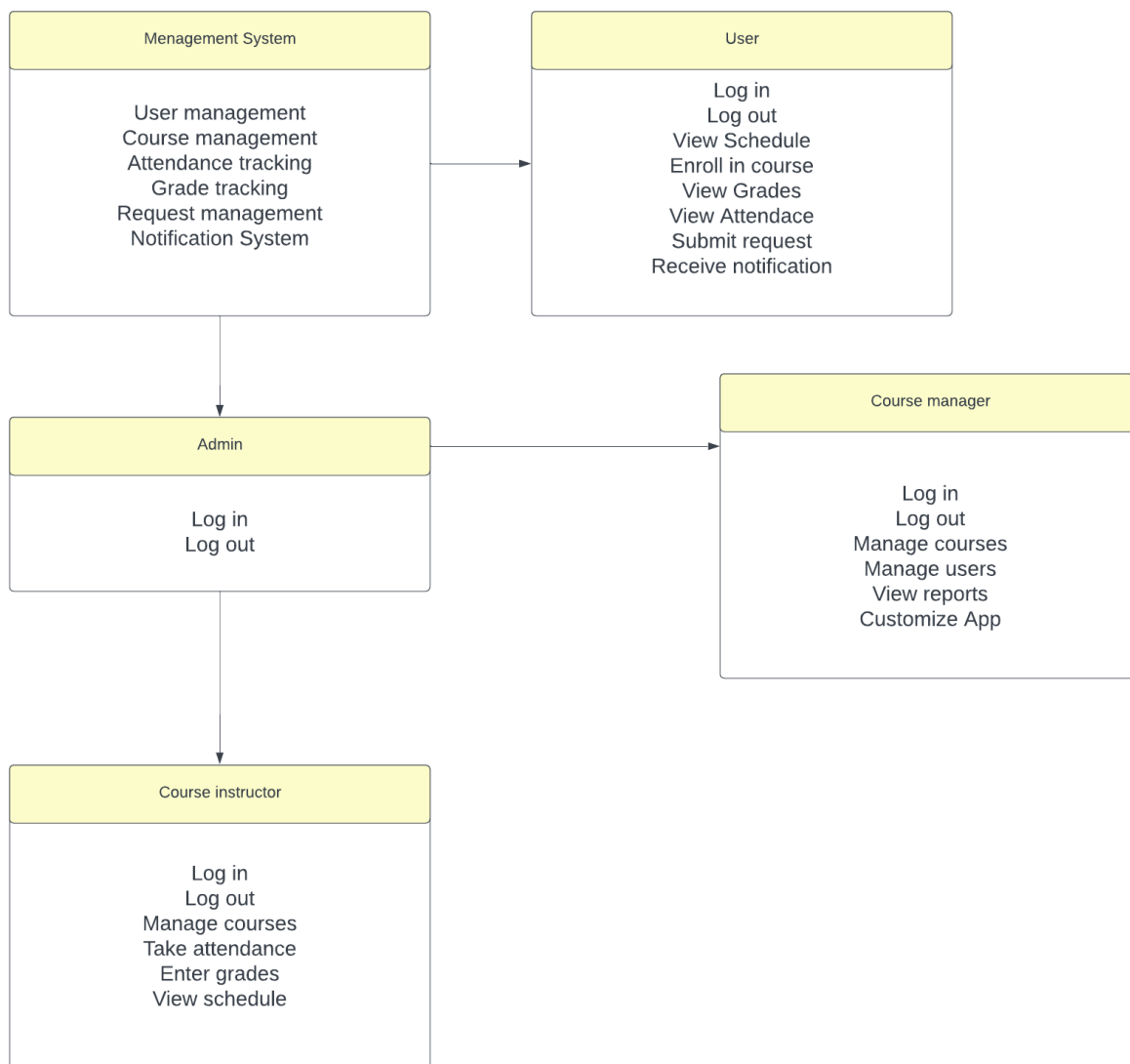3. And it's the faculty who serve as the students' point of cont

