

# **Online Learning Platform**

## **Diploma in Software Engineering**

### **Final Project Documentation**

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**Year Of Submission 2023**

# **Online Learning Platform**

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**21/11/2023**

“The project is submitted in partial fulfillment of the requirement of the  
Diplomain Software Engineering of National Institute of Business  
Management.”

## **Declaration**

“I certify that this project does not incorporate without acknowledgement, any material previously submitted for a Diploma in any institution and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my project report, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations.”

## **Preamble**

### **Abstract**

In the fast-changing world of education, Initbe Holdings (Pvt) Ltd is embracing innovation to bring about a shift in traditional learning through technology integration. The current educational landscape is witnessing a global increase in technology use, reshaping how we learn. Founded with a commitment to adapting to evolving educational needs, Initbe Holdings is determined to turn regular learning into an improved online platform. Acknowledging the challenges faced in providing effective educational services, Initbe Holdings understands the drawbacks of relying on external apps and lacking a fully functional website. The current system deals with issues like payment delays, time management problems, reliance on external services, concerns about data privacy, and an inconsistent user experience. In response, an online learning platform designed to overcome these challenges. This platform will feature an easy-to-use interface, include a secure payment system, a robust feedback and rating system, personalized tutor selection, advanced usage analytics, and a dedicated communication platform. These features aim to redefine education by providing a secure, efficient, and enriching online learning environment.

## Acknowledgment

We extend our sincere gratitude to several individuals who played a vital role in supporting us throughout this project. Our foremost thanks go to our project supervisor, Miss Chandula Rajapaksa, for her passion, patience, constructive feedback, insightful information, and guidance. Her extensive knowledge, professional expertise, and experience were instrumental in bringing this project to completion. We would also like to express our heartfelt appreciation to NIBM for granting us the opportunity to participate in the Diploma Programme. A special thank you to our classmates who offered support when needed. Lastly, we convey our gratitude to our parents for their steadfast support and various forms of assistance.

Thank You

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# **Chapter 1: Introduction**

## **1.1 Introduction of the Organization**

Initbe Holdings (Pvt) Ltd is an education focused organization that aims to provide effective learning solutions for school children with a strong aim on enhancing their knowledge and learning processes. The organization's commitment lies in offering effective coaching methods and a tailored vision, creating an ideal learning environment that fosters academic success and self-confidence. Through the integration of innovative learning materials, personalized study areas, and regular assessments, students are motivated and engaged, enabling them to excel in their studies.

## **1.2 Organization Structure**

Initbe Holdings operates under a hierarchical structure led by Founder and CEO, Mr. Bruno Arulpragasam. He provides general guidance and leadership for the company. Supporting him are key team members responsible for specific functions:

Mr. Noah Selvanayagam is the Head of Operations, overseeing day-to-day activities, study model management, and supply procurement.

Ms. Lucksicca Christy specializes in interior design, focusing on creating innovative learning environments and managing design projects.

Ms. Shamalee Bandara brings expertise in special needs education, contributing to the application of 21st-century skills and providing a student perspective.

Ms. Pavithra Mayuri serves as the Head of IT, responsible for website design, maintenance, and ensuring IT infrastructure aligns with organizational goals.

## **1.3 Current Operations in Organization**

Currently, Initbe Holdings operates by assisting students with their homework doubts, providing personalized tutoring services based on their specific subject needs and facilitating communication between students and tutors through third-party mediums. The organization focuses on addressing students' individual learning requirements and providing tailored support to enhance their academic performance. Through this approach, Initbe Holdings aims to create a conducive learning environment where students can receive personalized attention

and guidance, improving their understanding and confidence in their studies.

## **1.4 Users and Responsibilities Organization**

**Students:** Primary users of the web application responsible for actively engaging with learning materials, completing assignments, and seeking guidance from Instructors.

**Instructors:** Responsible to publish Courses and to provide personalized guidance (Additional Online Video Session) , clarifying doubts, and facilitating subject-specific learning for students.

**Initbe Staff/Administrators:** Manage user registrations, profiles, database maintenance, technical support, and payment processing.

## **1.5 Problem Definition**

Initbe Holdings currently faces limitations in delivering effective educational services due to their reliance on third-party applications and the absence of a fully functioning website.

These limitations include:

- **Payment Issues:** The current model relies on third-party providers for payment processing, which can result in delays and inconvenience for both Initbe Holdings and parents. Many parents prefer to pay after receiving the services.
- **Time Management:** This becomes a challenge in the current model as the user base of Initbe Holdings expands. With an increasing number of students seeking assistance, tutors may face difficulties in answering multiple questions simultaneously, leading to delays and decreased efficiency in managing tutoring sessions.
- **Dependency on Third-Party Providers:** Relying solely on third-party providers for communication and other functionalities introduces the risk of limited control and potential disruptions in service when the demand for Initbe Holdings' services grows.
- **Lack of Data Privacy and Security:** Utilizing third-party platforms for communication and payment processing raises concerns about data privacy and security. Initbe may have limited control over the protection of sensitive student information, potentially compromising data confidentiality
- **Inconsistent User Experience:** The use of multiple third-party platforms for communication and payment creates a fragmented user experience. Students and

tutors may face difficulties navigating and switching between different platforms, leading to a lack of cohesion and convenience in accessing Initbe's services.

## 1.6 Project Objectives

The objective of this project is to develop a comprehensive online learning platform that enhances current operation method of Initbe Holdings. The objective of this project is to create an innovative online learning platform that revolutionizes Initbe Holdings' operations.

The platform aims to achieve the following key objectives:

- Enhanced Accessibility: Develop a user-friendly, intuitive web application ensuring seamless access to Initbe's services and resources across devices and platforms, empowering students and tutors with easy accessibility.
- Effective Communication and Collaboration: Implement real-time communication features (chat, video conferencing) to facilitate seamless interaction between students and tutors. Create a centralized platform for sharing learning materials, promoting collaborative learning experiences.
- Data Privacy and Security: Prioritize data privacy by implementing robust encryption measures, secure payment processing, and adhering to industry best practices to safeguard sensitive student information.
- Improved Time Management: Create features that optimize tutors' productivity, enabling efficient time management to handle multiple student queries simultaneously, reducing response times and enhancing the learning experience.
- Diverse Course Offerings: Curate a broad spectrum of high-quality courses across various disciplines and skill levels, regularly updated to maintain relevance and cater to diverse global learning needs.
- Interactive Learning Experience: Integrate interactive elements like quizzes and assignments to engage students actively and reinforce their learning.
- Feedback Mechanism: Establish a feedback system for students to review courses and instructors, fostering a quality-centric environment. Enable Students to provide

## 1.7 Proposed Solution

Our proposed solution is to develop a comprehensive web application as an online learning platform for Initbe Holdings. The platform will offer the following key features:

- User-Friendly Interface: A visually appealing interface and easy to navigate, with clear categorization of services, resources, and communication features.
- Integrated Payment System: Implement a secure and integrated payment system within the web application, allowing parents to make payments conveniently after receiving the services.
- Feedback and Rating System: Implement a feedback and rating system where students and parents can provide feedback on tutors and their services.
- Course Selection: Ability for students to select Courses based on their preferences, such as Course category, Course rating, Course Price
- Usage Analytics: Implement analytics tools to track and analyze student usage patterns, including the number of sessions, total hours spent, and money spent on tutoring services.
- Communication platform: Incorporate a built-in chat and call feature within the web application, enabling real-time communication between students and tutors.

## **1.8 Chapter Summary**

Initbe Holdings is an education-focused organization dedicated to enhancing learning processes and academic success for school children through effective coaching methods and a tailored learning environment. Currently, the organization faces limitations in delivering educational services due to the absence of a fully functioning website. To overcome these challenges, Initbe Holdings plans to develop a comprehensive web application. This online learning platform will feature a visually appealing and user-friendly web application, integrating a secure payment system, implementing feedback, and rating mechanisms, enabling tutor selection based on preferences, incorporating usage analytics, and facilitating real-time communication between students and tutors. By implementing this solution, Initbe Holdings can streamline operations, improve the learning experience, ensure data security, and provide a cohesive and efficient platform for students and tutors to engage in personalized and successful learning journeys.

## **Chapter 2: Methodology**

### **2.1 Introduction**

This chapter outlines the methodology for the development and implementation of the proposed web application for Initbe Holdings. It describes the data collection method, software process model, software development tools, testing strategies, implementation plan, and provides a clear roadmap of the following software.

### **2.2 Data Collection Method**

The data collection for this project will involve a comprehensive approach, utilizing interviews, observation, and document analysis. In-depth interviews will be conducted with stakeholders such as Initbe staff. These interviews will capture their perspectives, requirements, and expectations for the online learning platform. Document analysis will be conducted, reviewing progress reports, study materials, and assessment records to extract relevant data. These data collection methods will provide a comprehensive understanding of stakeholder needs, existing operations, and valuable information to inform the development of the online learning platform.

### **2.3 Software Process Model**

For this project, the most suitable software process model is Agile. Agile is an incremental, iterative technique that places an enormous value on adaptability, teamwork, and ongoing progress. It aligns with the proposed solution by allowing for regular iterations and releases, incorporating user feedback, and responding to changing requirements. Agile's adaptability will enable the development team to deliver a high-quality online learning platform that meets the evolving needs of Initbe Holdings.

## **2.4 Software Development Tools**

To support the development of the online learning platform, a set of essential software development tools will be utilized.

- Integrated Development Environment (IDE): Visual Studio Code for coding and development tasks.
- Front-end Design: HTML, CSS, JavaScript, and frameworks (e.g., React, Angular) for creating the web application's front-end functionality and design.
- Diagramming: Draw.io for creating UML diagrams and visualizing system architecture and workflows.
- Design and Prototyping: Figma for collaborative design, creating mockups, wireframes, and interactive prototypes.

## **2.5 Testing Strategies**

The Initbe web application will undergo a comprehensive testing strategy to ensure quality and reliability. This includes unit testing for individual components, integration testing to ensure seamless functionality, and system testing for end-to-end verification. User Acceptance Testing (UAT) involving stakeholders will evaluate usability, performance, and satisfaction. Additionally, security testing will be conducted to identify vulnerabilities and protect data. Through these testing techniques, the Initbe web application will be thoroughly evaluated to deliver a reliable and high-quality online learning platform.

## **2.6 Implementation Plan**

The implementation plan details the step-by-step process and timeline for developing and deploying the Initbe web application. The key activities involved in the implementation plan are as follows:

- Requirement Analysis: Gather and analyze user requirements, incorporating feedback from Initbe staff and stakeholders.
- System Design: Create the architectural design and user interface design based on the identified requirements.
- Front-end Development: Implement the front end of the web application using HTML, CSS, JavaScript, and relevant frameworks.

- Back-end Development: Develop the back end of the web application using suitable programming languages and frameworks.
- Database Design and Development: Design and implement an efficient database structure for storing user data, progress tracking records, and study materials.
- Integration and Testing: Integrate the front-end, back-end, and database components and conduct thorough testing to identify and resolve any issues or bugs.
- Deployment: Prepare the web application for deployment by selecting an appropriate hosting platform or server.

## **2.7 Chapter Summary**

The methodology for the development and implementation of the proposed web application for Initbe Holdings follows a systematic approach. Data collection involves interviews, observation, and document analysis to understand stakeholder needs. The Agile software process model is adopted, enabling iterative development and flexibility. Software development tools include Visual Studio Code, HTML, CSS, JavaScript, React/Angular, Draw.io, and Figma for coding, design, and prototyping. Testing strategies encompass unit testing, integration testing, system testing, user acceptance testing (UAT), and security testing. The implementation plan outlines activities such as requirement analysis, system design, front-end and back-end development, database design, integration and testing, and deployment. By following this methodology, the Initbe web application will be developed, tested, deployed, and maintained effectively, providing an innovative online learning platform for Initbe Holdings.

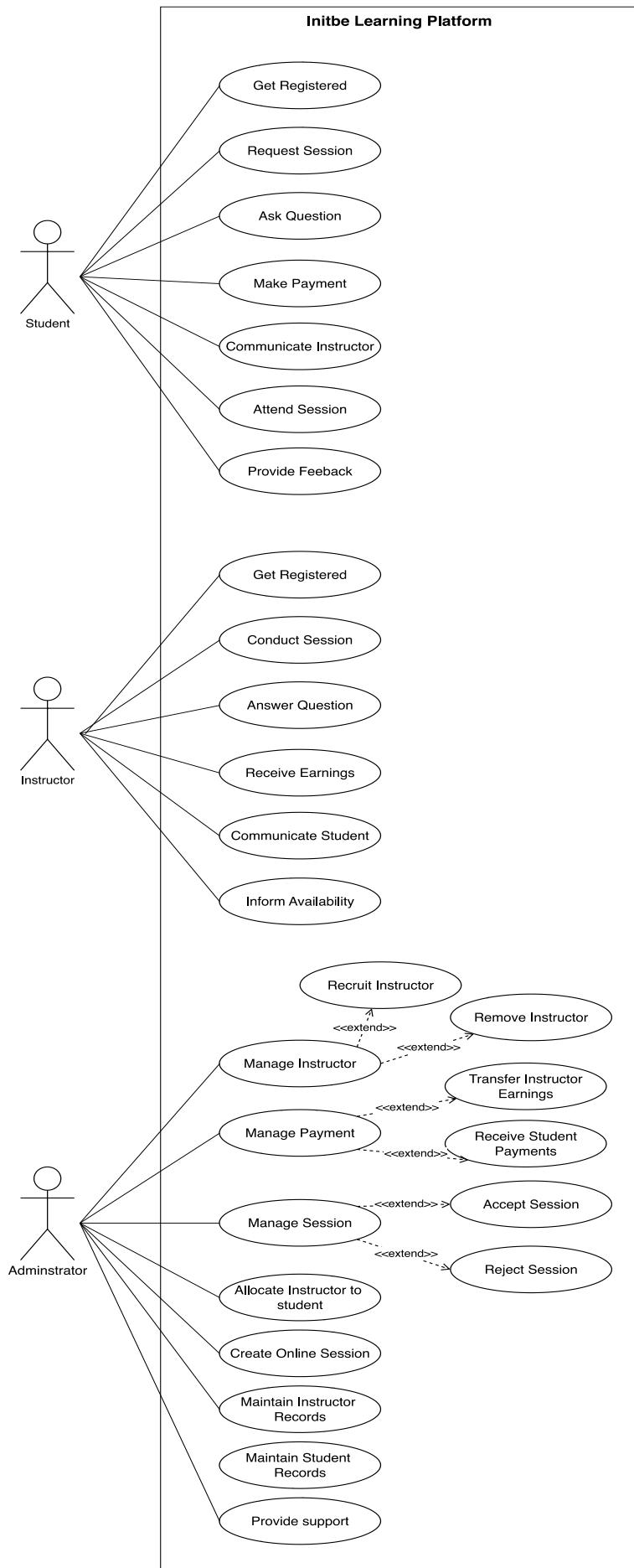
## **Chapter 3: Analysis**

### **3.1 Introduction**

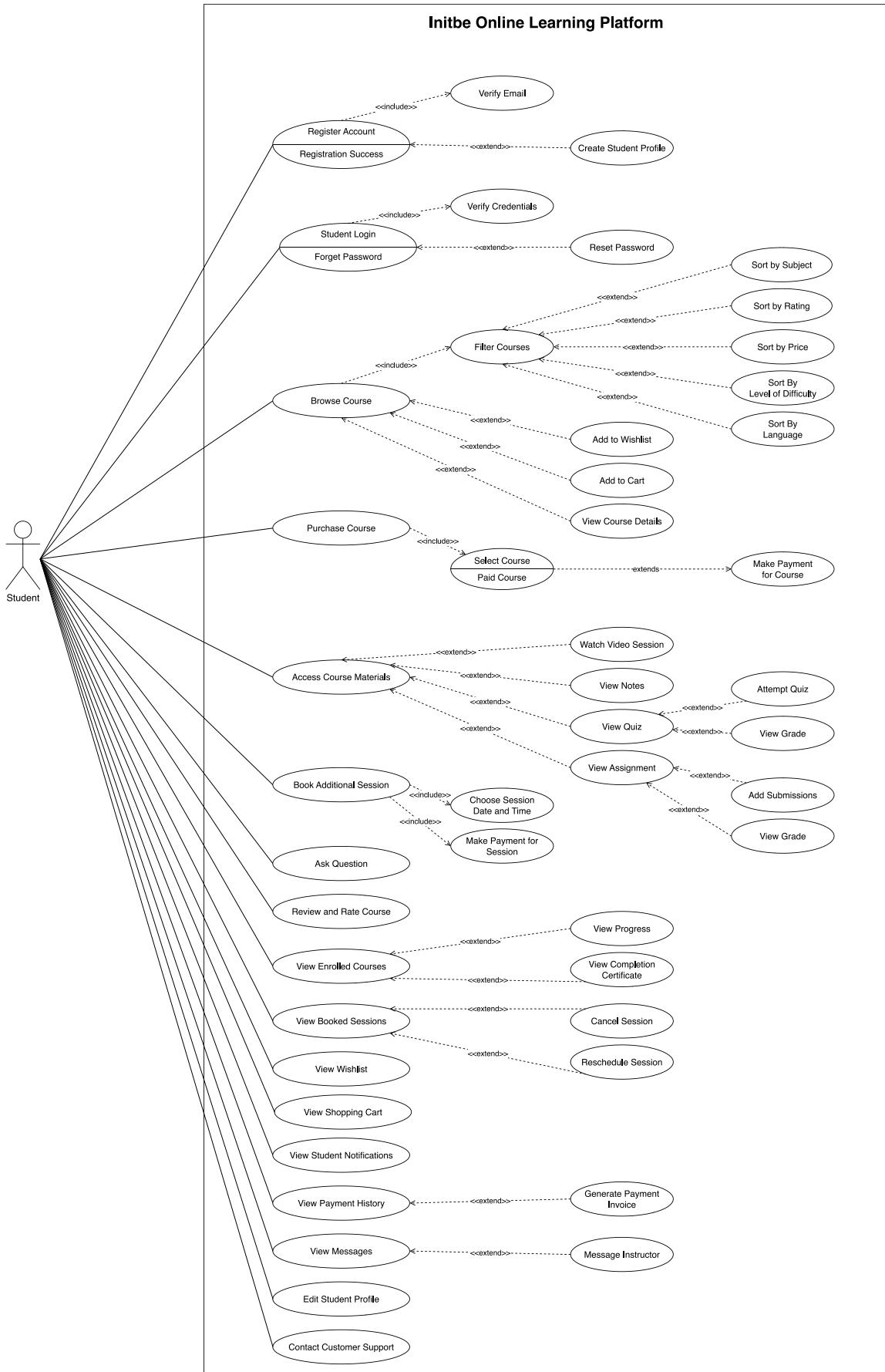
This chapter examines the current system in relation to the suggested software solution. It mainly breaks down UML diagrams, class diagrams, and database entity connection diagrams. These visuals help illustrate the essence and accessibility of the proposed solution. Additionally, they highlight which entities and data will be retained once the software solution is developed.

