Final Report

Online Learning Platform

Group Number: 12

Group Members:

Student ID	Student Name
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System request for Online Learning Platform

Project Sponsor	Jihan Alam
Business Need	-To solve online based learning system - Spread knowledge -Making remote examination secure and easier. -Making submissions Easier -Tracking Grade
Business Requirements	- User can Login/Registration using email and password - User can view course and topic - User can Enroll into a course - User can watch videos to the respective course - User can participate in the Quiz - User can submit Assignment - User can monitor progress - Faculty can upload videos to respective course - Faculty can offer Quiz - Faculty can offer Assignments - Admin can add course to user - Admin can assign faculty to a course - Admin can make grade sheet from progress
Business Values	- Advertisement - 100000 - Income respective learning org - 500000
Special Constraints	User's privacy protection (User can be fully anonymous while using the site)

Requirement Analysis

Functional Requirement:

1. Registration:
If a user wants to get access full functionality of the platform, he needs to register first
- Valid email
- Unique username
- String password

2. Login:
Users can login by entering valid user id and password.
- Valid username and password

3. Maintain Dashboard:
User can maintain dashboard.
- Edit Profile
- Change password
- Search and Enroll into course
- View course details
- Watch weekly videos for respective course

4. Taking quiz test:
Users can take course tests weekly and the test will measure their progress based on the topic they covered
- View questions provided by the faculty
- Input answer of the questions
- Measurement based on users input
- Record progress

5. Submit Assignment:
Users can submit assignment by the site
- Faculty will post Assignment question
- Submission link will be provided followed by a deadline
- User have to submit assignment within the deadline
- Faculty will evaluate the assignment and provide result
- Progress for assignment will be recorded

5. Progress:
User can monitor Progress

- User can monitor progress daily
- User can see the result for quiz
- User can see the result for assignments

6. Tracking

Faculty and administration can

- Faculty can track a student progress
- Admin can create grade sheet from student progress
- Academy can keep track of every student's grade record

Non - Functional Requirement:

1. Operational:

- There will be a web admin interface to add new course and student and update teacher student database.
- Currently the client app is only in web, in future it will be available in mobile platforms like android and ios.

2. Performance:
- When giving quiz system should record progress precisely.
- While submitting one quiz the data should not manipulate other quiz. Also quiz of other students.
- Progress should update as soon as the quiz is done submission.

3. Security:
- User should only track the dashboard. They should not interact with the database directly.
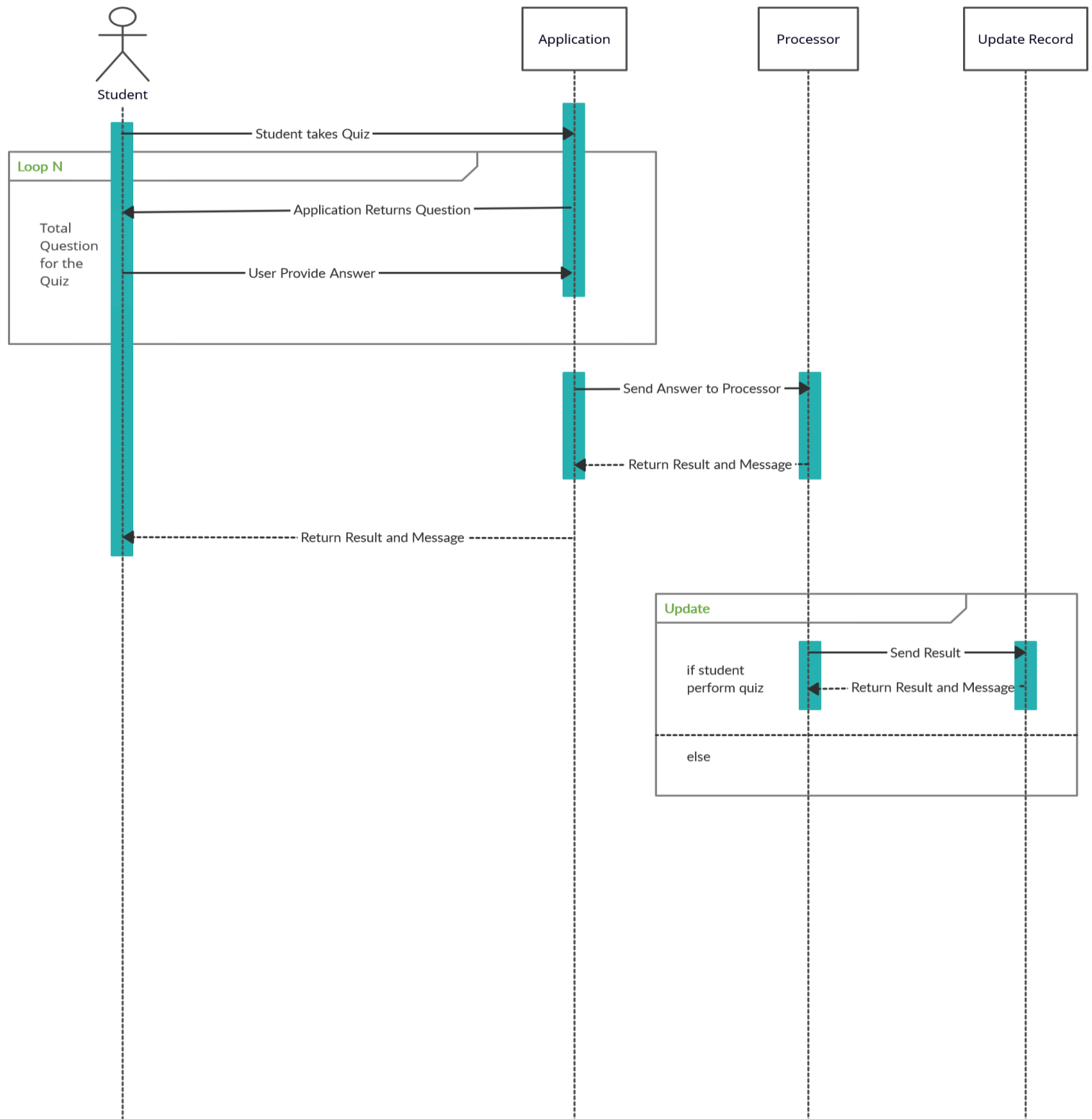- As the product contains sensitive information, We need to ensure users' data security.