2. Sequence Diagram
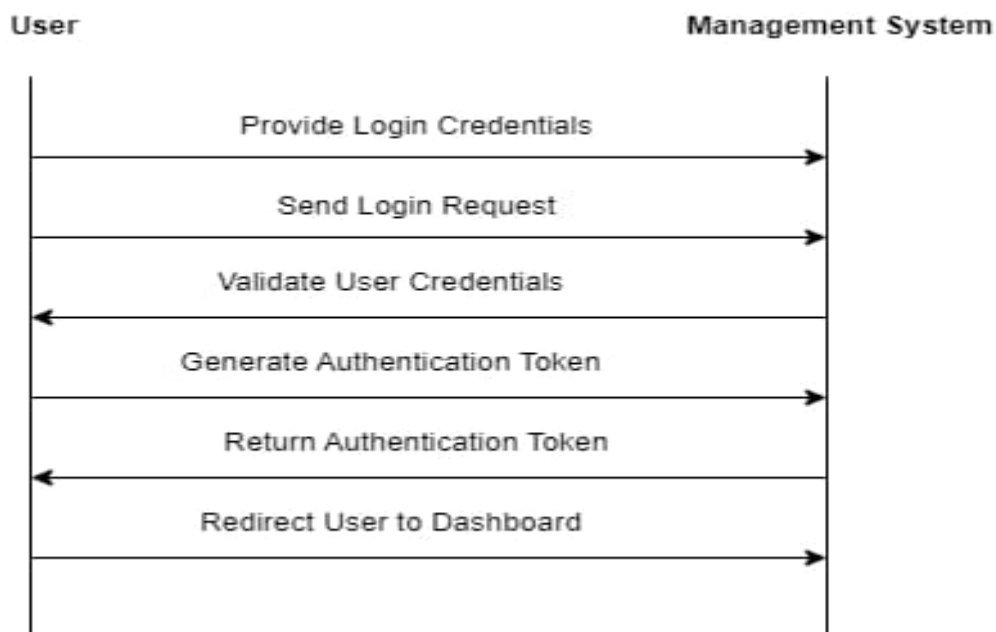
The reason a sequence diagram is a form of interaction diagram is because it illustrates the interactions between a collection of items and the order in which they occur.
The party interacting with the system is known as an actor. The user is the actor in this scenario.

1. The user sends a login request and credentials to the system in the initial interaction.
2. The return message is shown as a dashed line. The controller will verify user credentials after identifying them and making a request.

3. Class Diagram

Menagement System

User management
Course management
Attendance tracking
Grade tracking
Request management
Notification System

User

Log in
Log out
View Schedule
Enroll in course
View Grades
View Attendace
Submit request
Receive notification