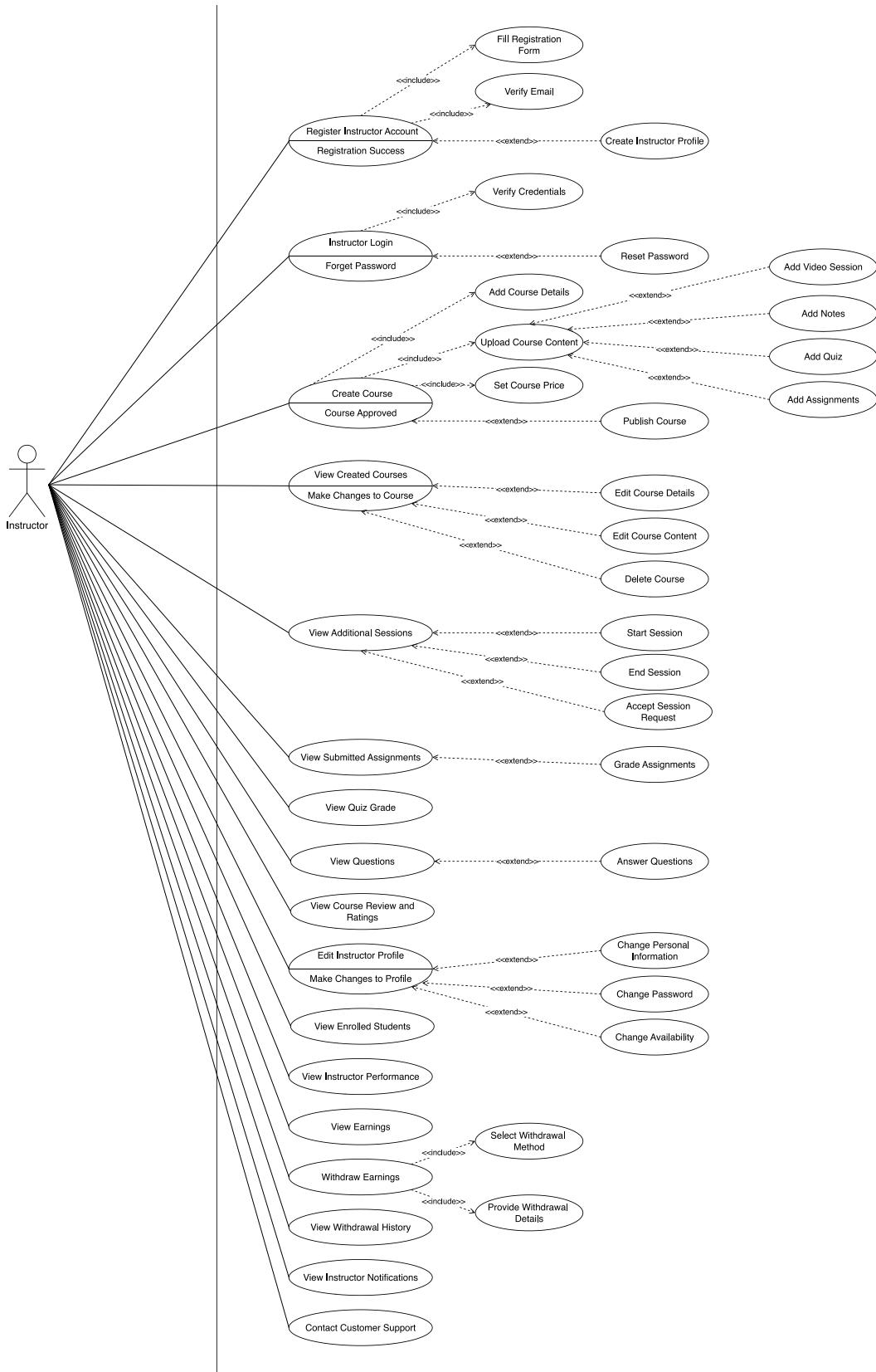
### **3.2 UML Diagram**

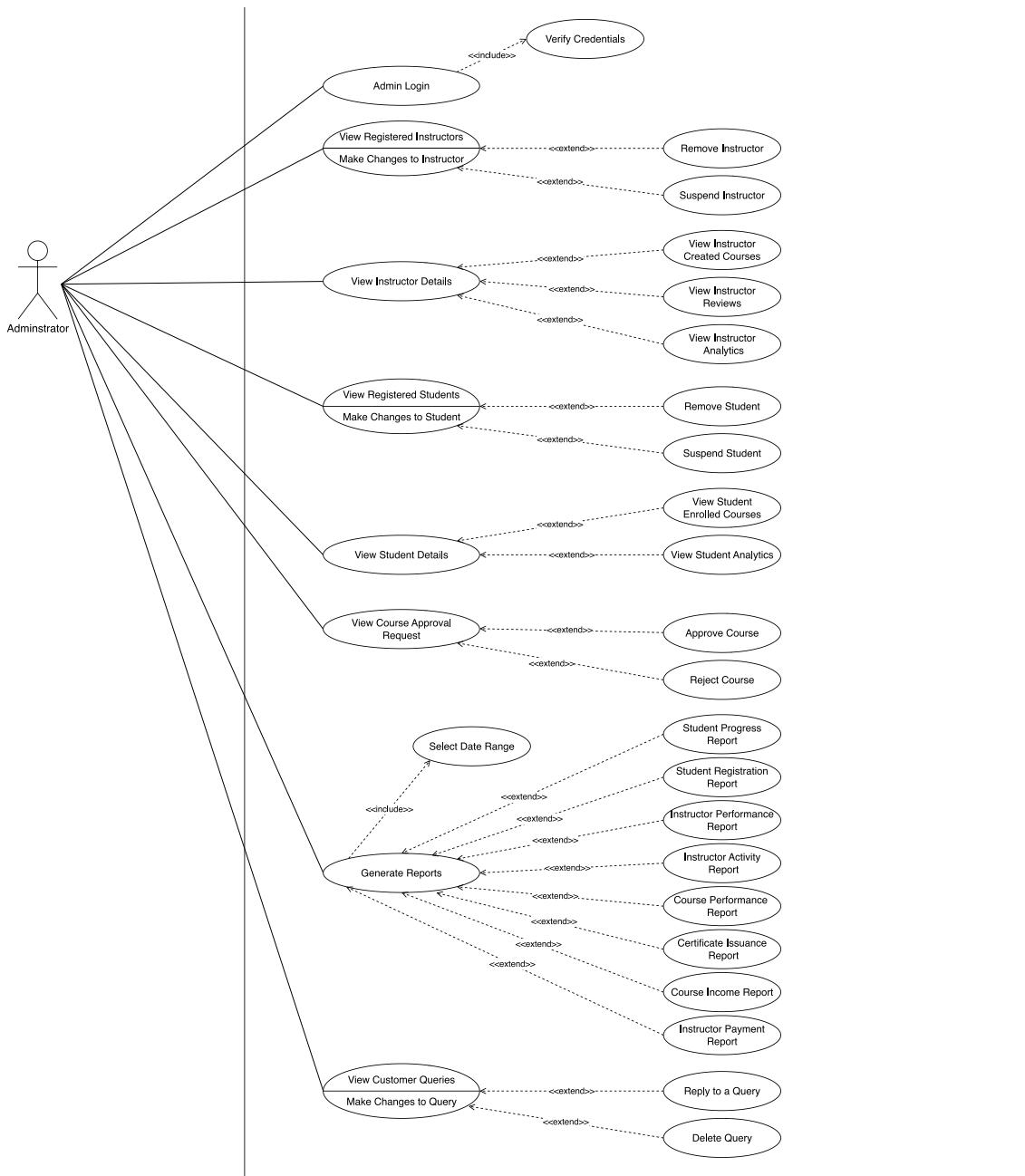
#### **3.2.1 Use case Diagram for Existing System**



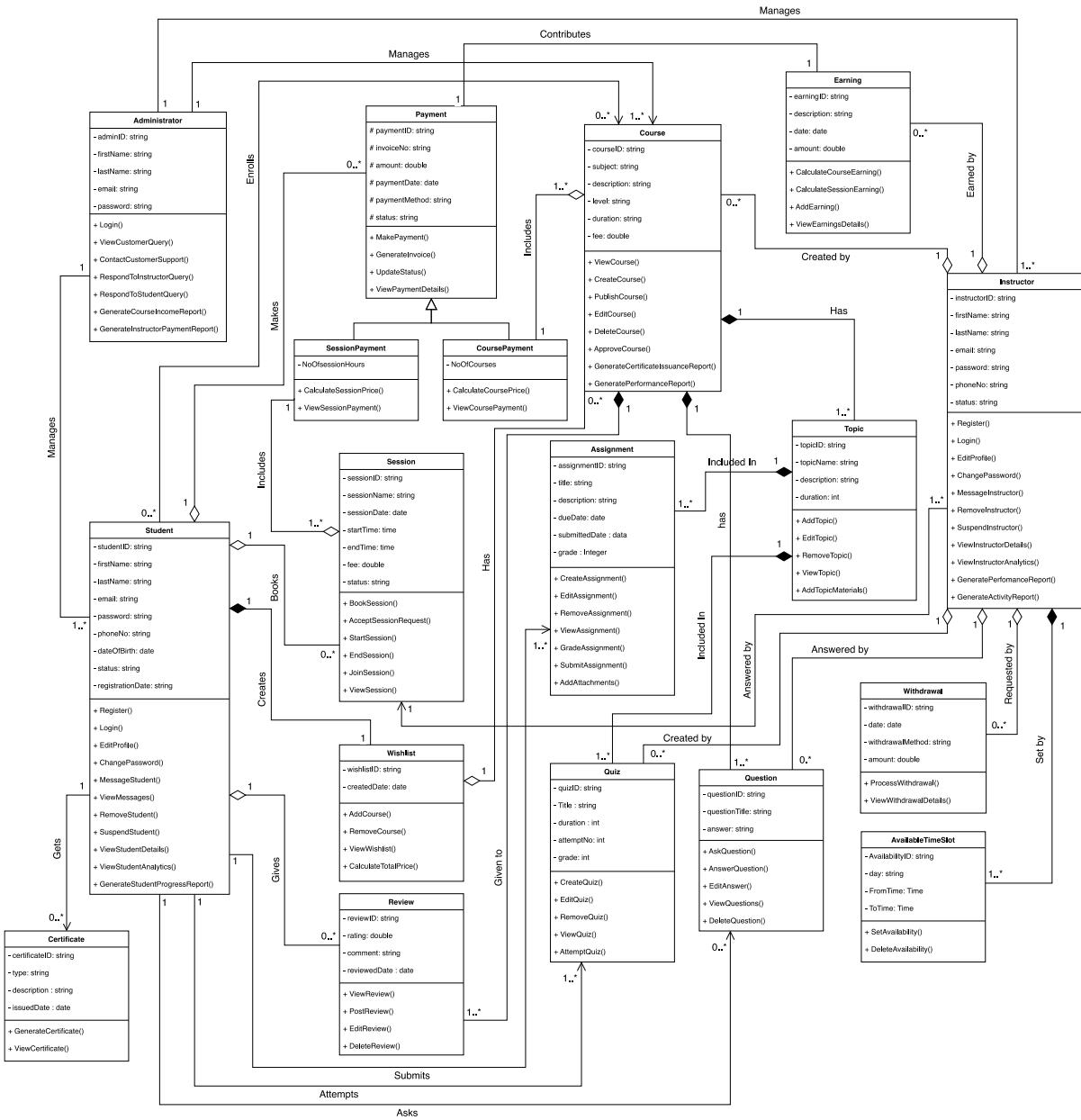
### 3.2.2 Use case Diagram for Proposed System