4. Cultural and Political:
- Personal information is protected by the country's data protection law.
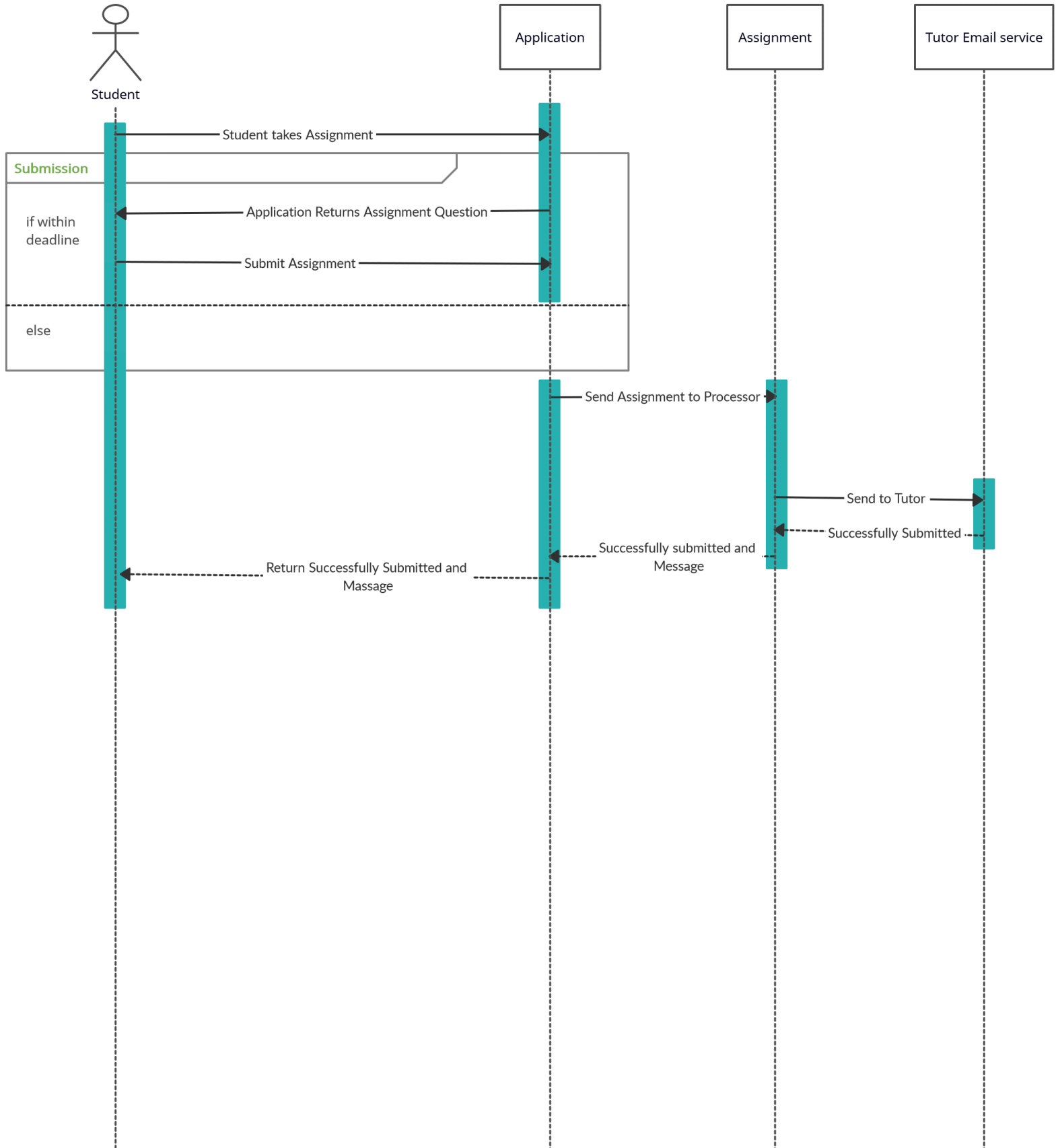- Any kind of content a user should be bound by the country's digital act law.
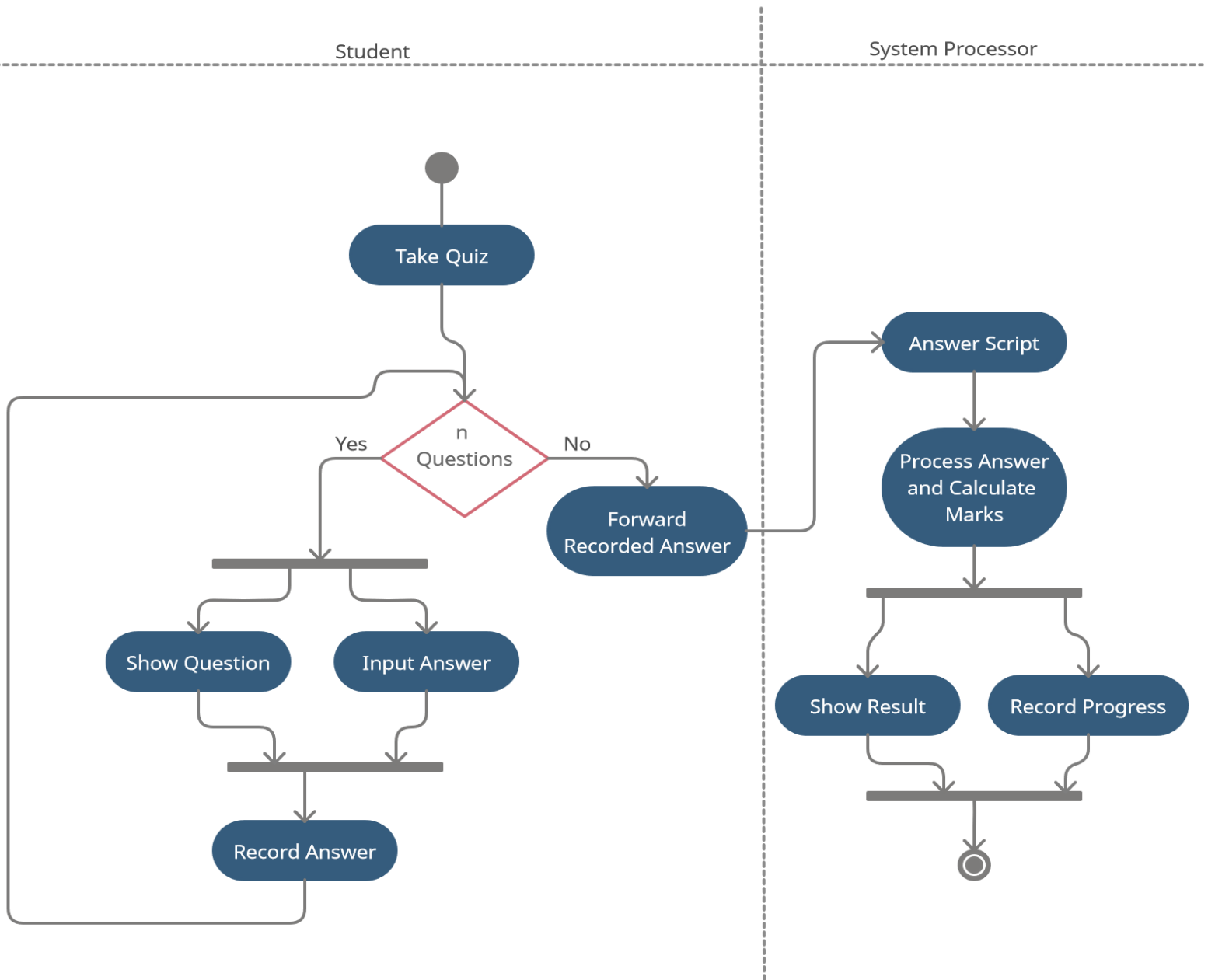