Admin

Log in
Log out

Course manager

Log in
Log out
Manage courses
Manage users
View reports
Customize App

Course instructor

Log in
Log out
Manage courses
Take attendance
Enter grades
View schedule

Explanation:
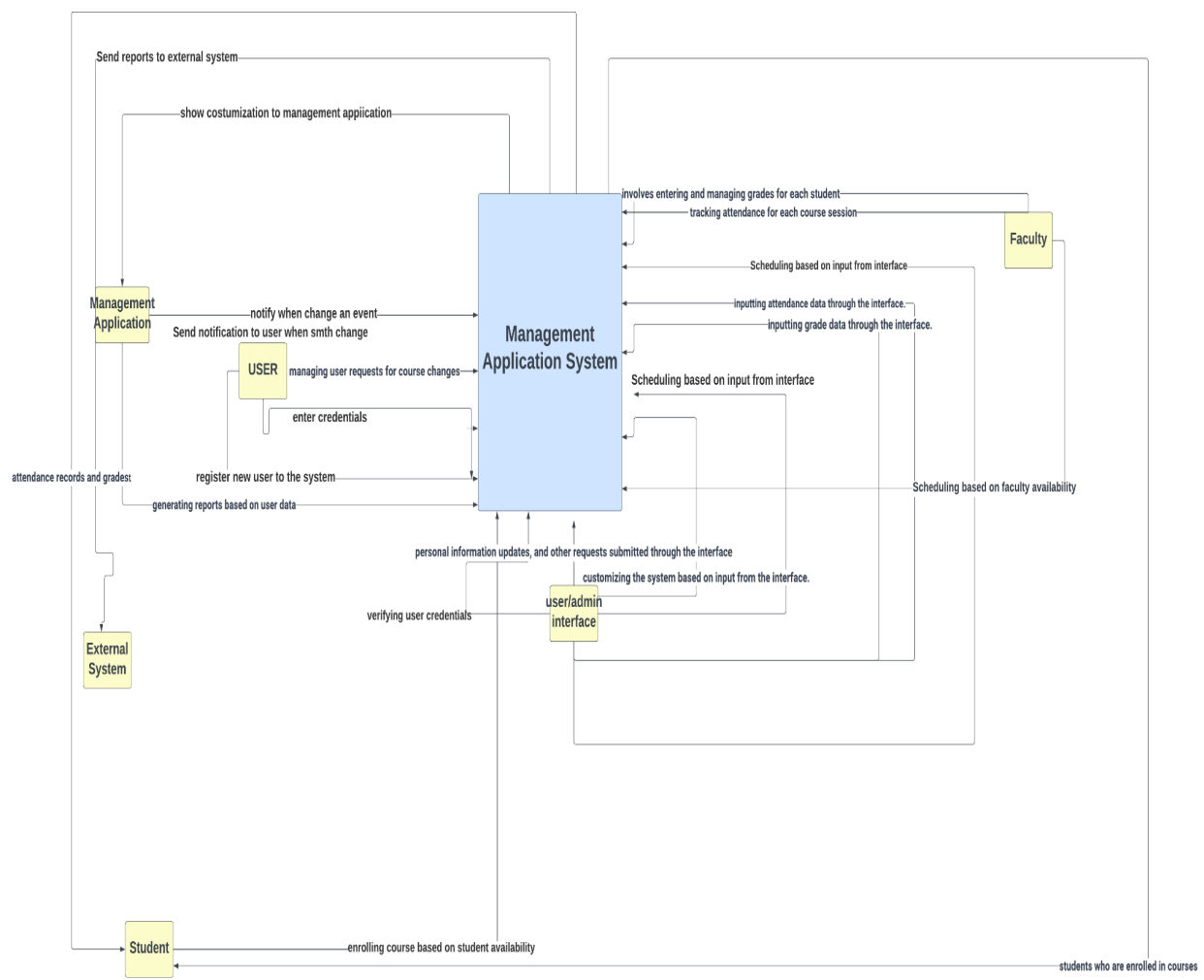
We have used the classes product, management system, user, admin, course manager, and course instructor while keeping in mind that the program uses an MVC architecture.

A function in the management system class asks the user for the URL of the filtered website. then gives it back to the controller. The admin class acts as a liaison between the course manager and instructor.

4.Context Model

5. Data-driven model

show costumization to management application

Management Application — notify when change an event → Notification System

Customization

generating reports based on user data

Send notification to user when smth change

customizing the system based on input from the interface.

Reporting System

register new user to the system → USER → managing user requests for course changes → Request Management

Send reports to external system

enter credentials

personal information updates, and other requests submitted through the interface

External System

User Registration

User Authentication ← verifying user credentials ← user/admin interface

Grade Management ← inputting grade data through the interface.

involves entering and managing grades for each student

Attendance Menagement ← inputting attendance data through the interface.

tracking attendance for each course session

Faculty — Scheduling based on faculty availability → Course Scheduling ← Scheduling based on input from interface

attendance records and grades

Student — enrolling course based on student availability → Course Enrollment ← Scheduling based on input from interface

students who are enrolled in courses

START

Enter Course Detalis

Check Course Availability

Is course available?

No

Course is not availbale

Yes

Select Course

Submit Enrollment

Payment Processing

Confirm Enrollment

END