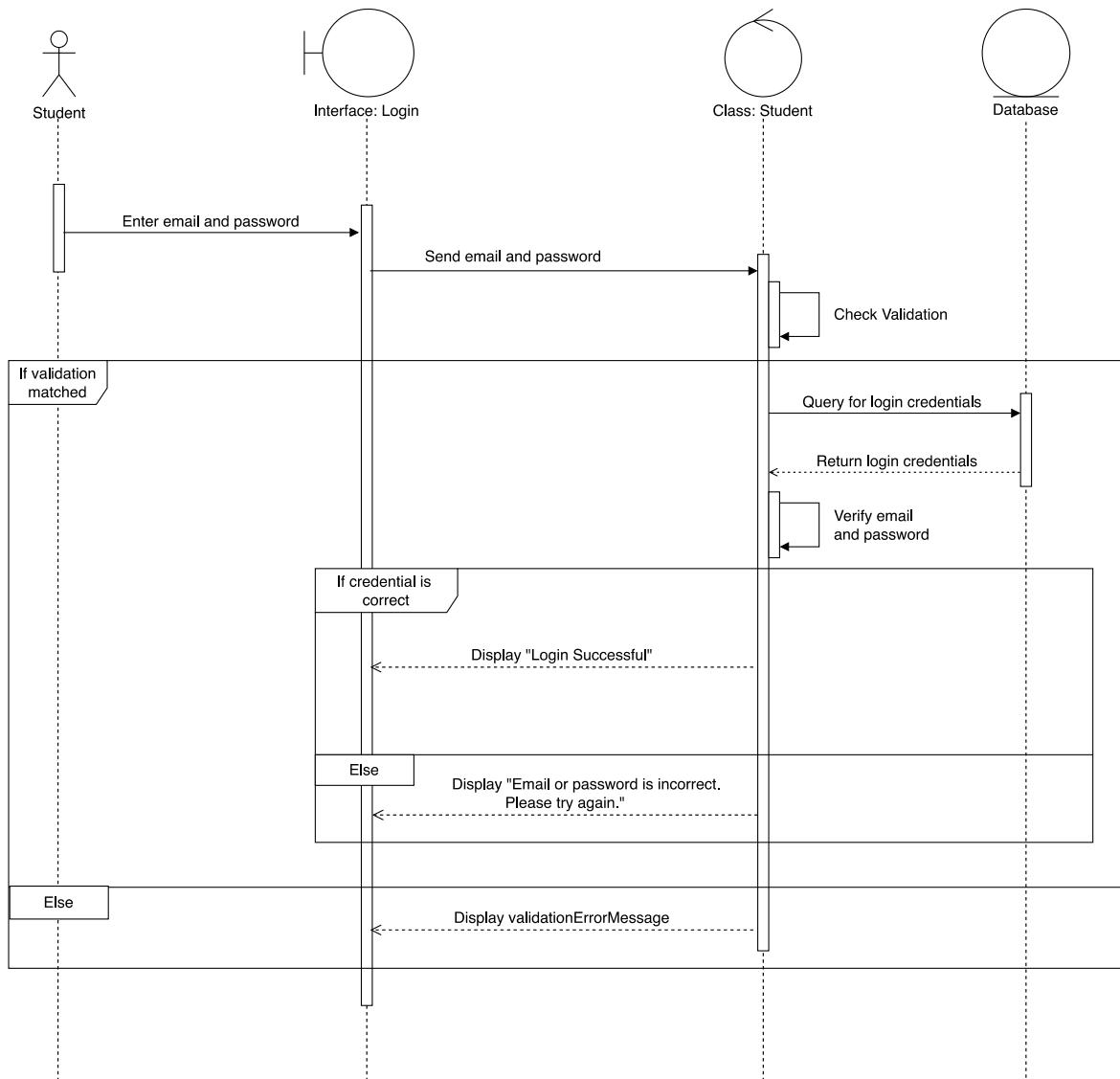


### 3.2.3 Class Diagram of Proposed System

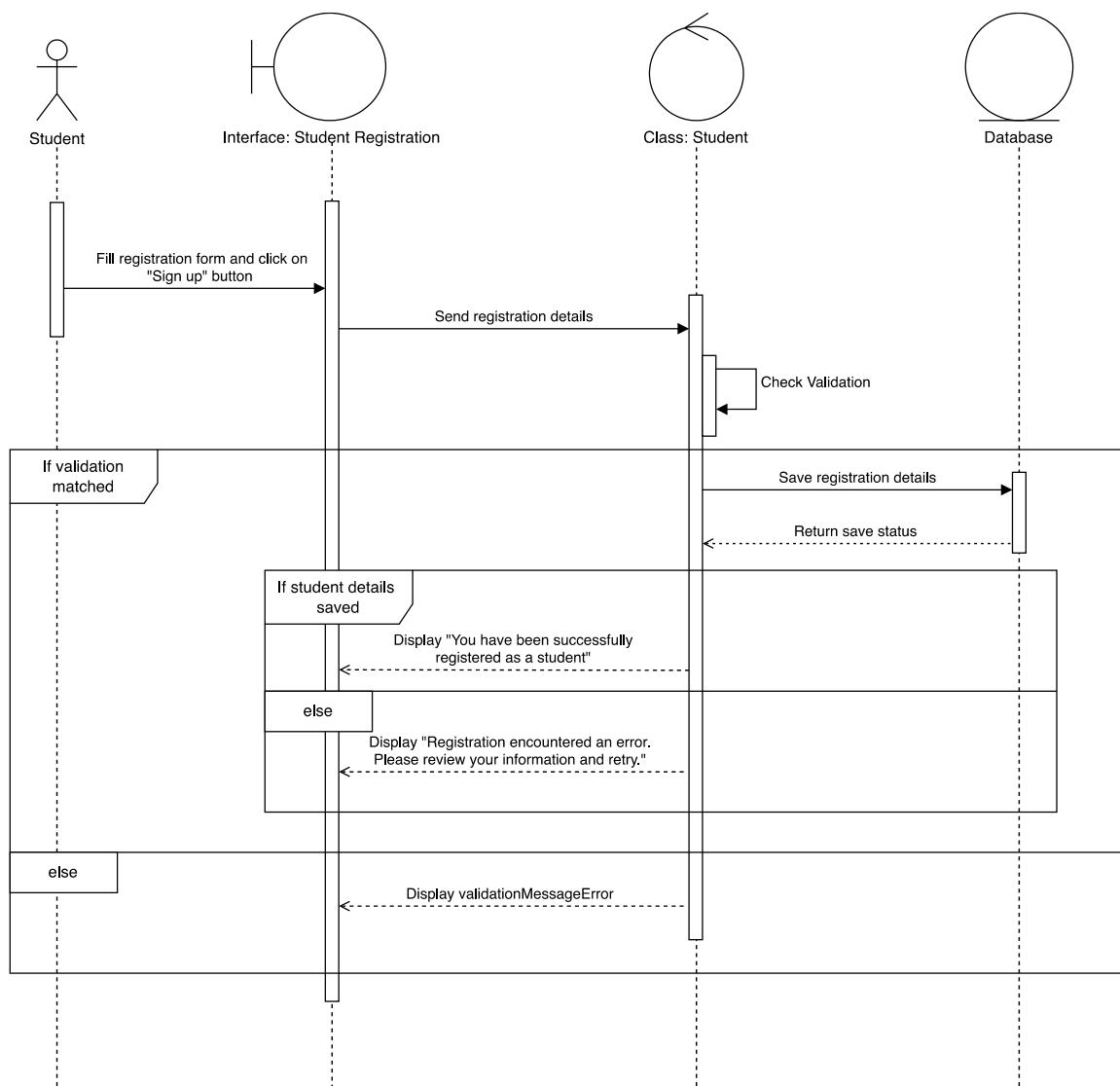


### 3.2.4 Sequence Diagrams (Each use case) for Proposed System

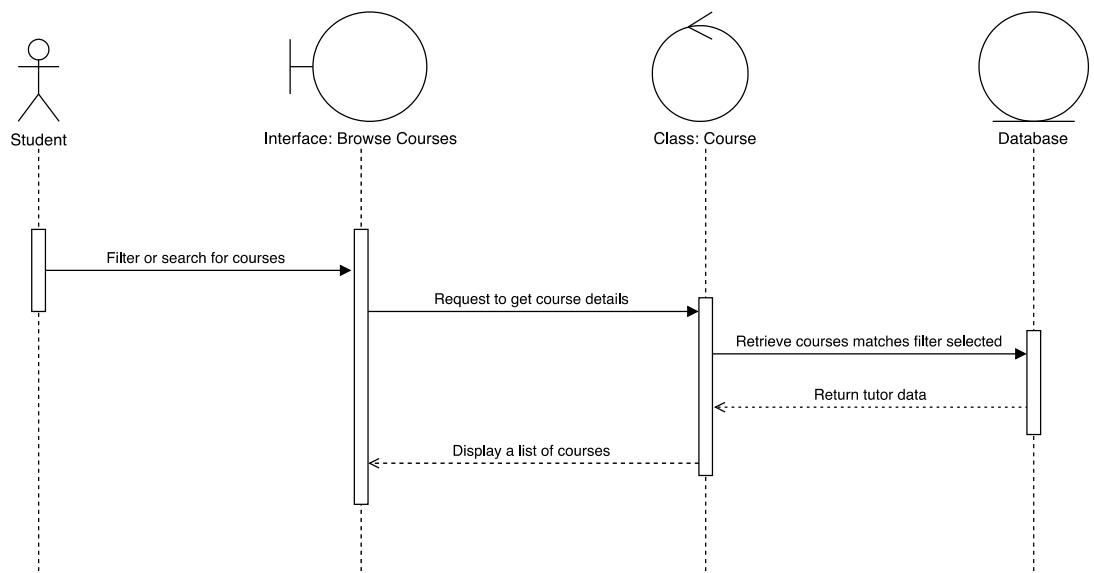
#### 1. Student Login



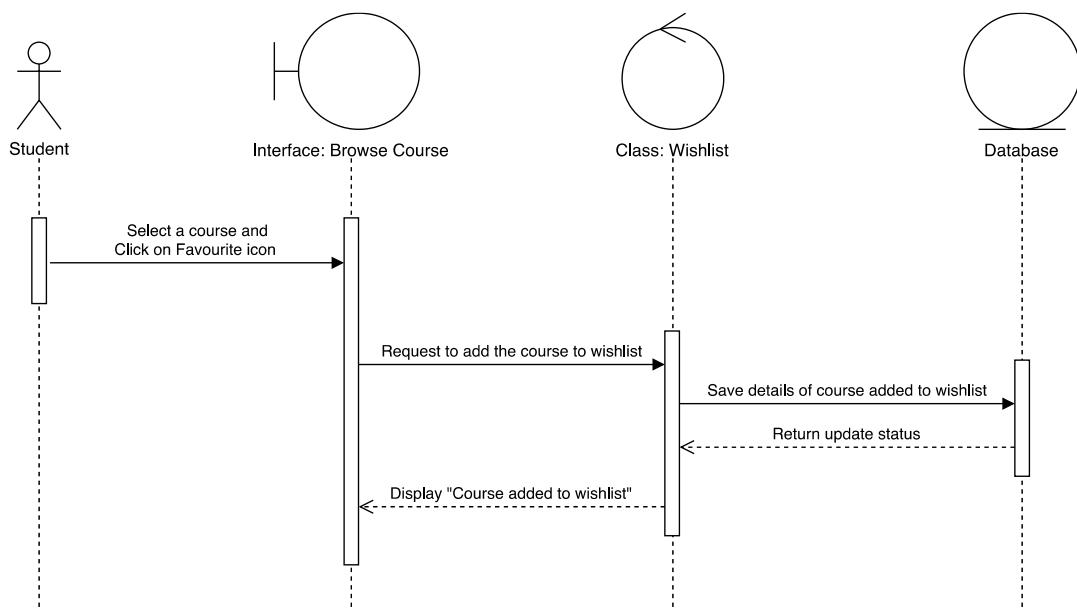
## 2. Student Registration



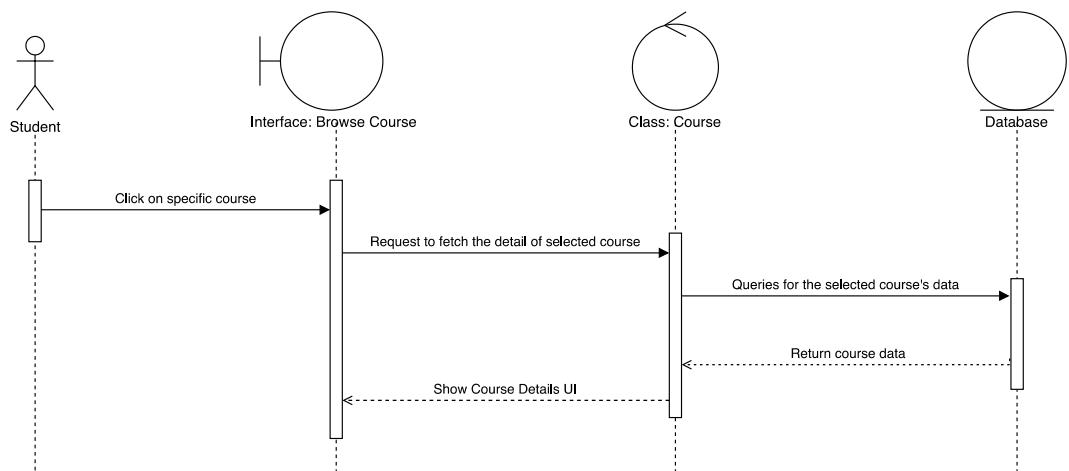
### 3. Browse Course



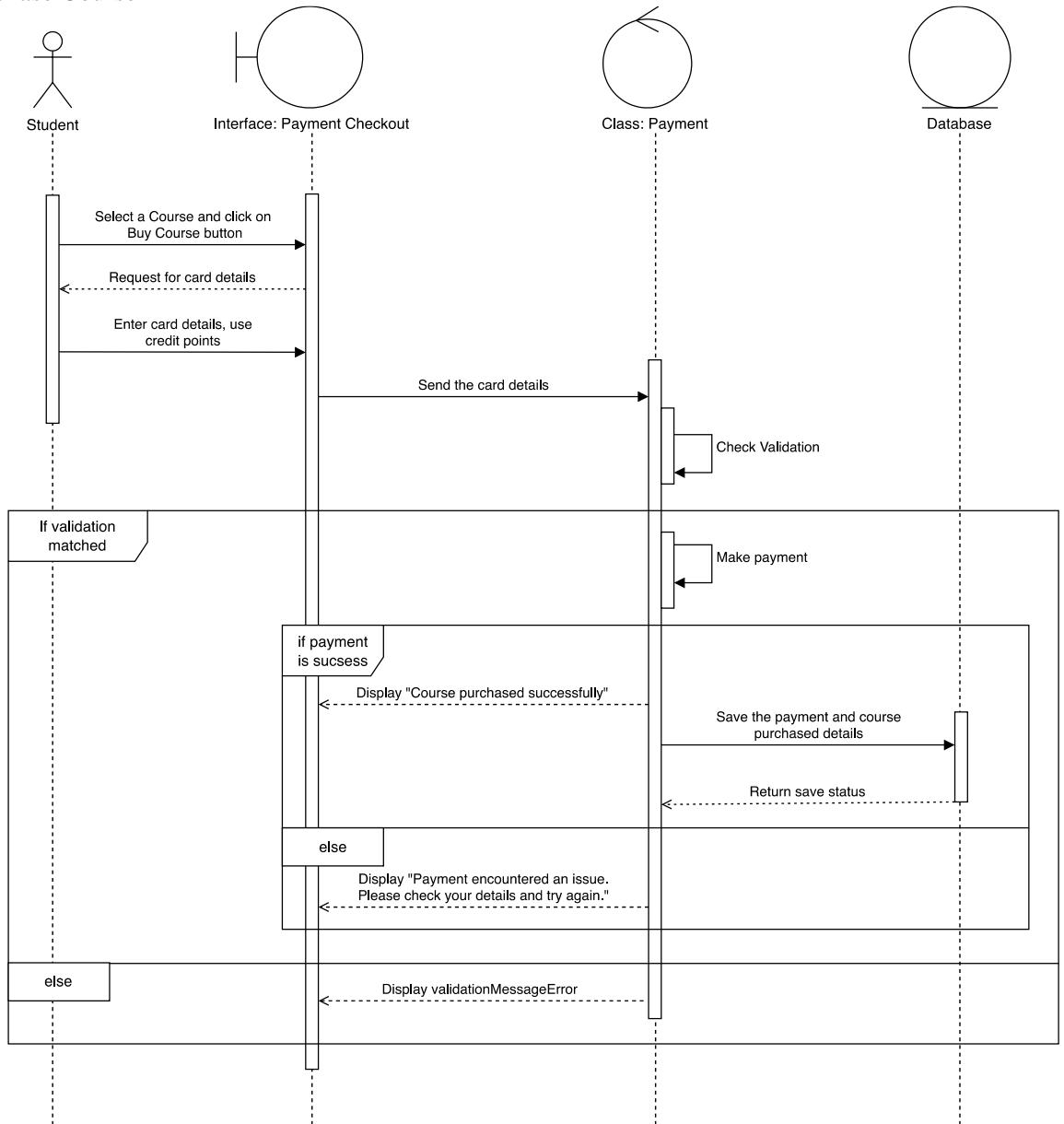
### 4. Add to Wishlist



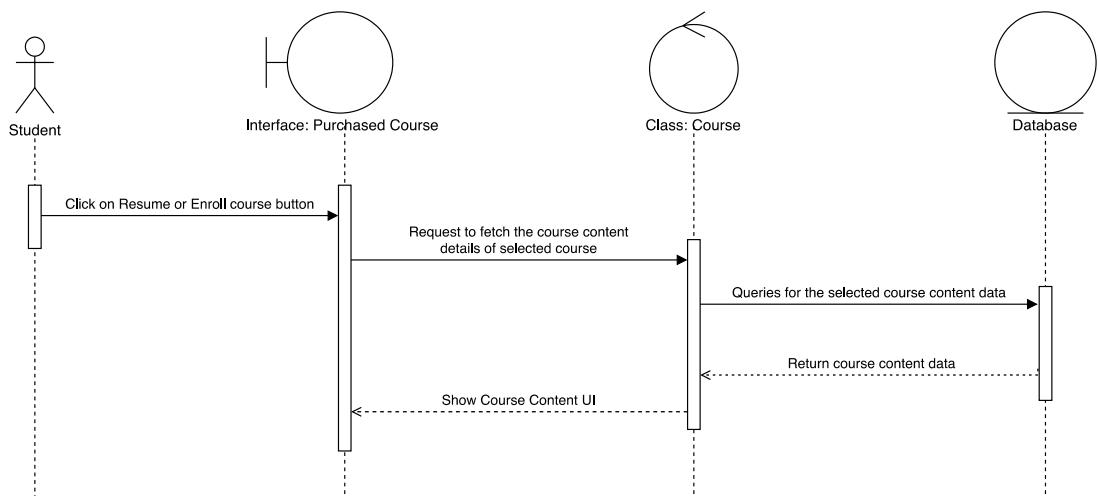
## 5. View Course Details



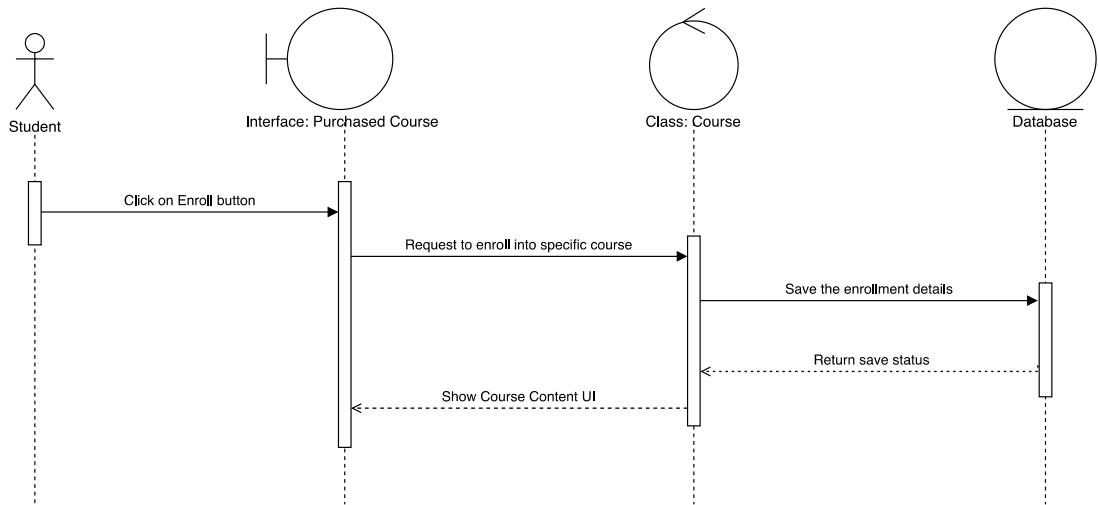