Use Case Diagram
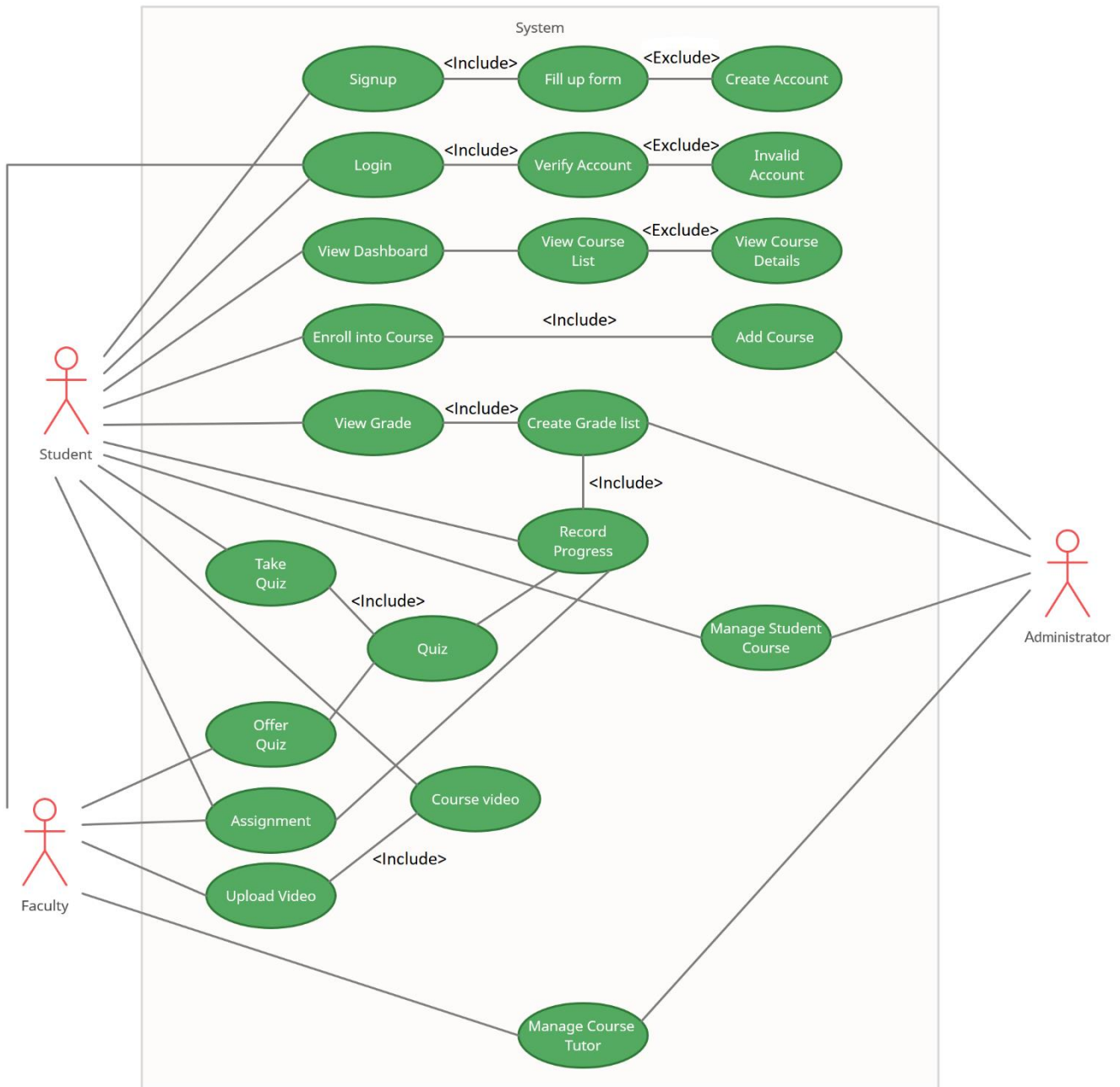
Sequence Diagram for Quiz
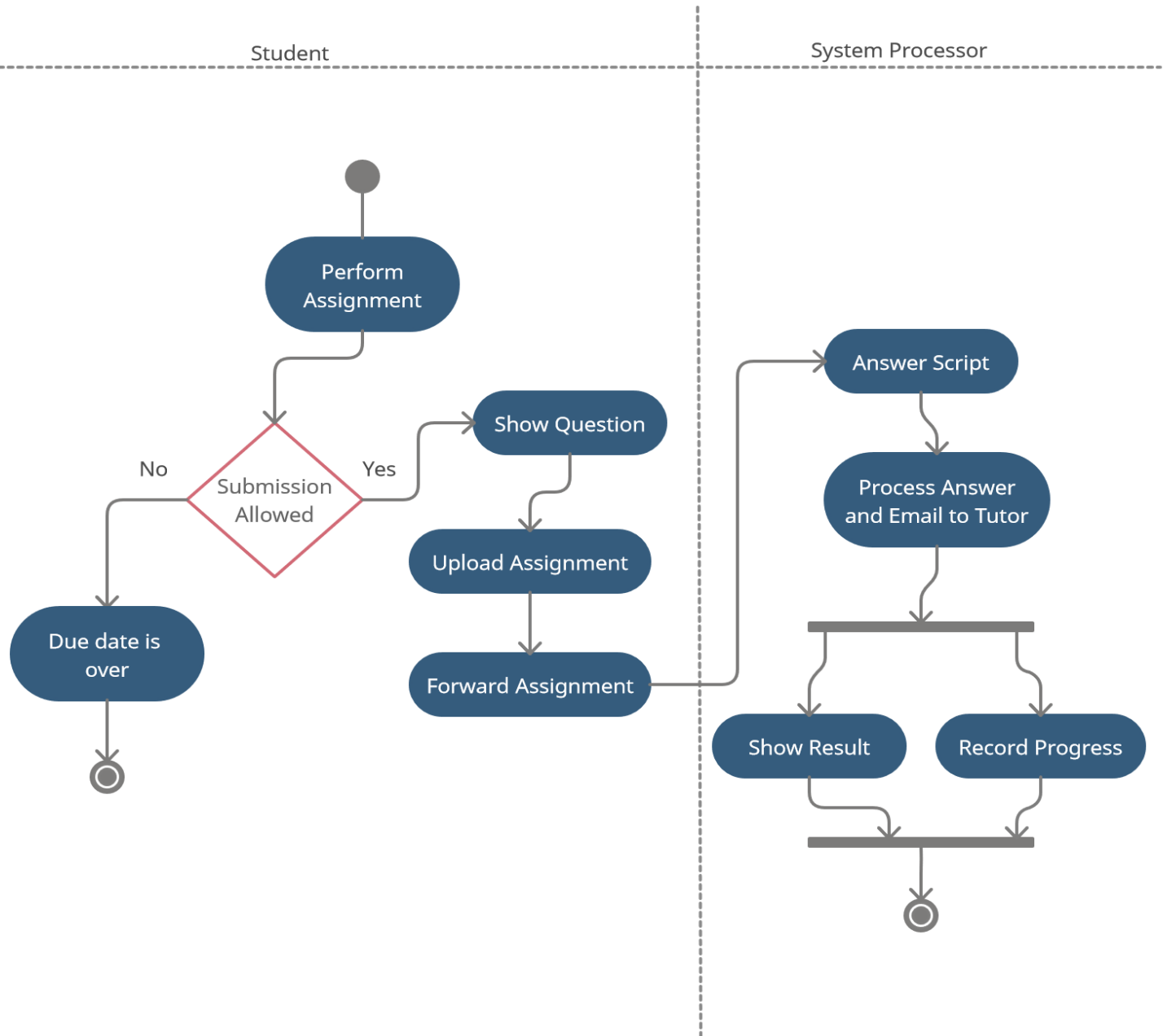
Sequence diagram for Assignment

Activity Diagram

Quiz processing

Student | System Processor

- Take Quiz
- n Questions
  - Yes
  - No
- Show Question
- Input Answer
- Record Answer
- Forward Recorded Answer
- Answer Script
- Process Answer and Calculate Marks
- Show Result
- Record Progress

Activity Diagram

Assignment Submission

Student | System Processor

- Perform Assignment
- Submission Allowed
  - No → Due date is over
  - Yes → Show Question
- Show Question
- Upload Assignment
- Forward Assignment
- Answer Script
- Process Answer and Email to Tutor
- Show Result
- Record Progress

State Machine Diagram

Data Flow Diagram