## 6. Purchase Course



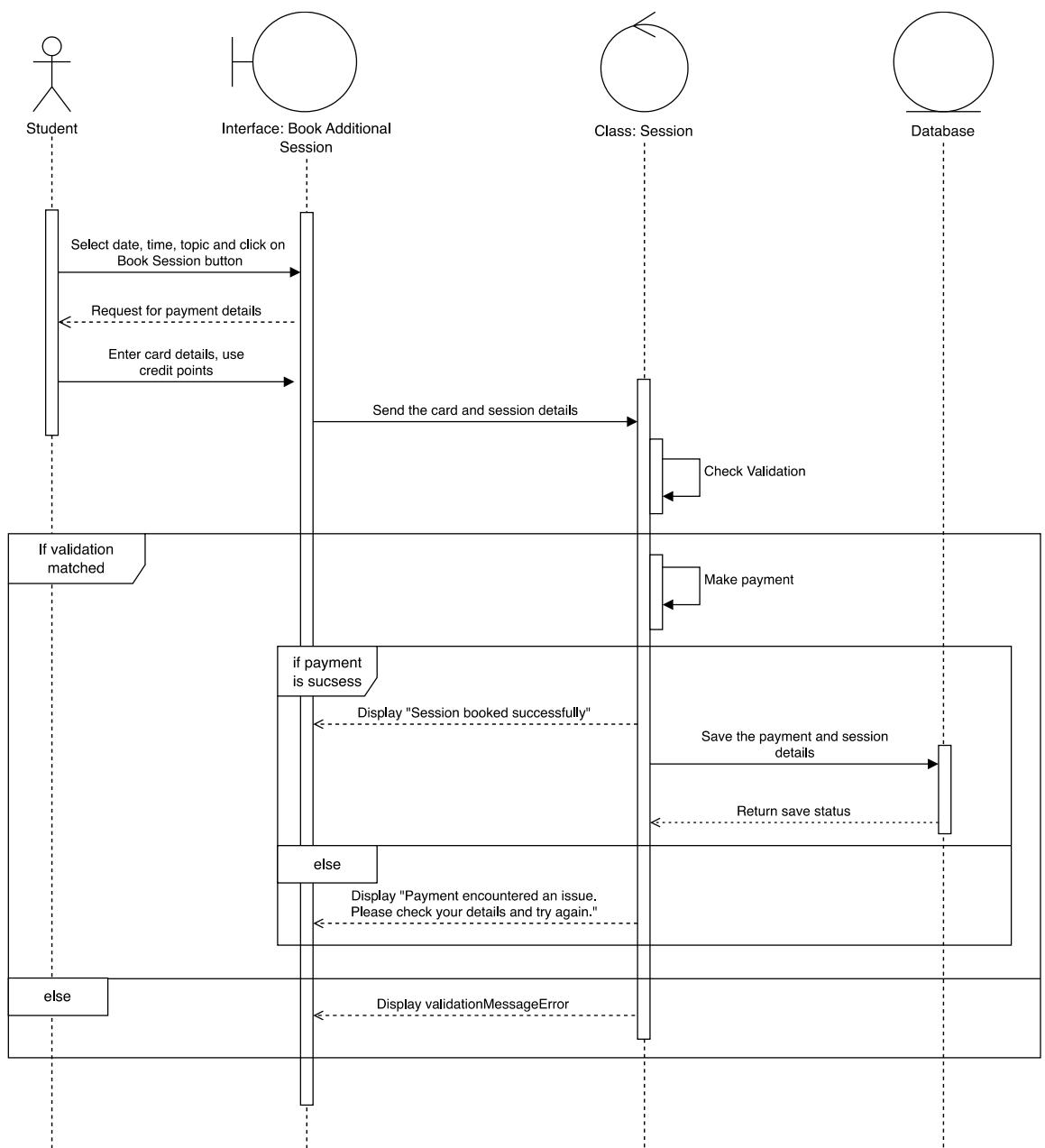
## 7. Enroll in Course



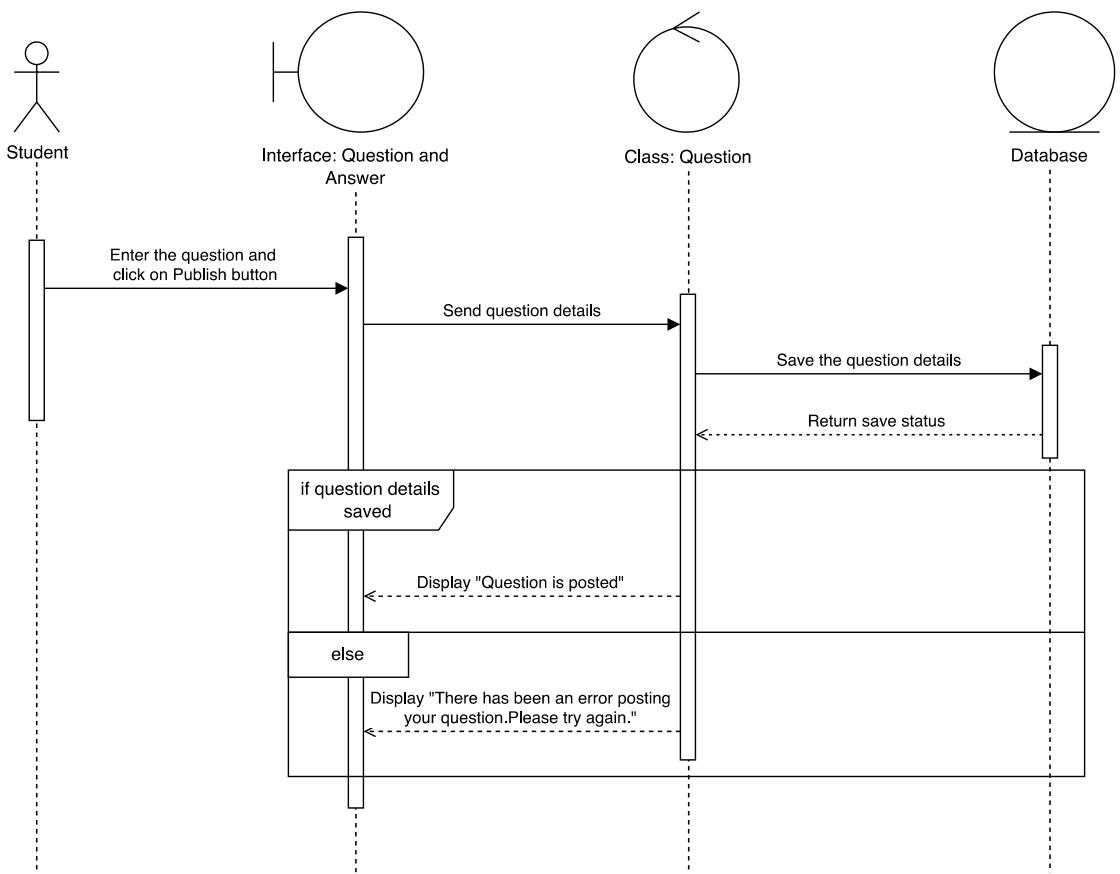
## 8. Access Course Materials



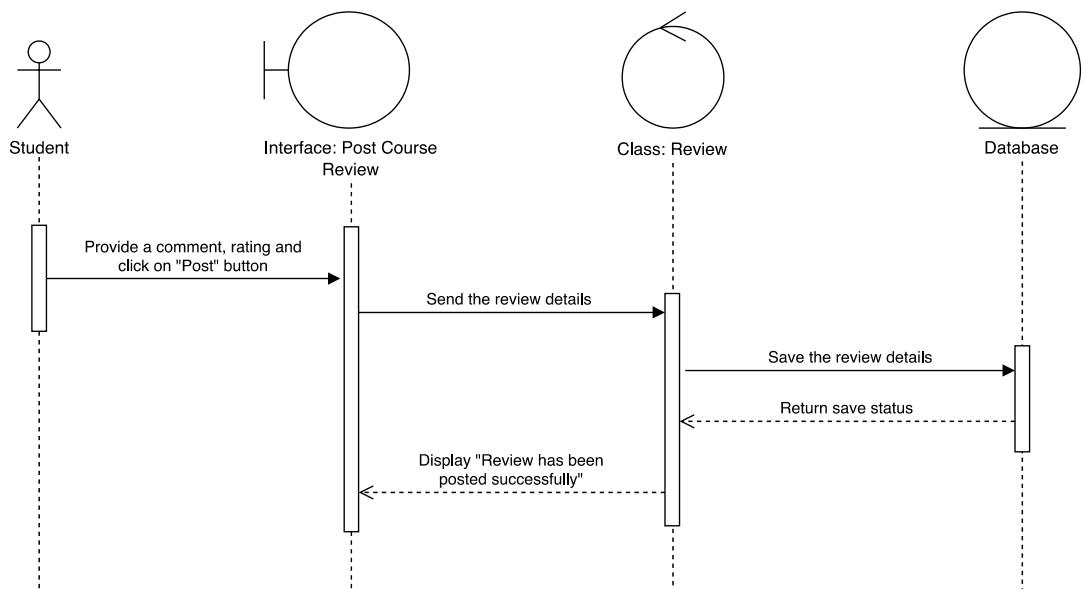
## 9. Book Additional Session



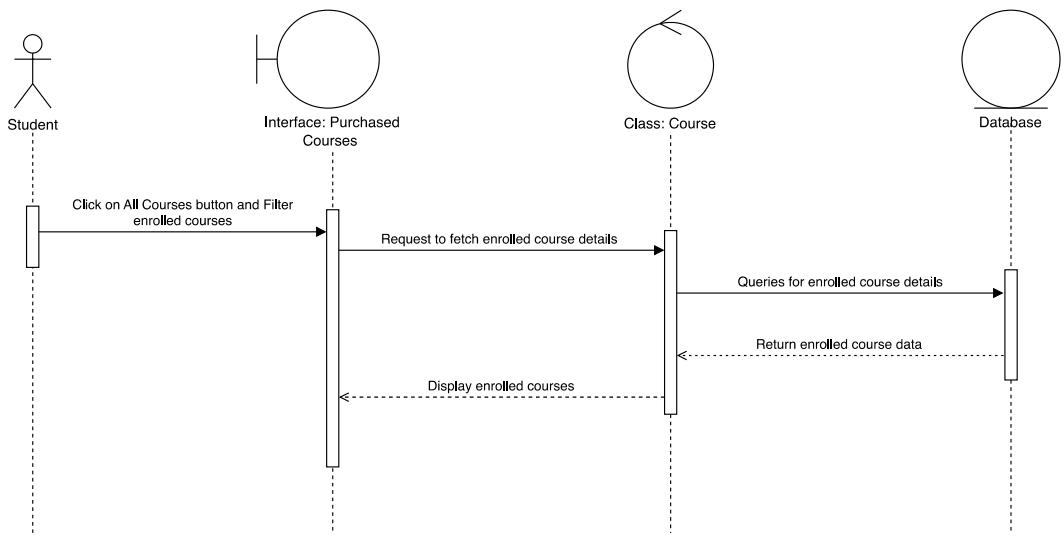
## 10. Ask Question



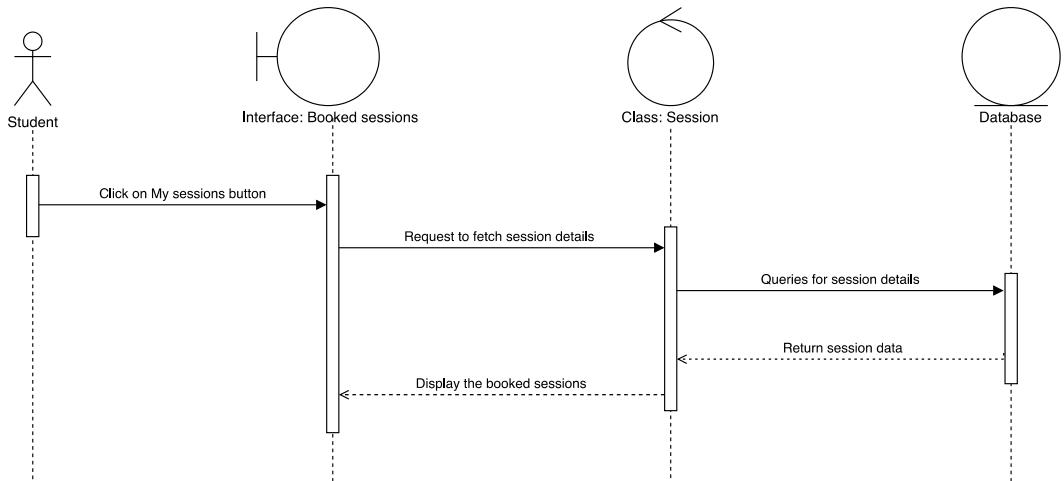
## 11. Review and Rate Course



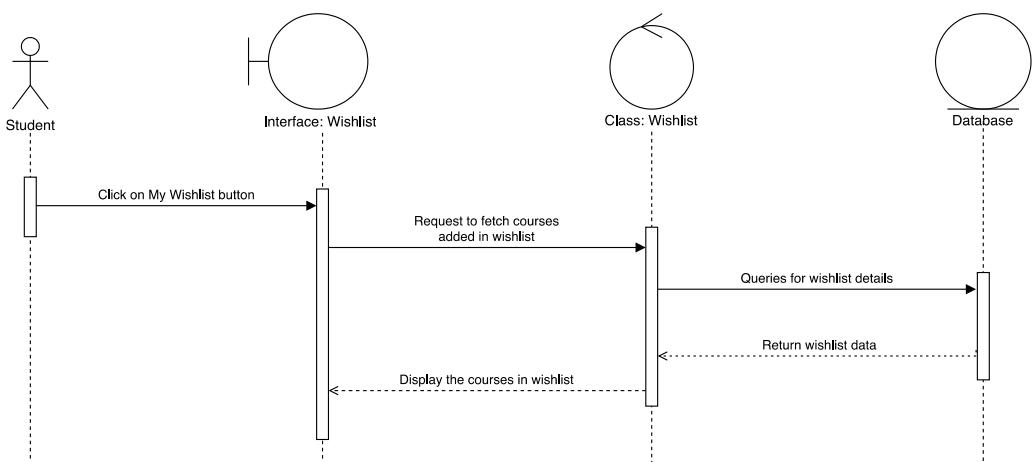
## 12. View Enrolled Courses



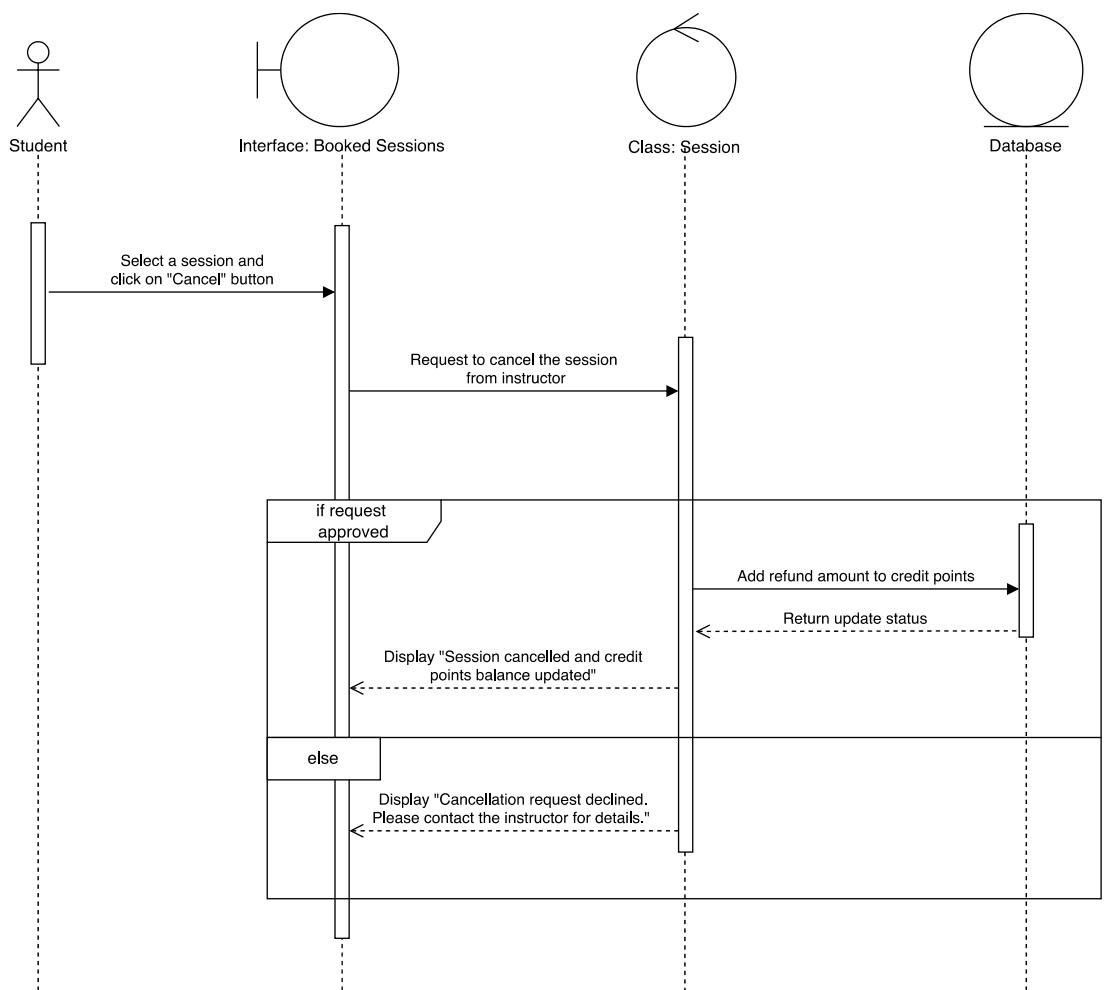
## 13. View Booked Sessions



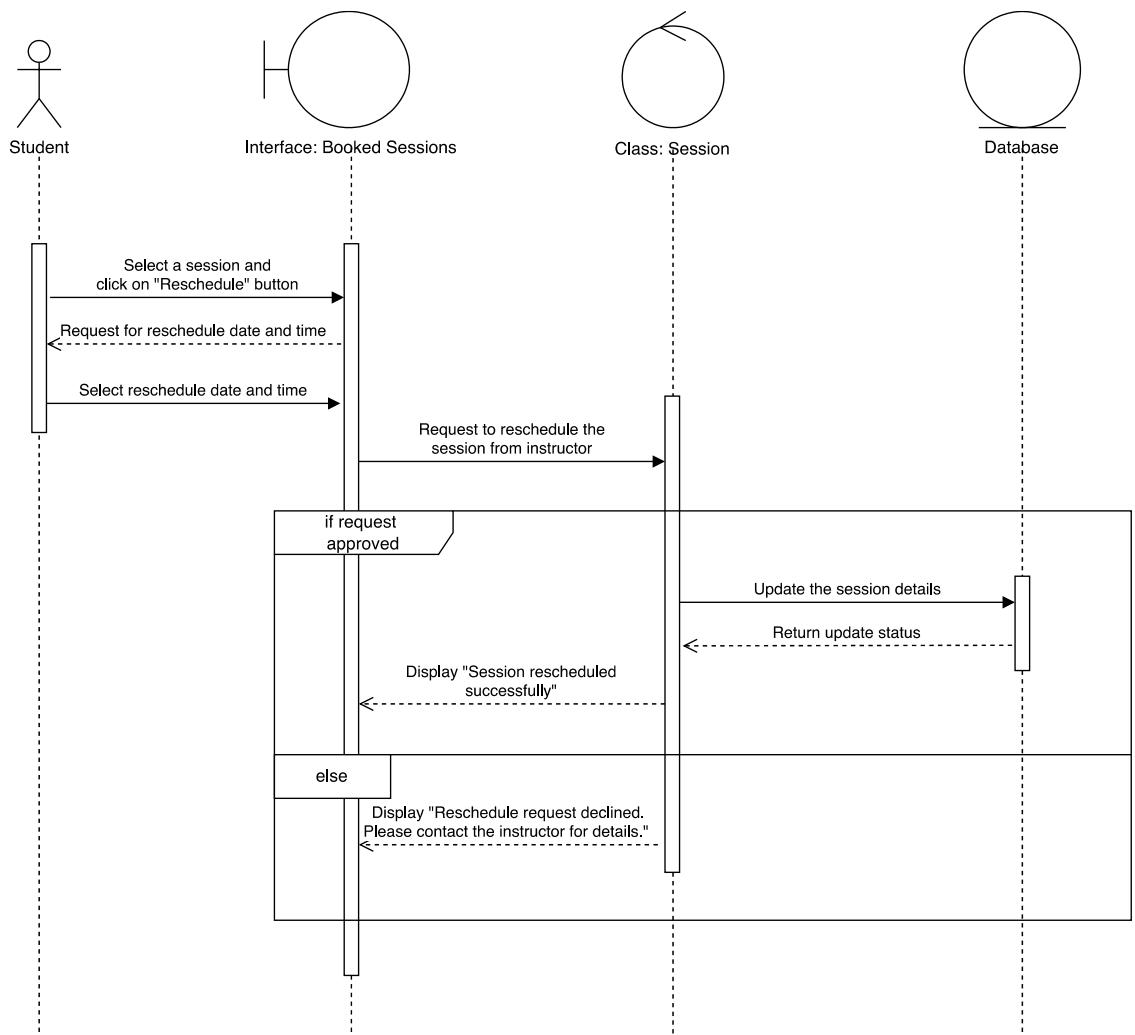
## 14. View Wishlist



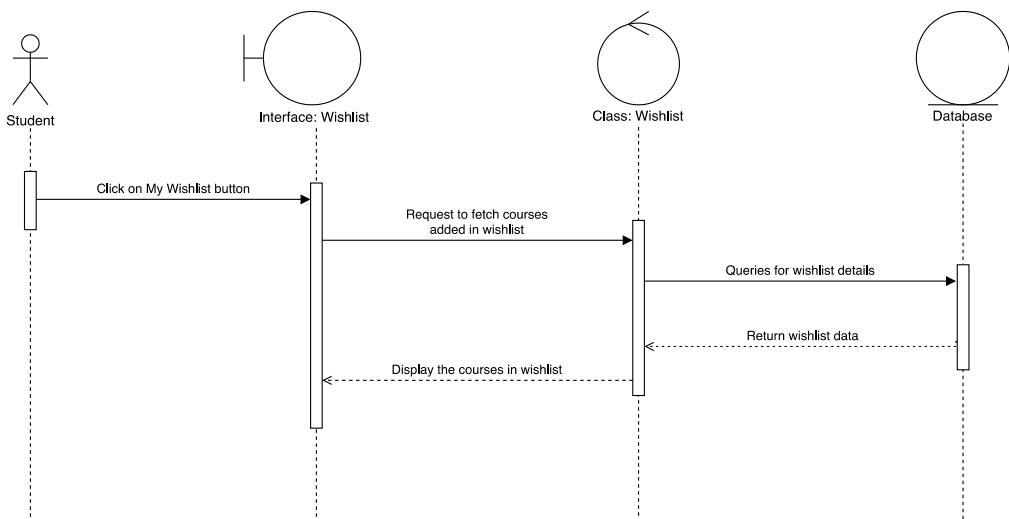
## 15. Cancel Session



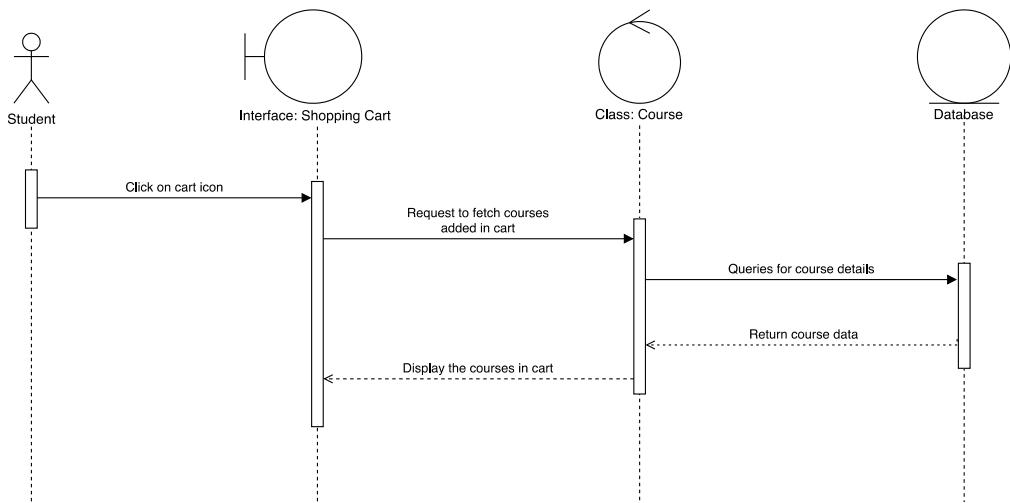
## 16. Reschedule Session



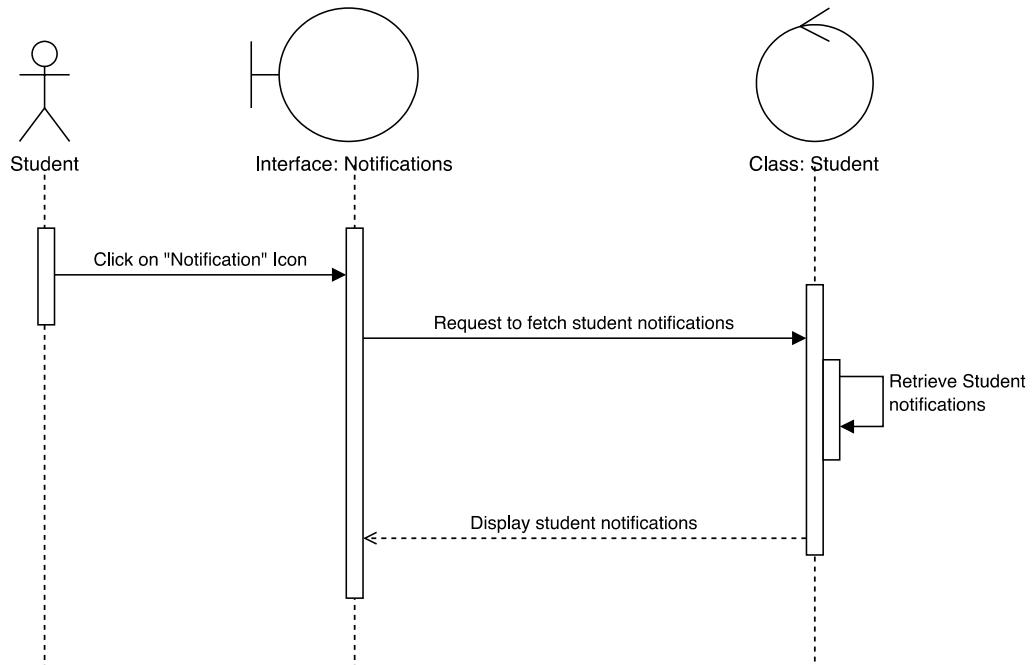
## 17. View Shopping Cart



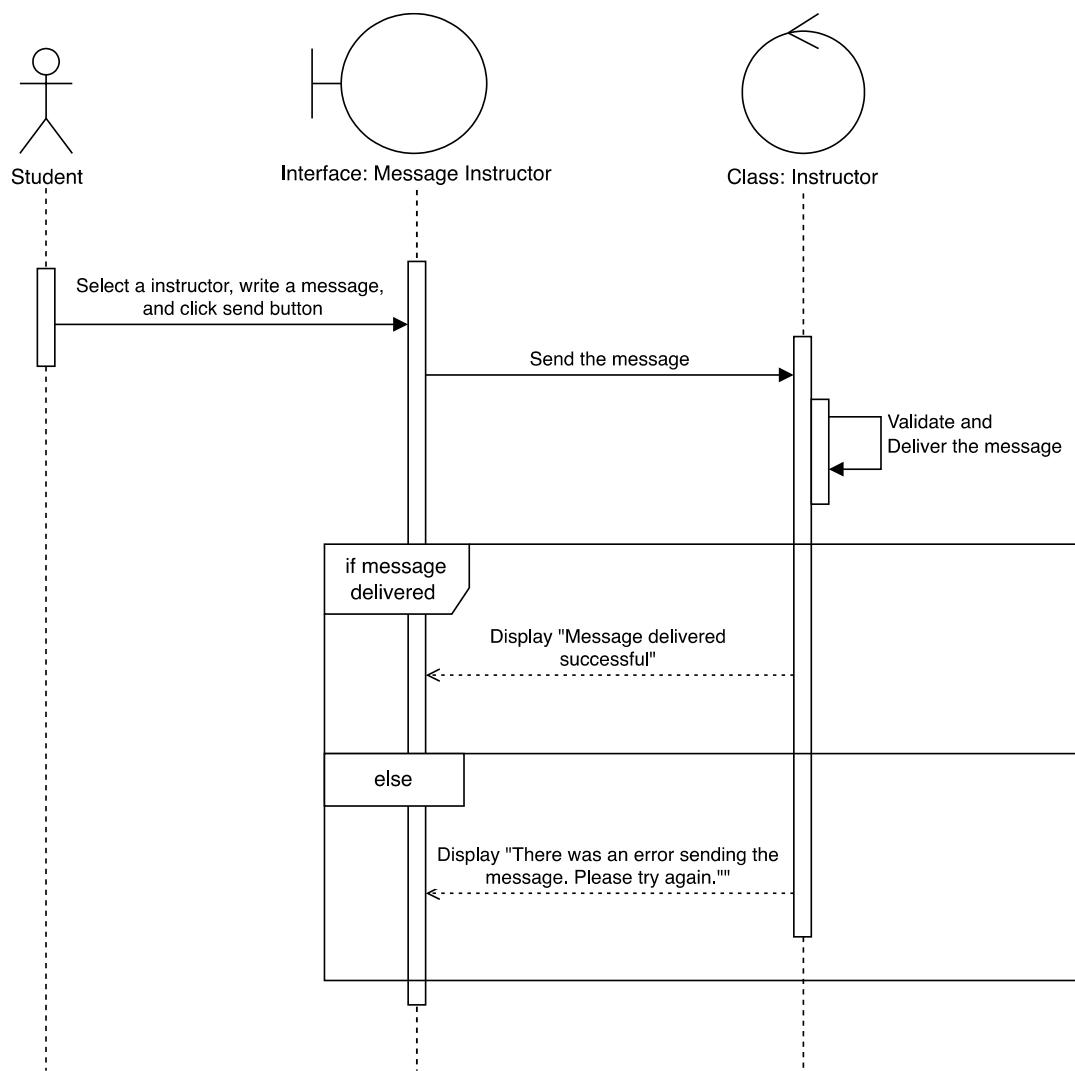
### 18. View Student Notifications



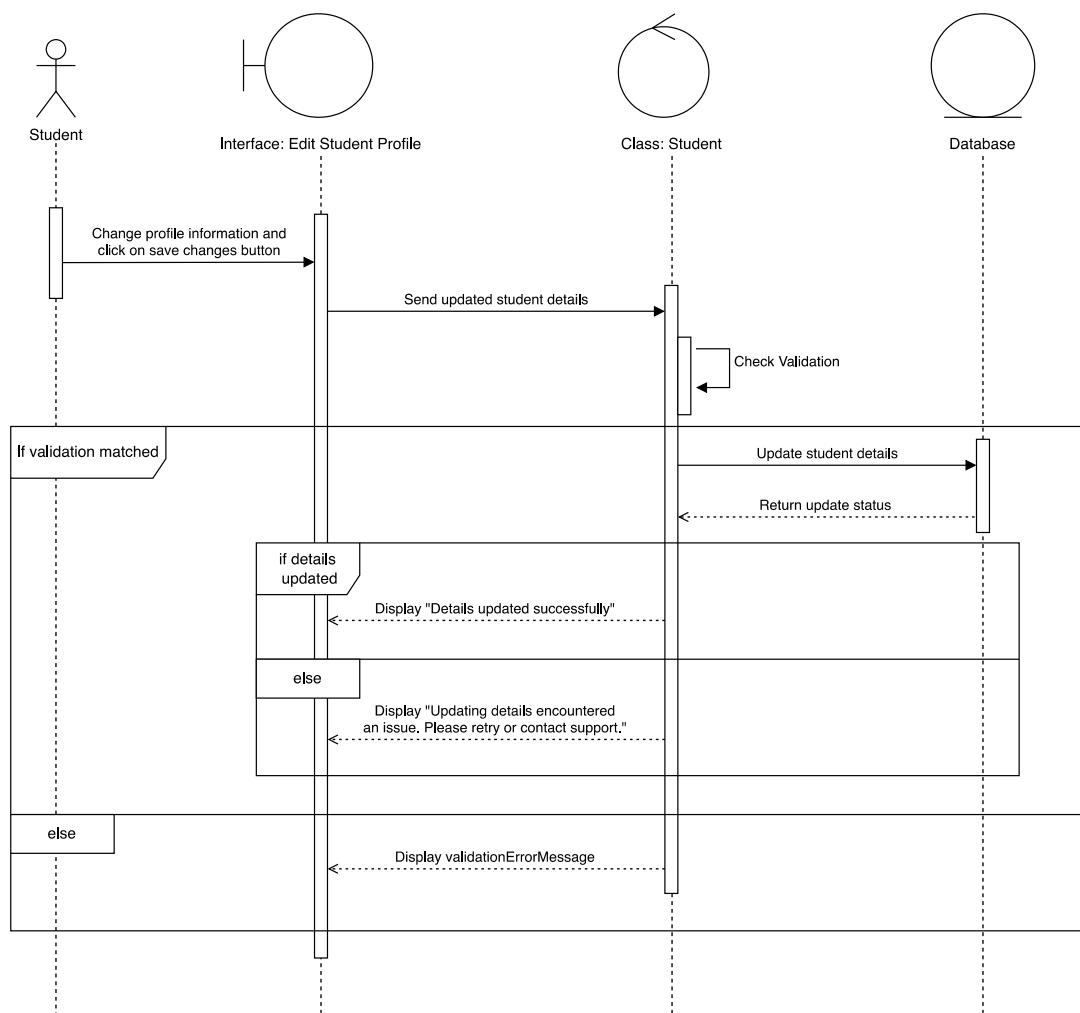
### 19. View Payment History



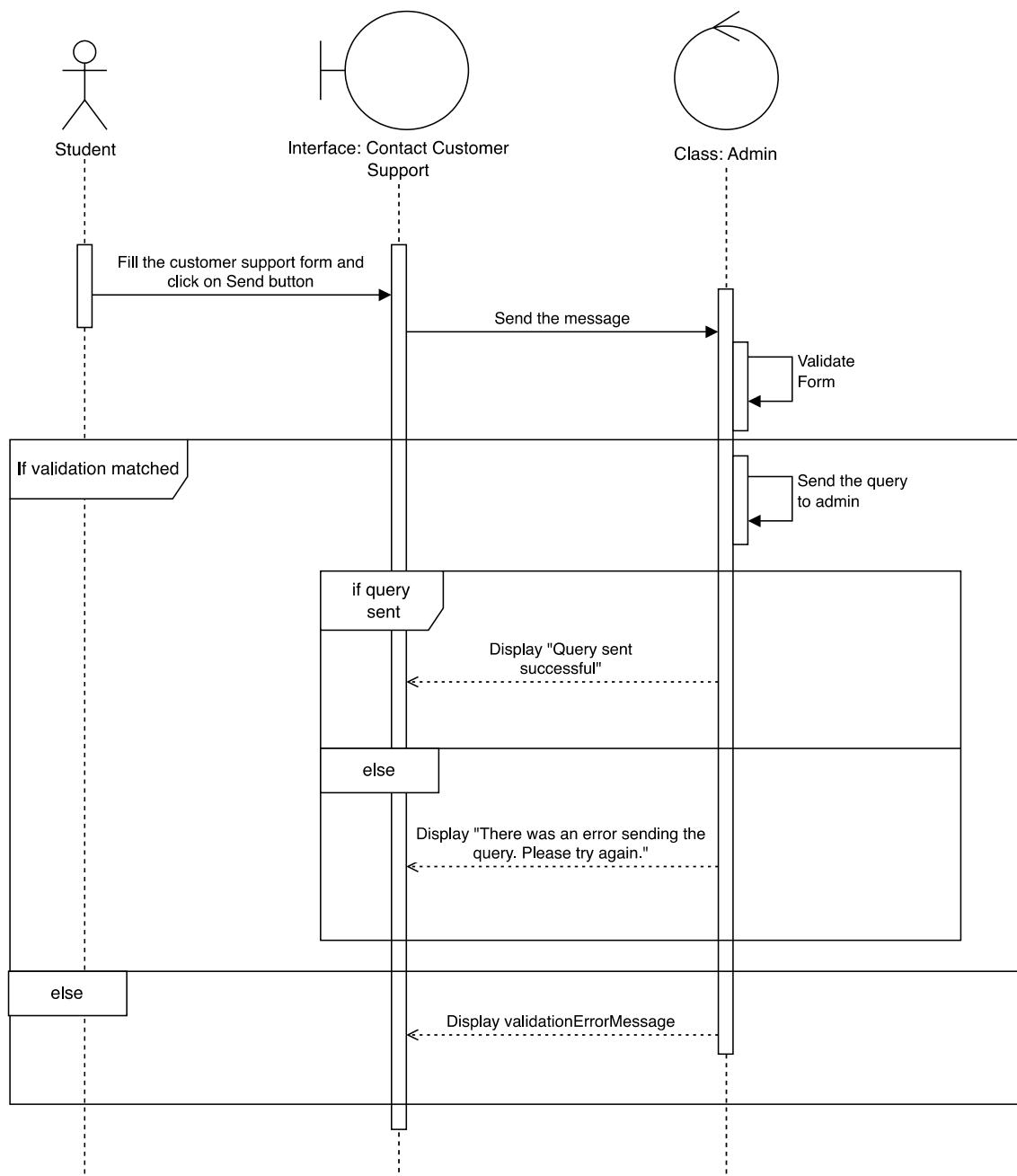
## 20. View Messages



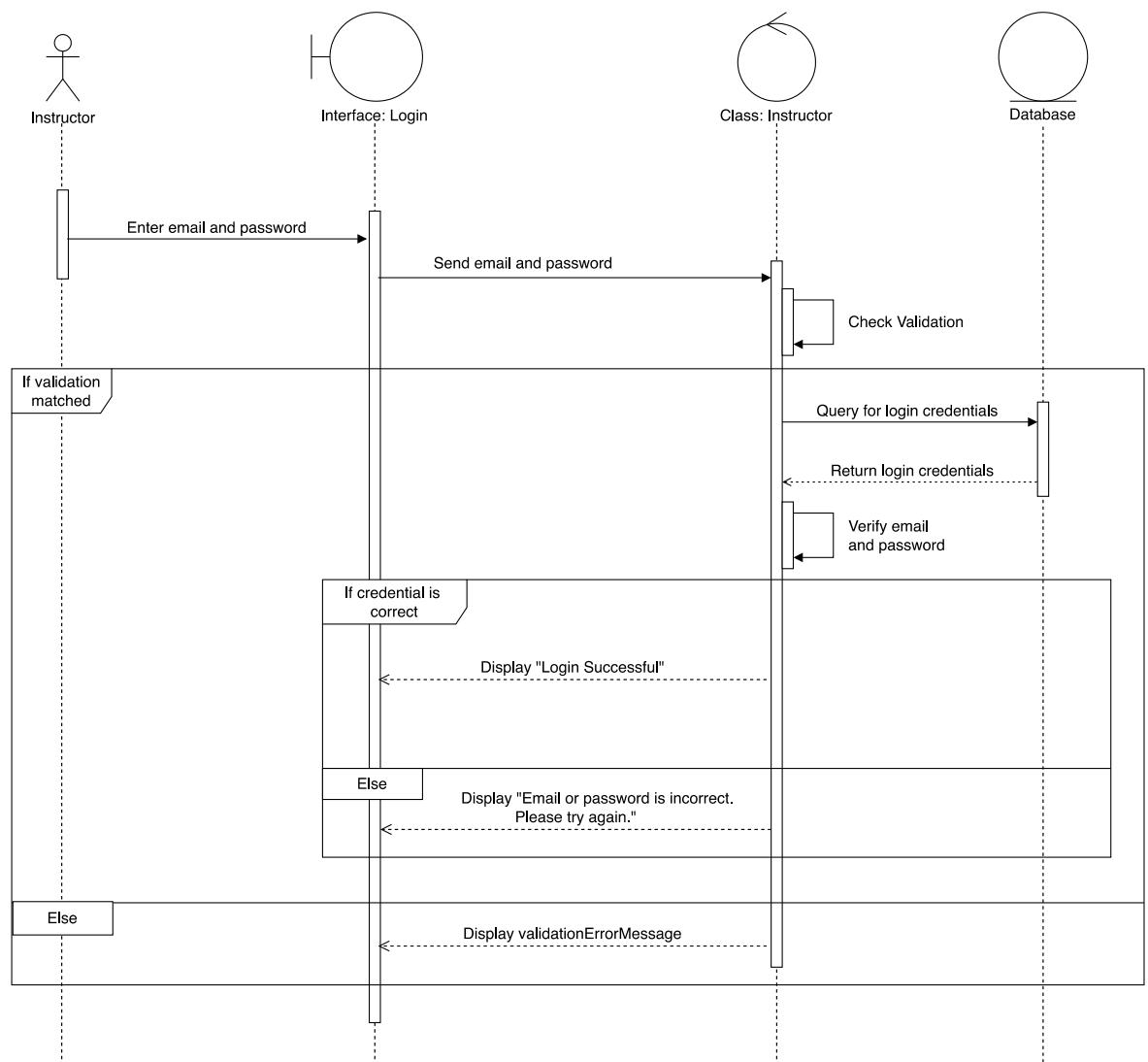
## 21. Edit Student Profile



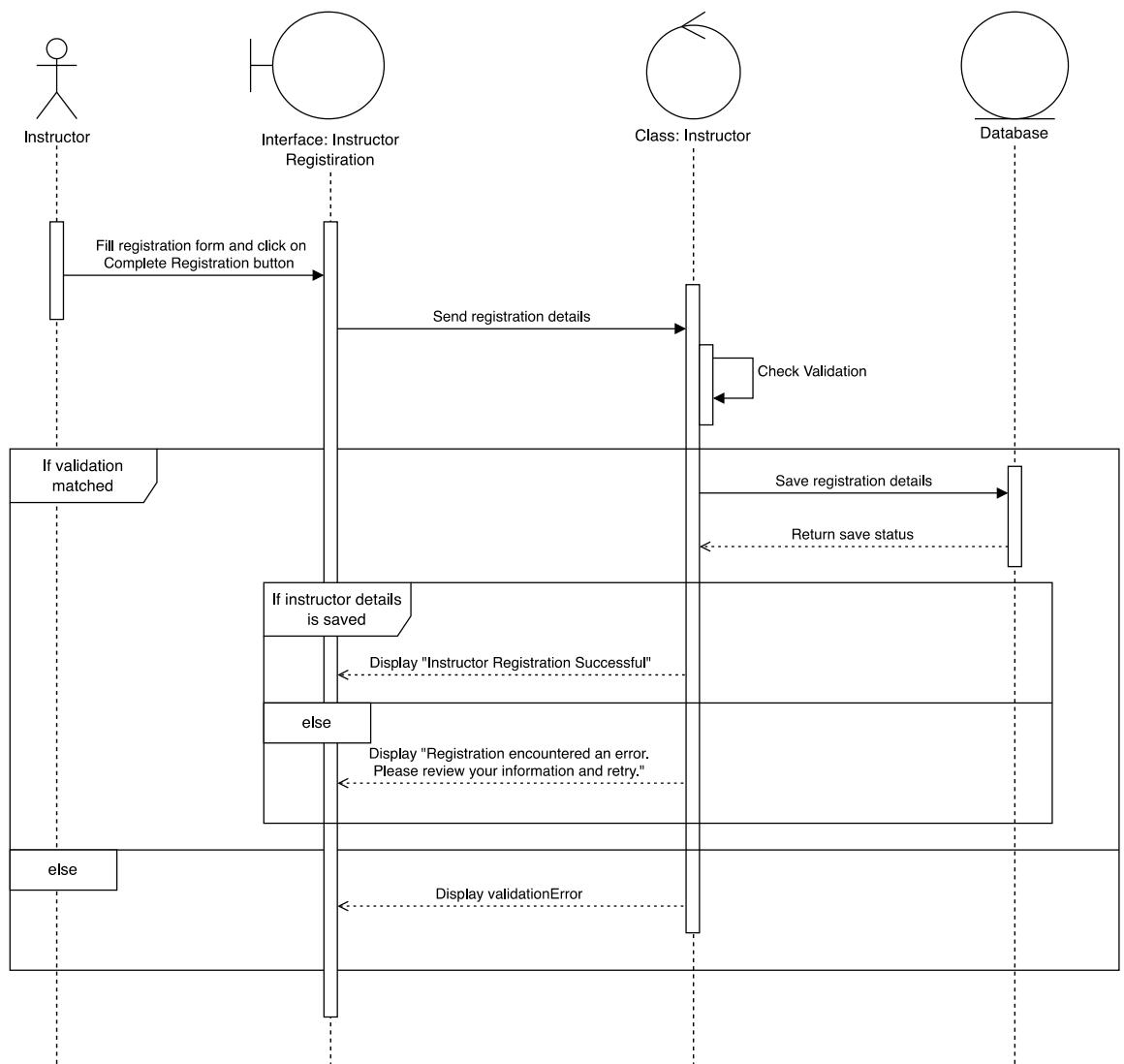
## 22. Student Contact Customer Support



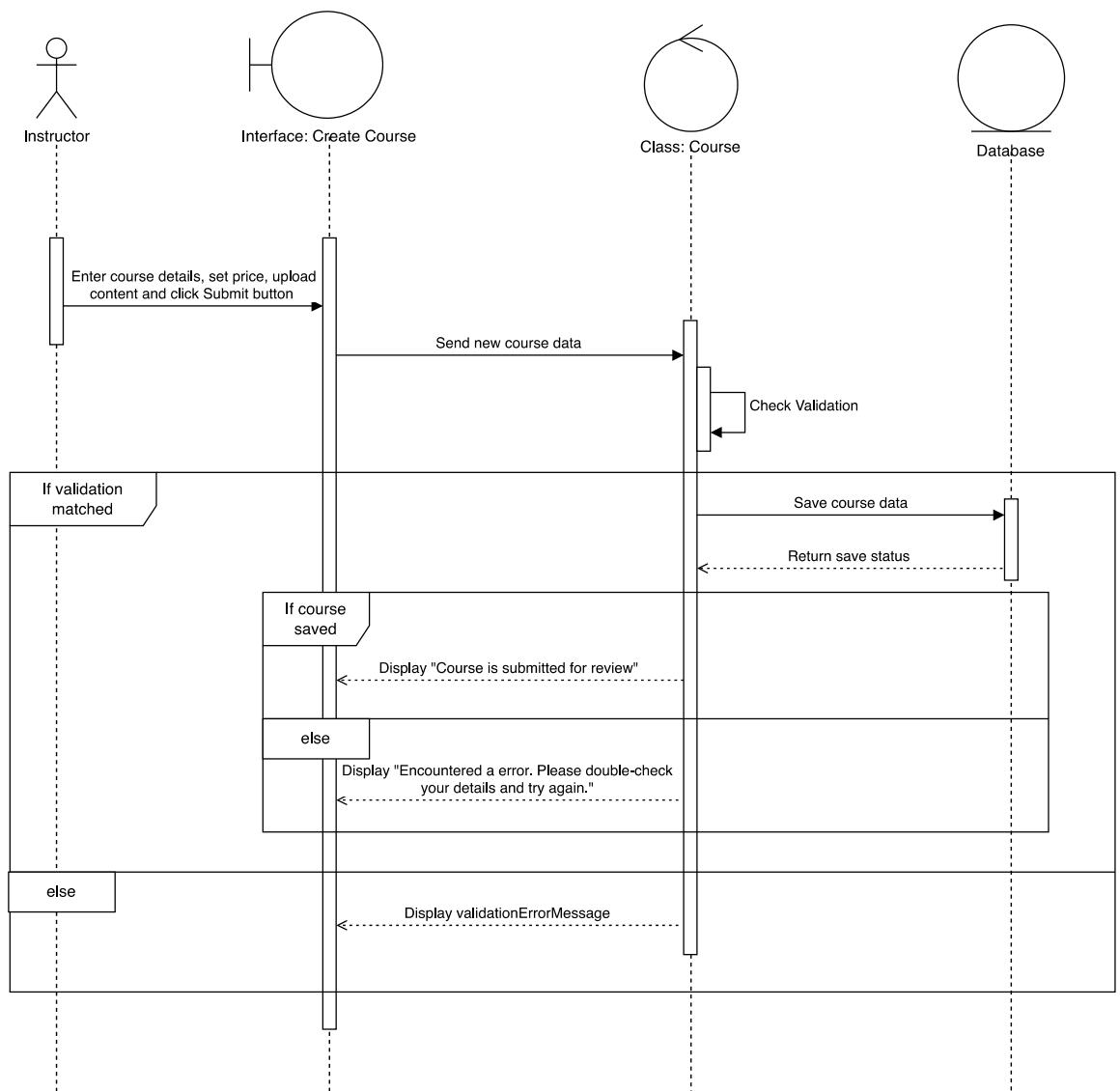
### 23. Instructor Login



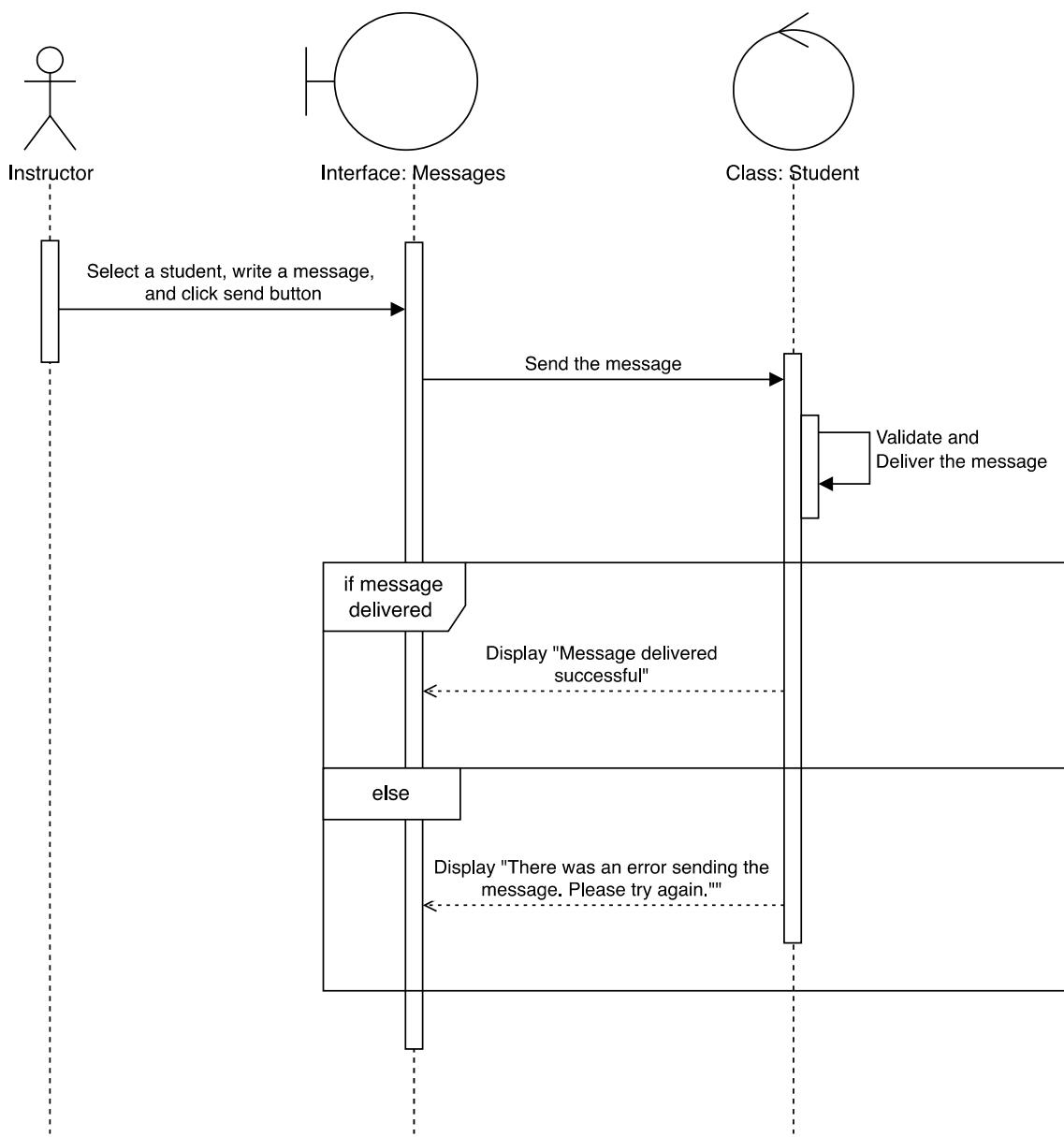
## 24. Instructor Registration



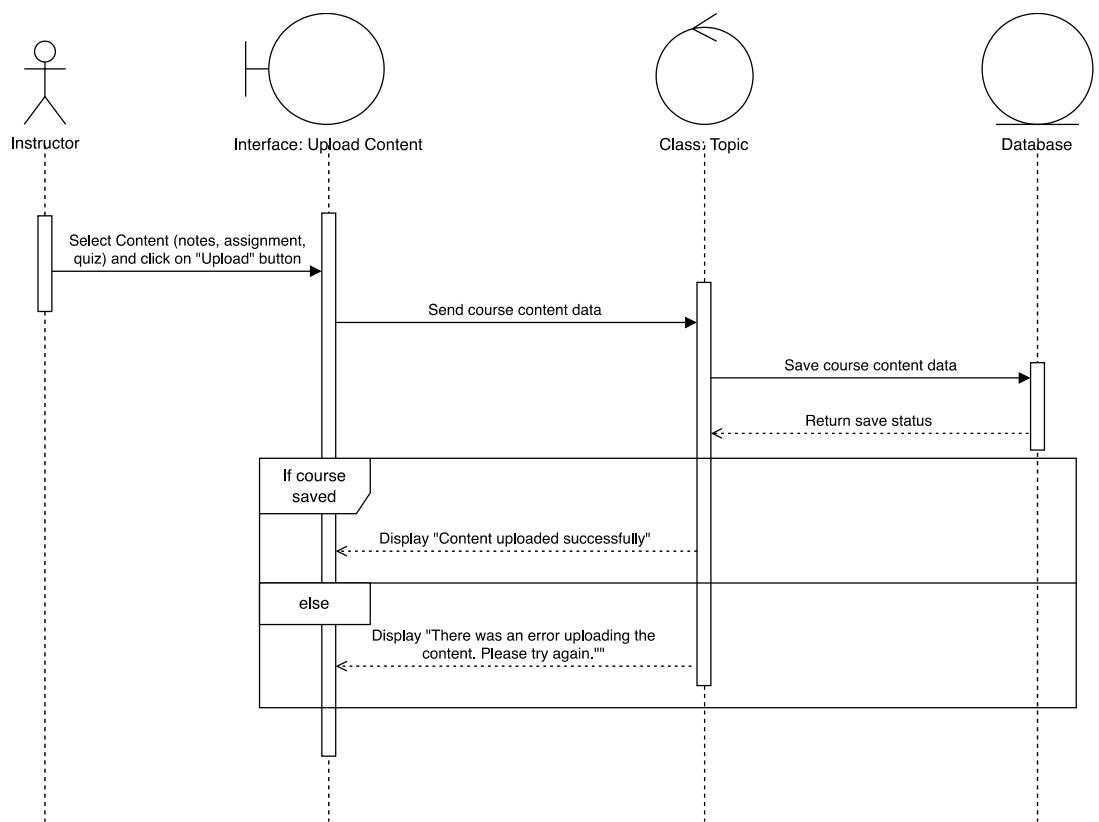
## 25. Create Course



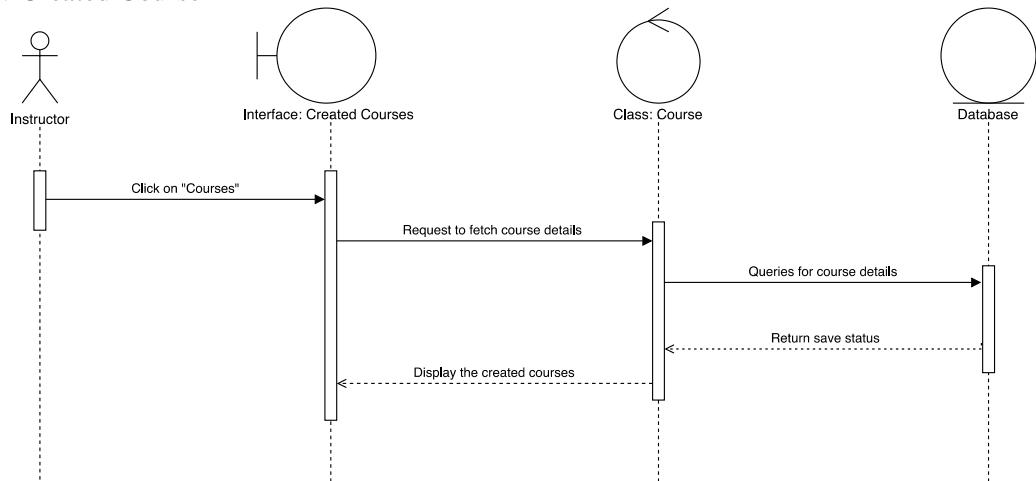
## 26. Message Student



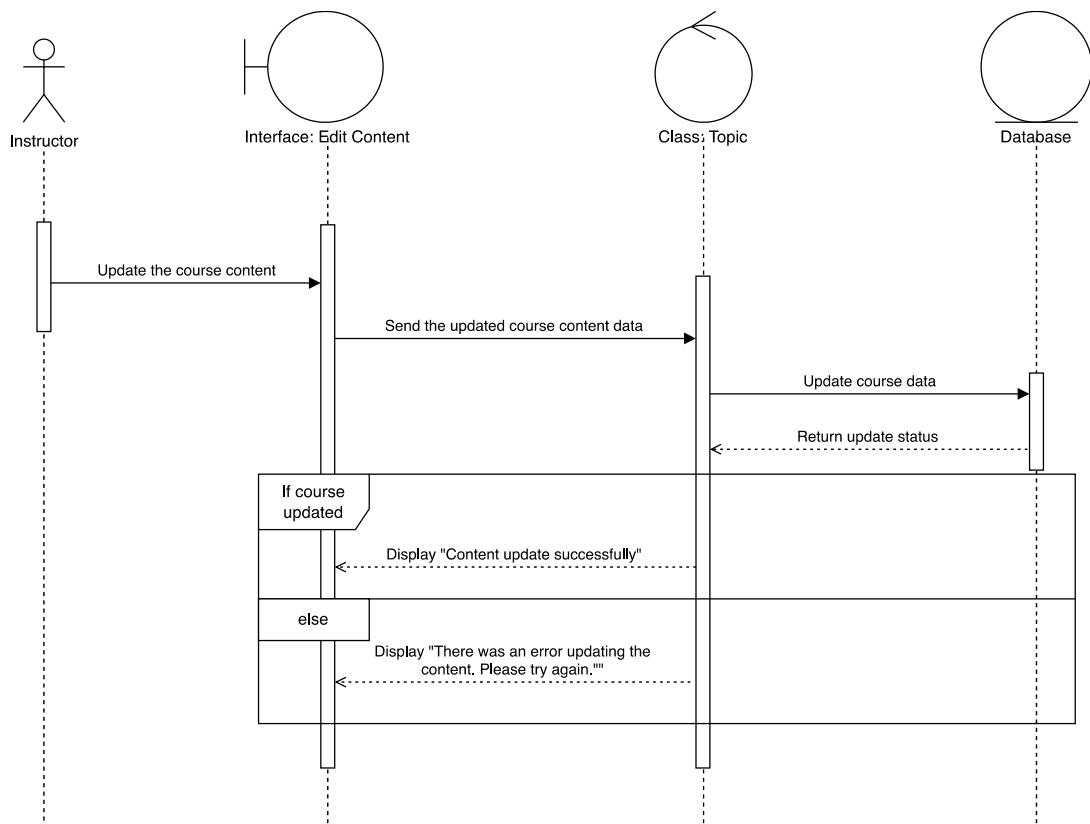
## 27. Upload Course Content



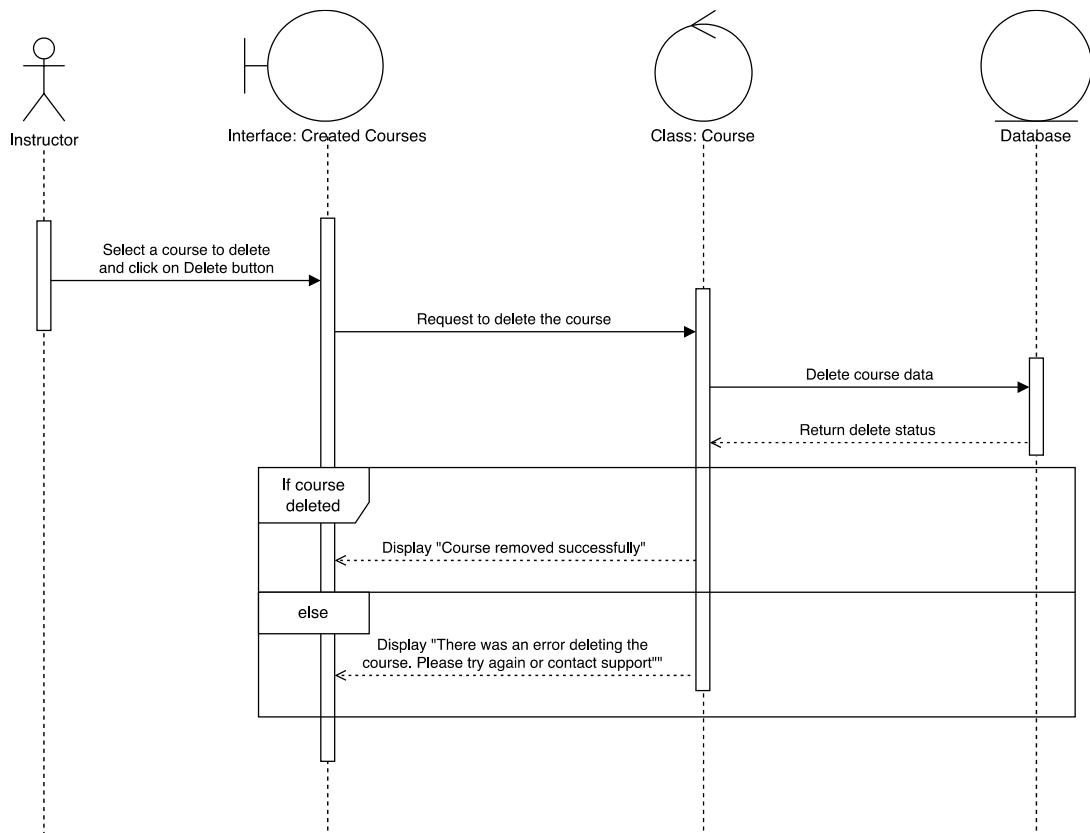
## 28. View Created Course



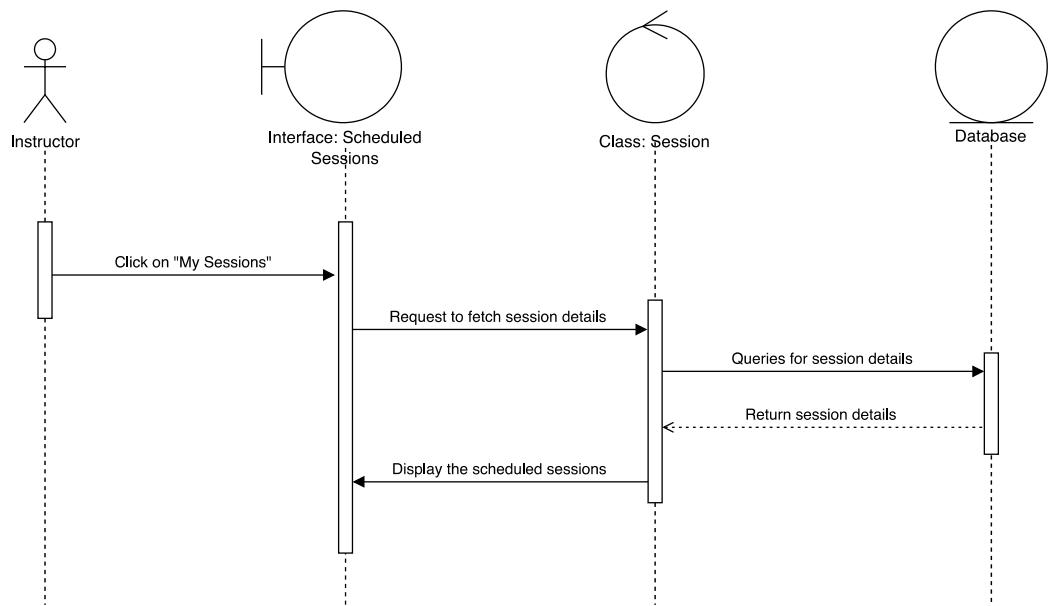
## 29. Edit Course Content



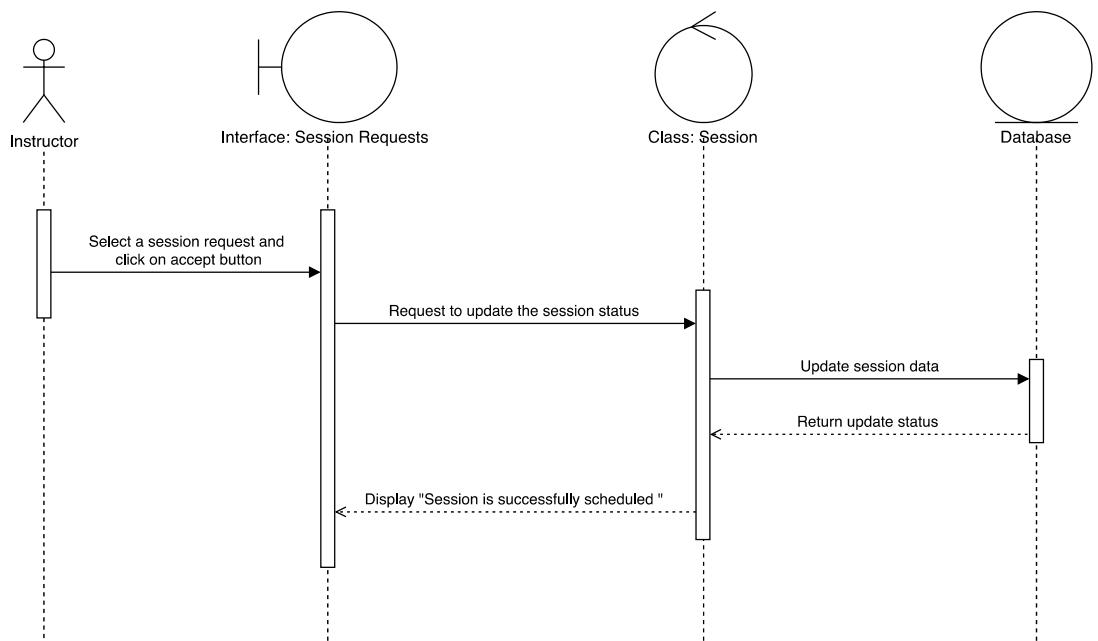
## 30. Delete Course



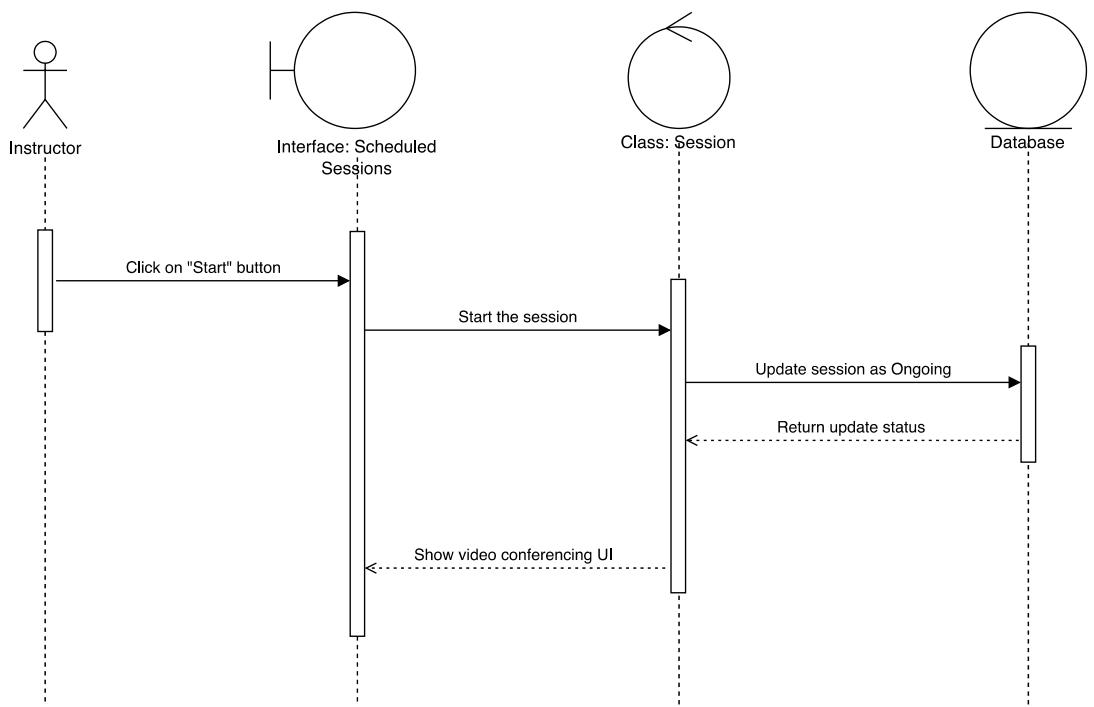
### 31. View Additional Sessions



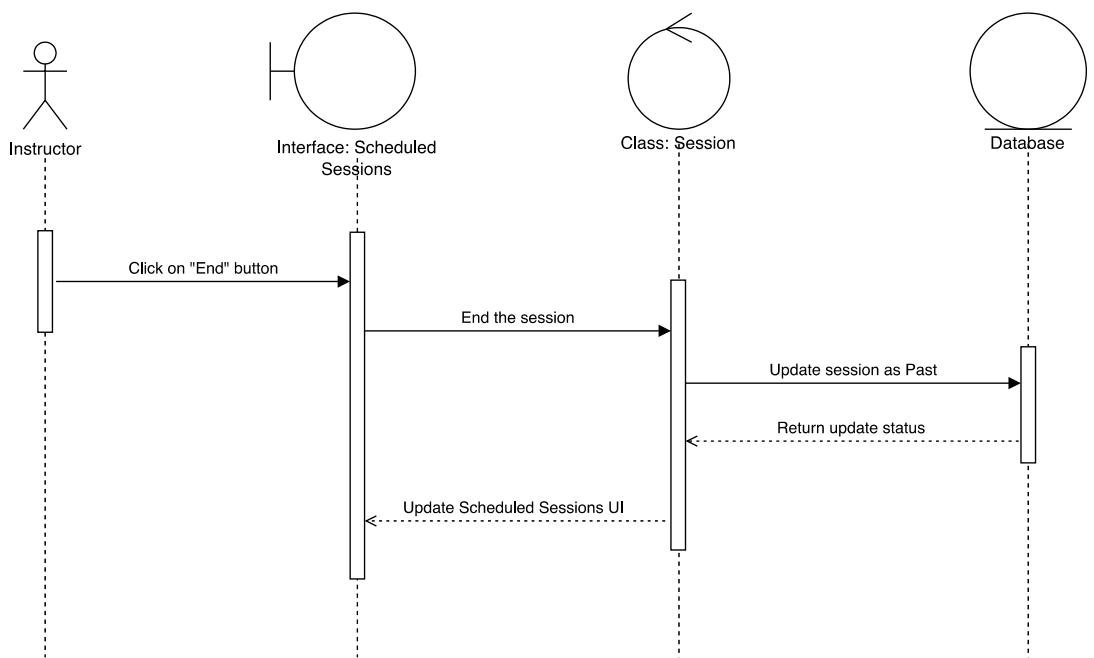
### 32. Accept Session Request



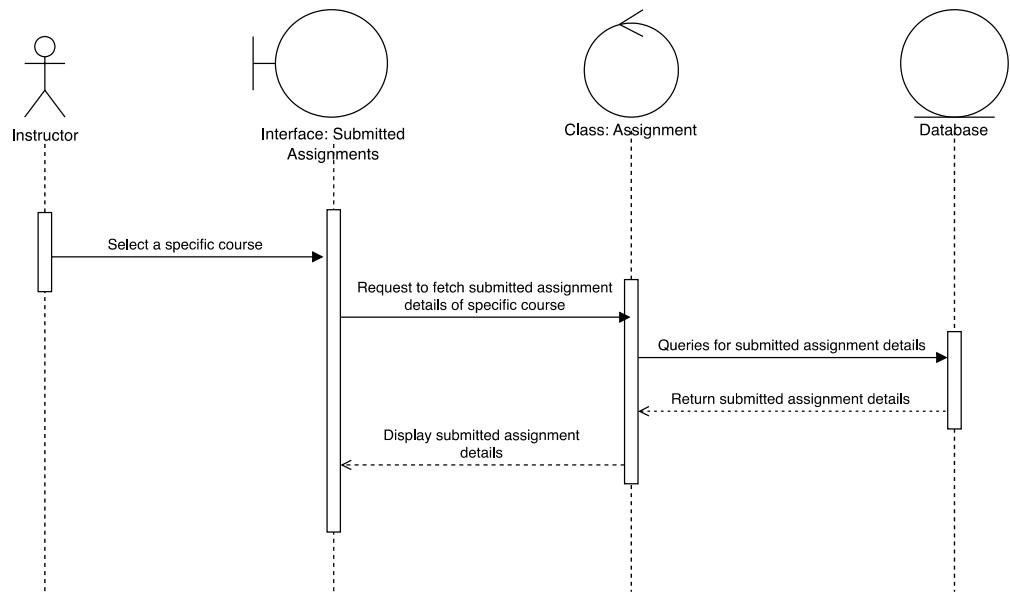
### 33. Start Session



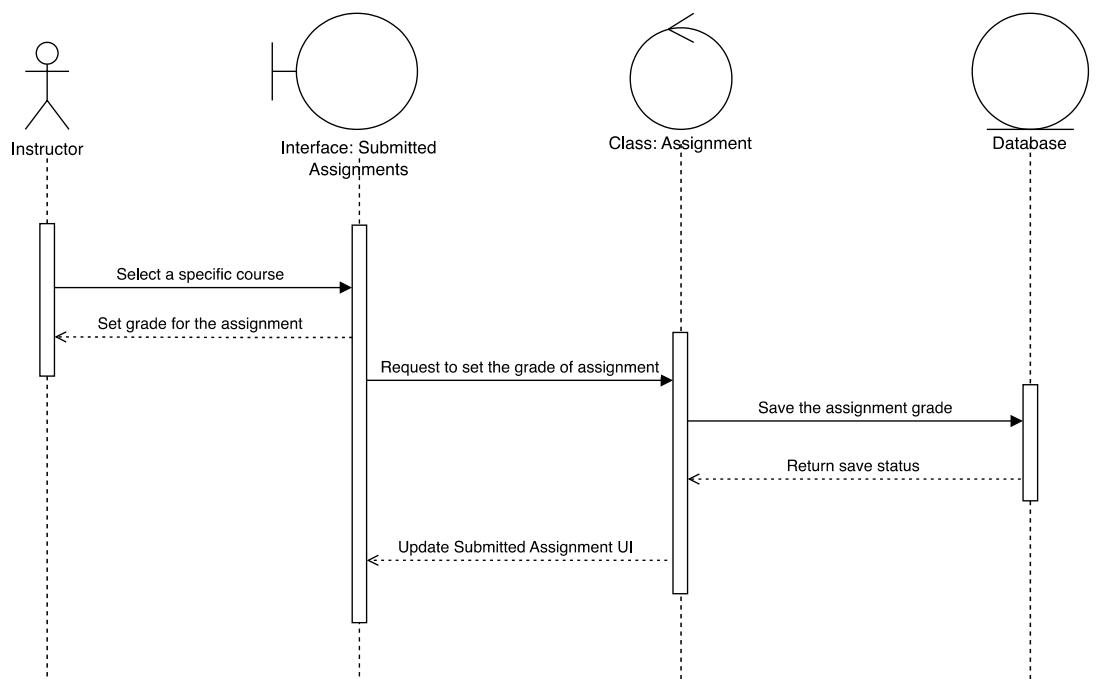
### 34. End Session



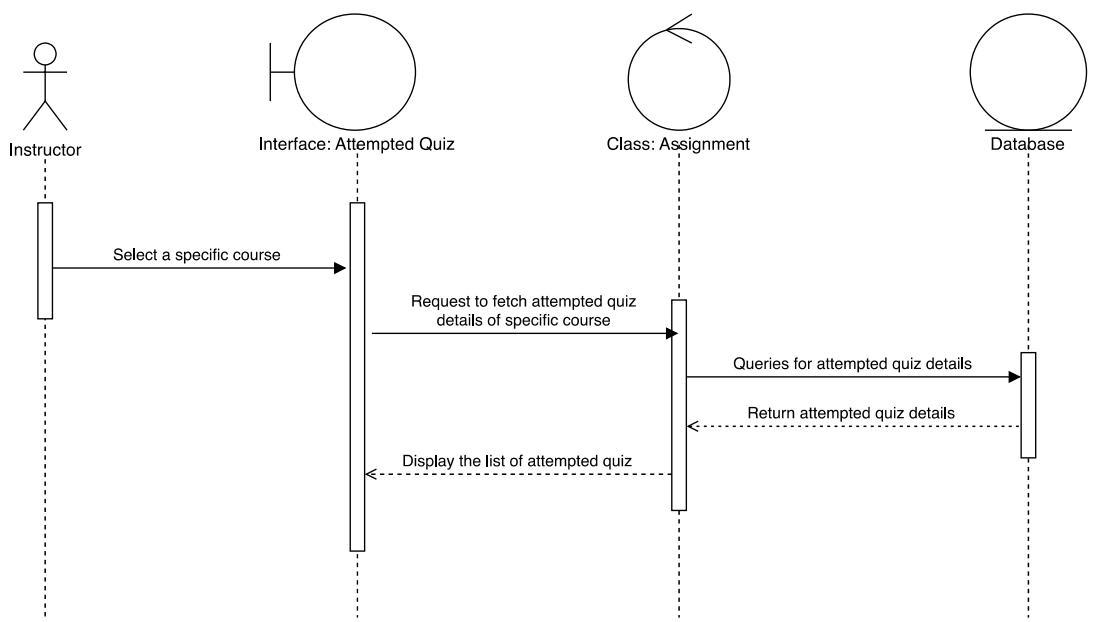
### 35. View Submitted Assignments



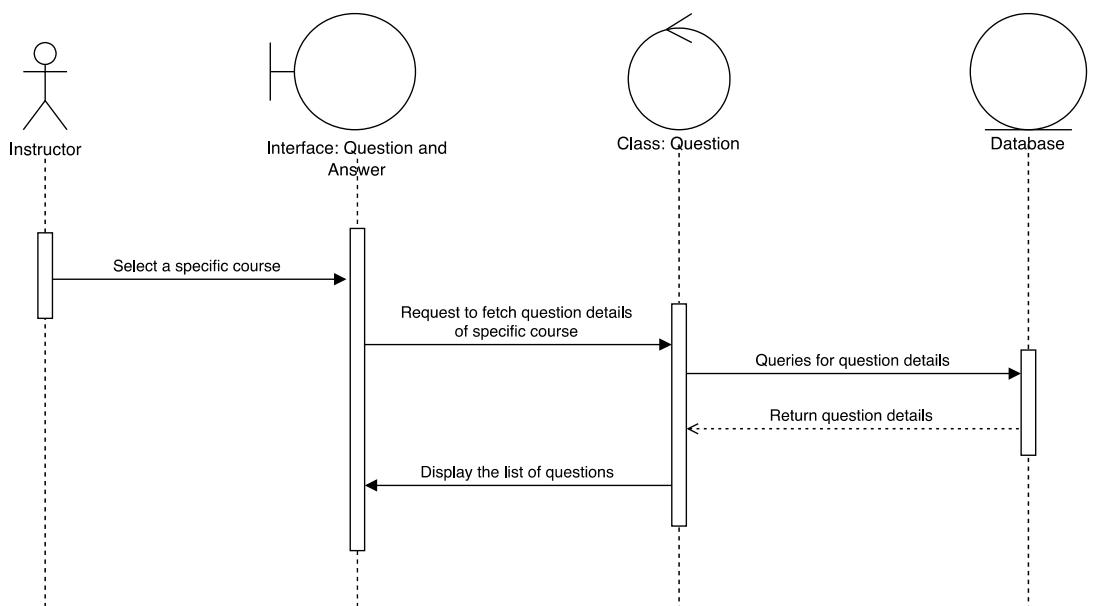
### 36. Grade Assignments



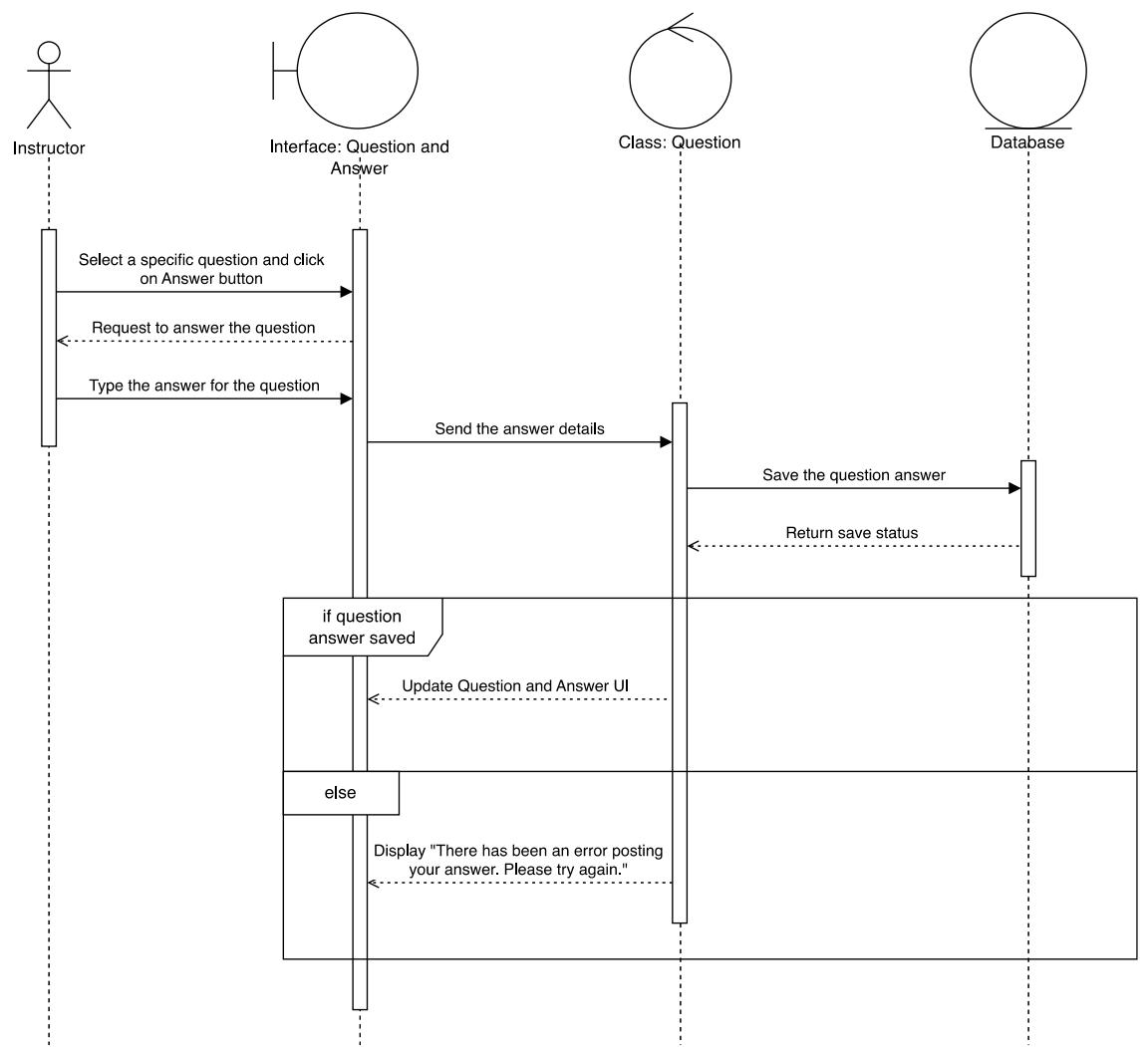
### 37. View Quiz Grade



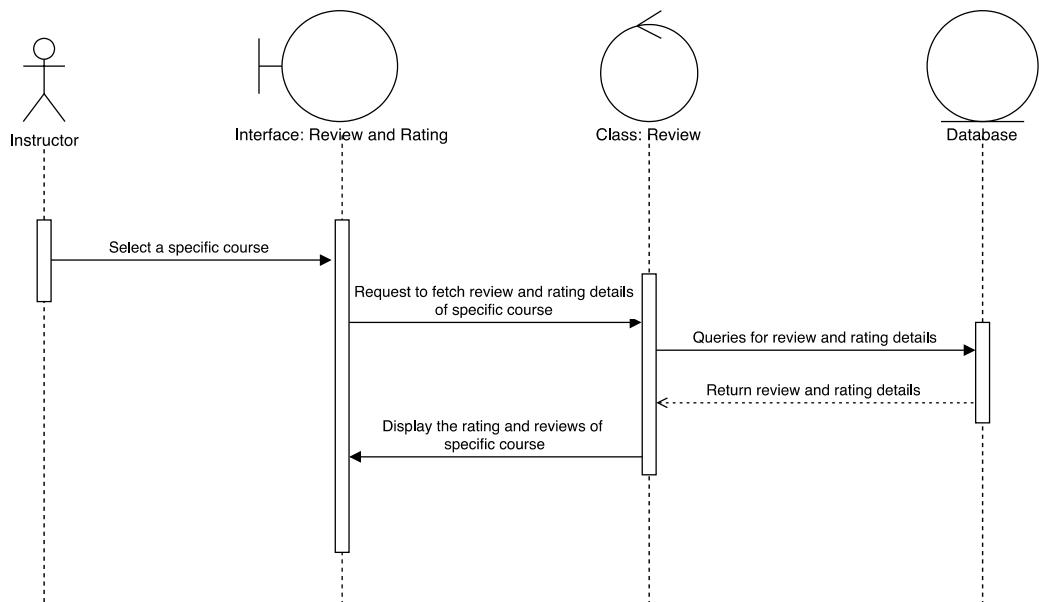
### 38. View Student Questions



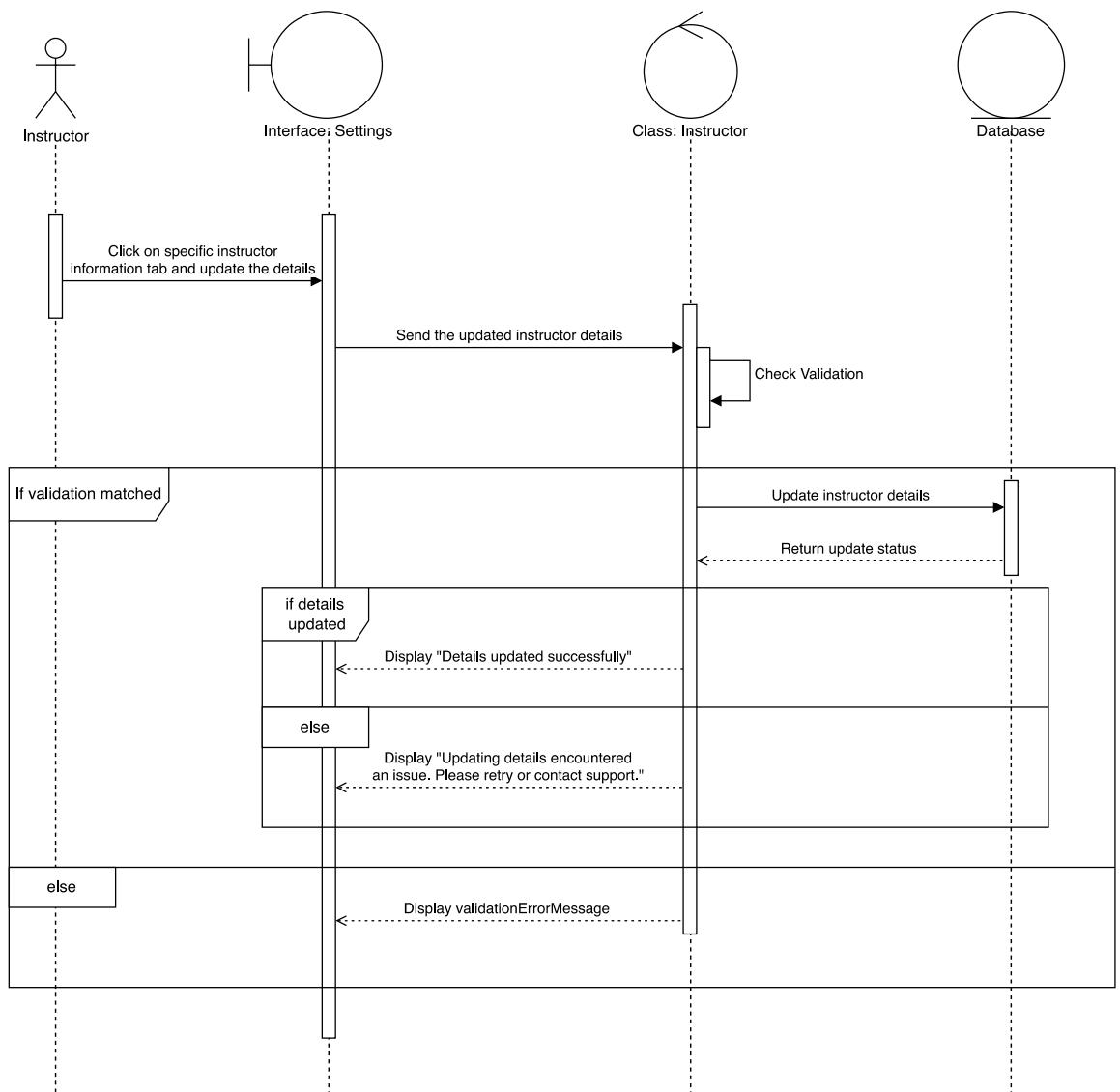
### 39. Answer Question



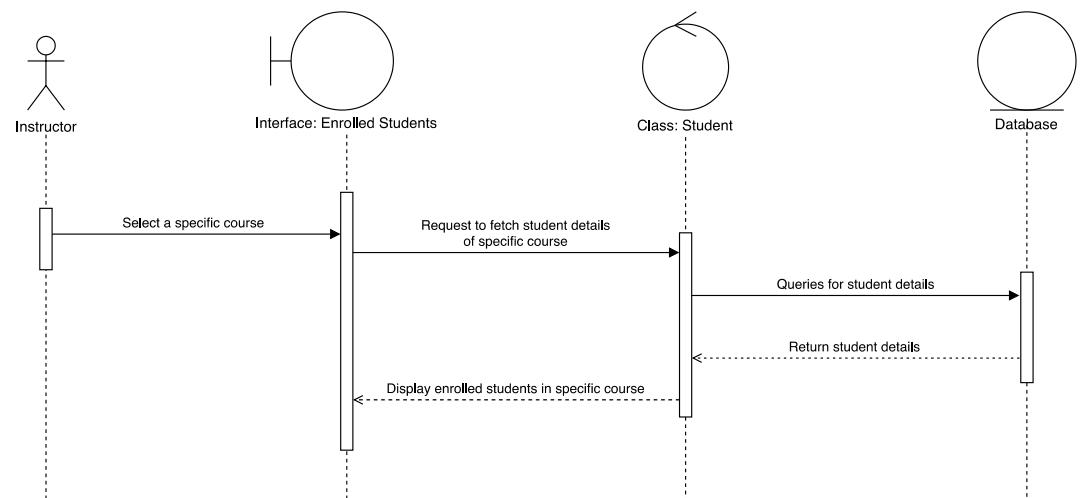
### 40. View Course Review Rating



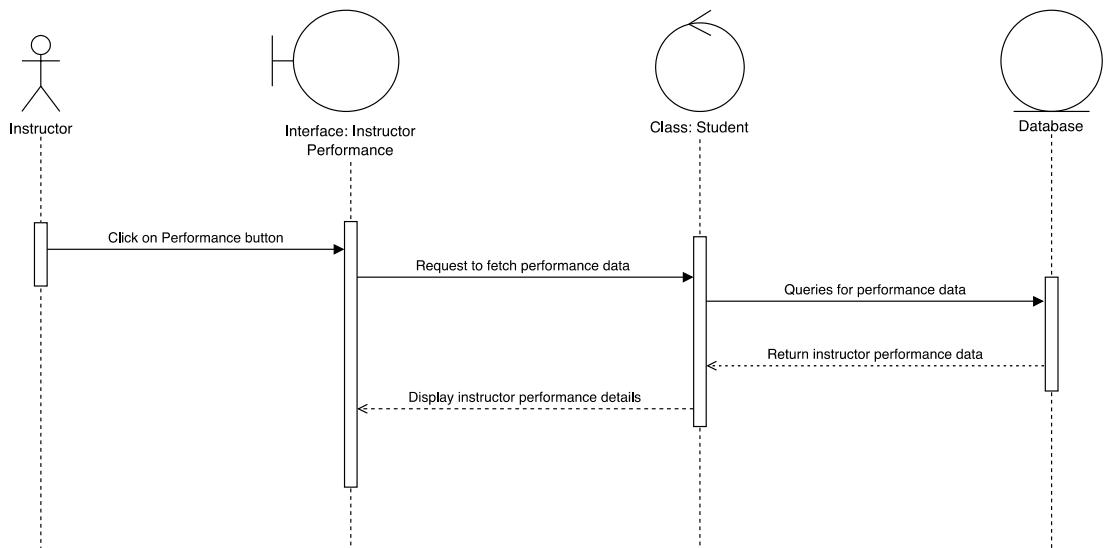
#### 41. Edit Instructor Profile



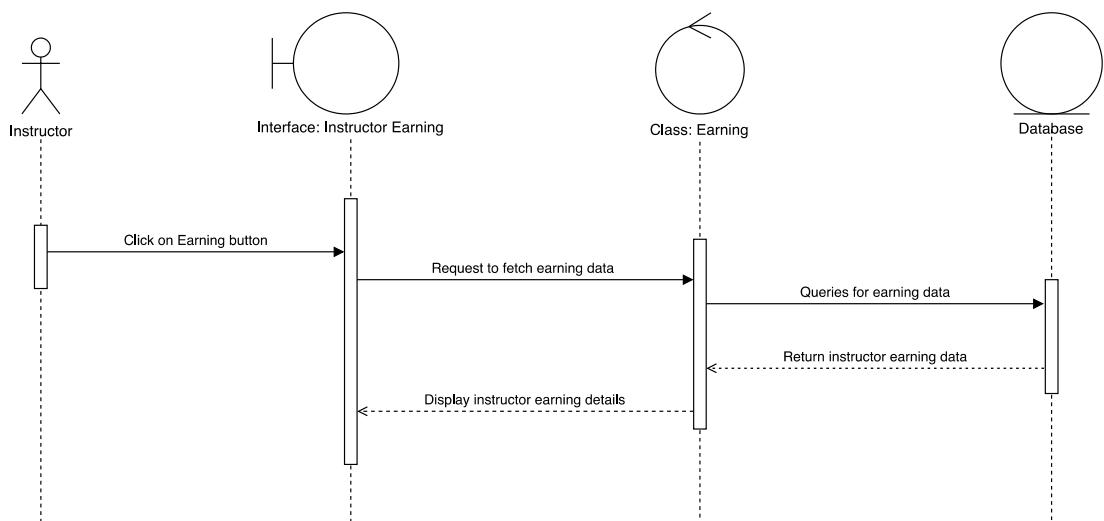
#### 42. View Enrolled Students



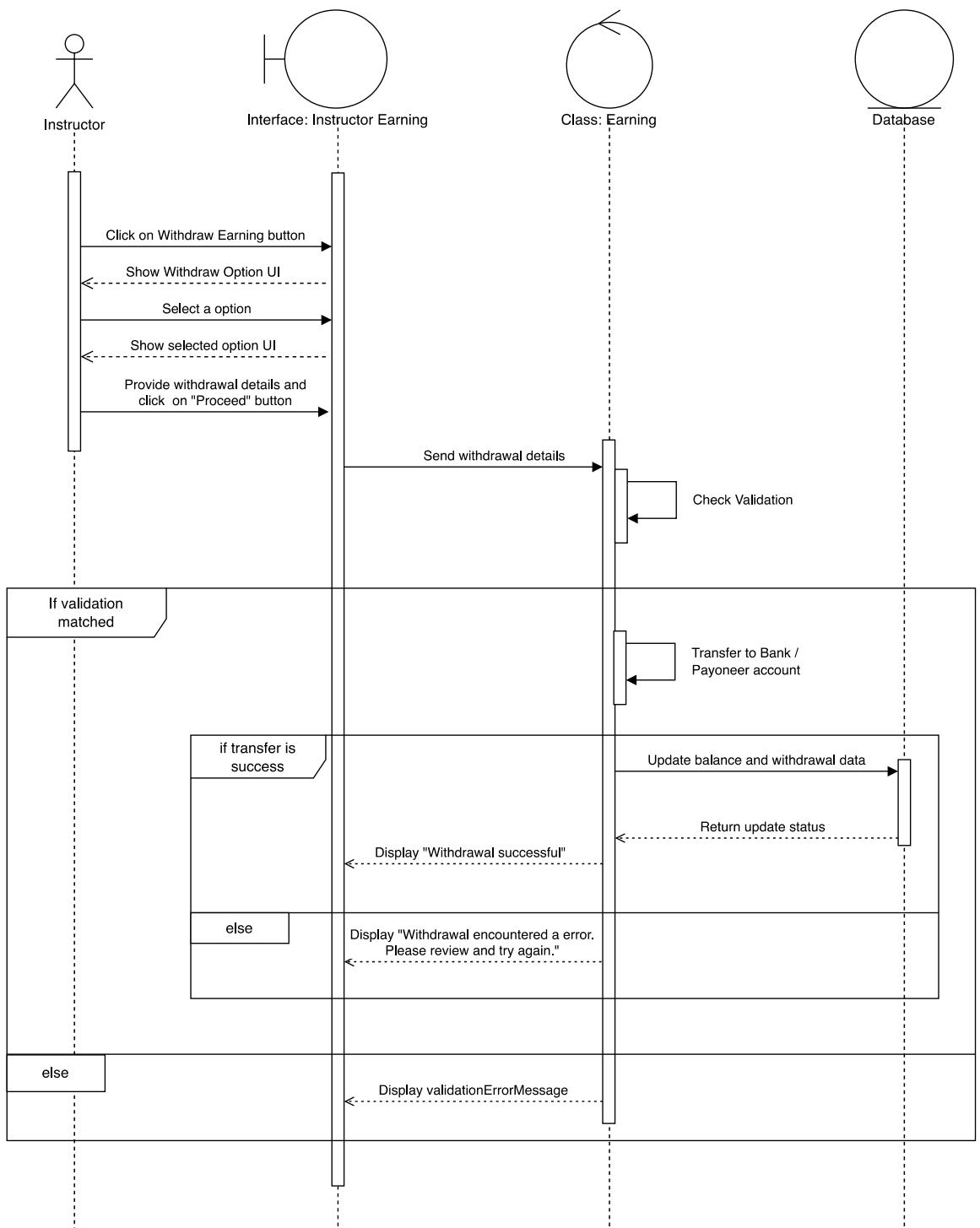
#### 43. View Instructor Performance



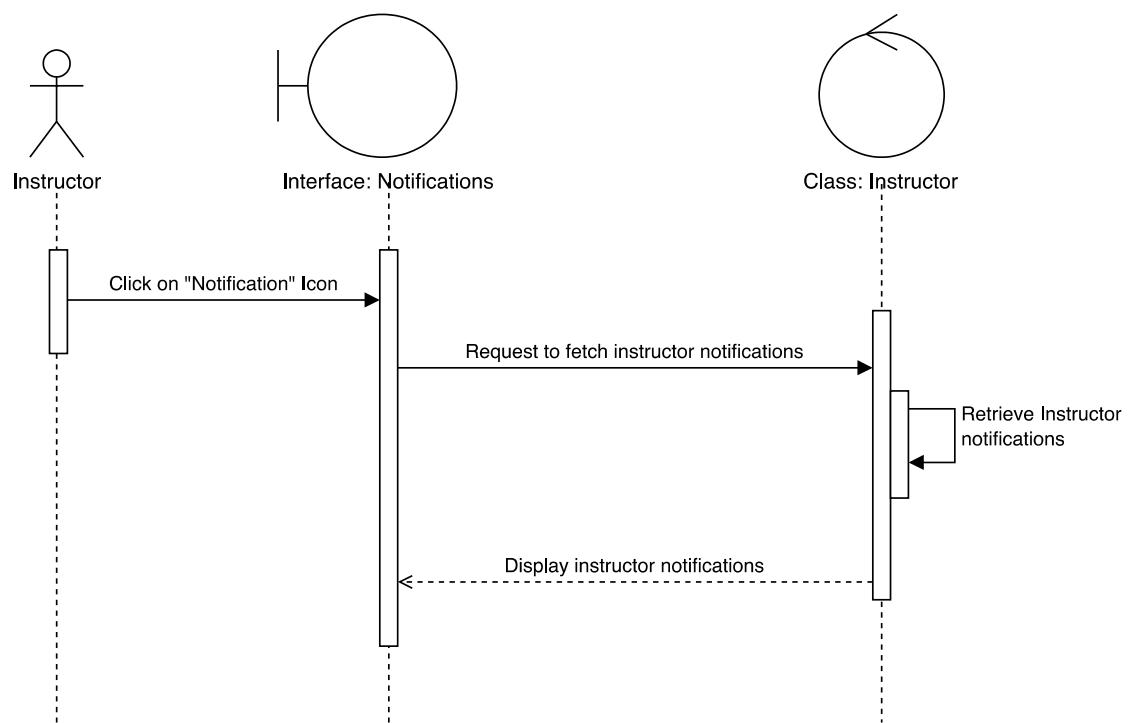
#### 44. View Earning



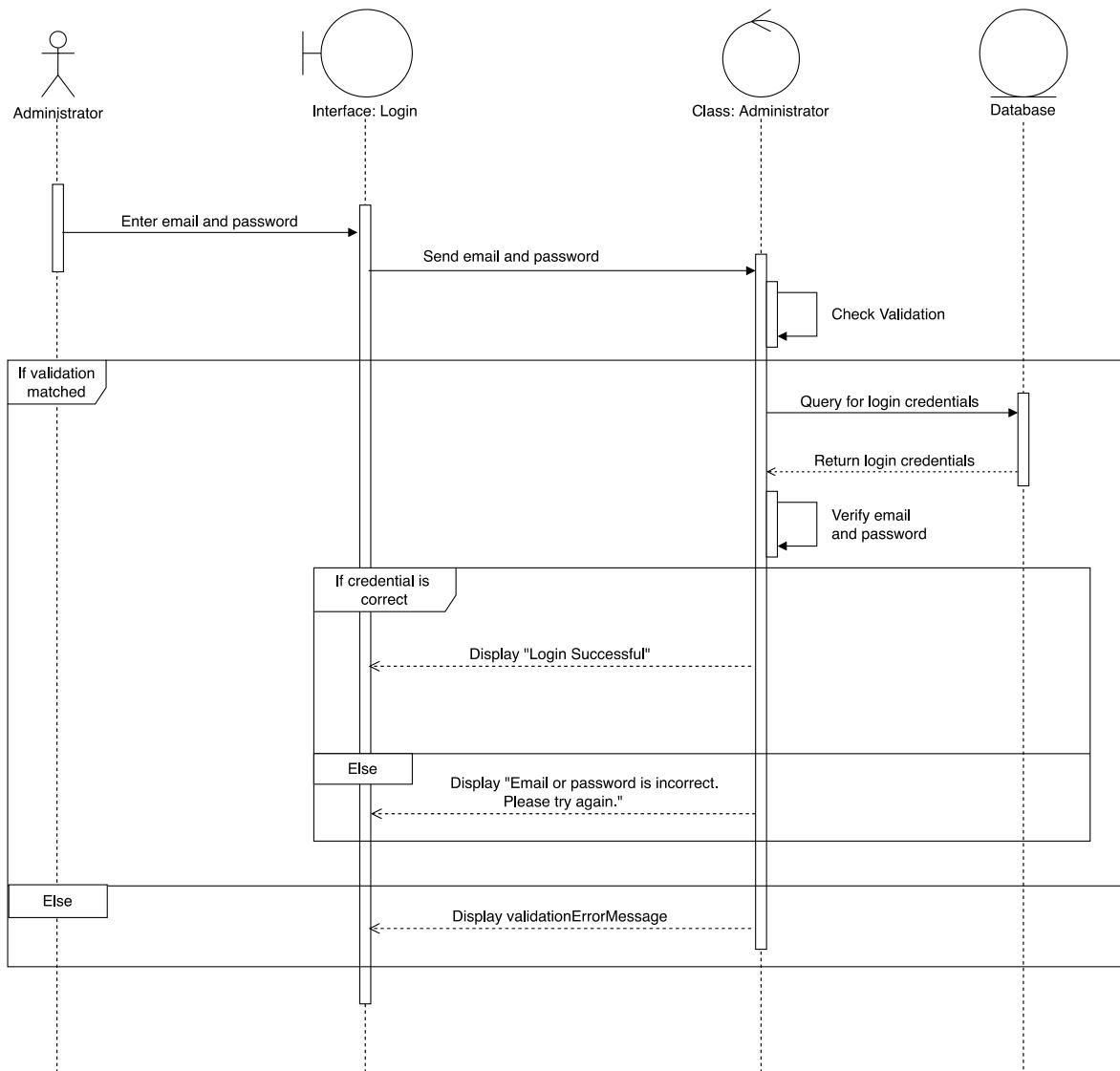
#### 45. Withdraw Earnings



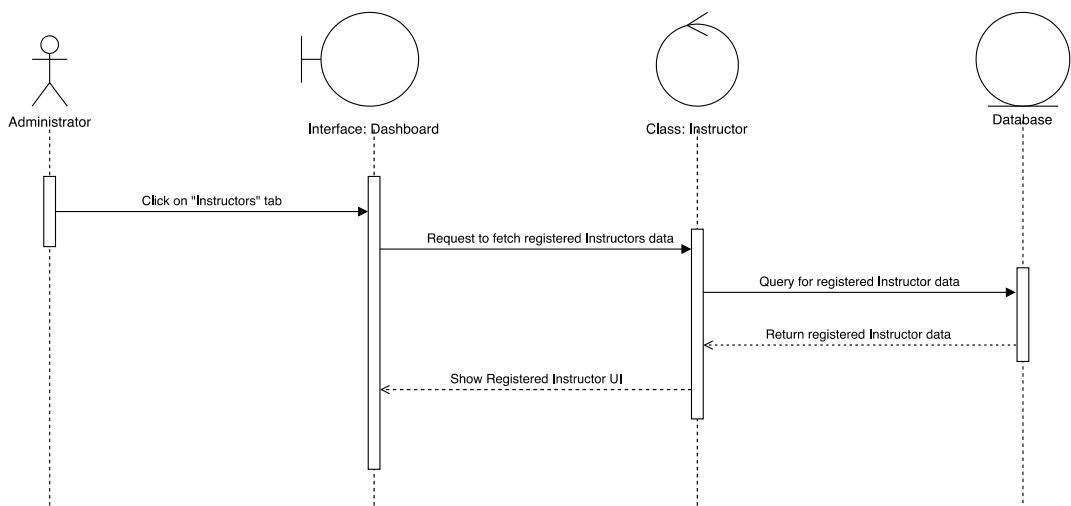
#### 46. View Instructor Notifications



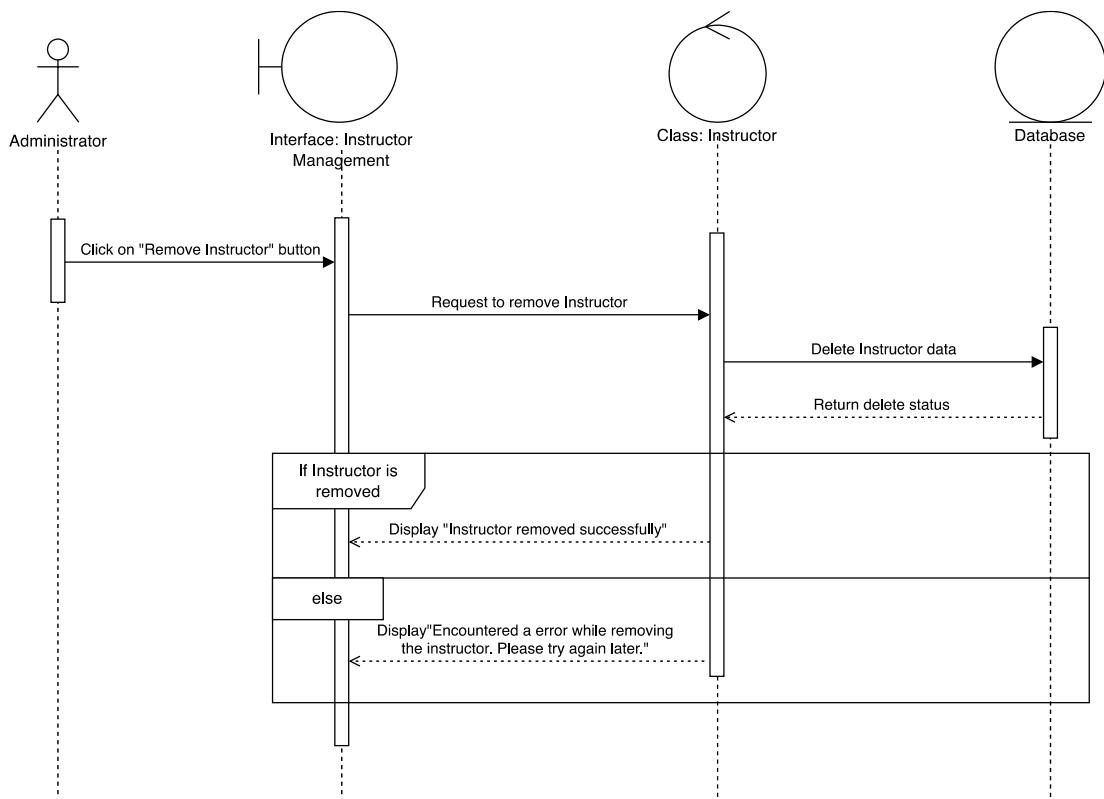
#### 47. Admin Login



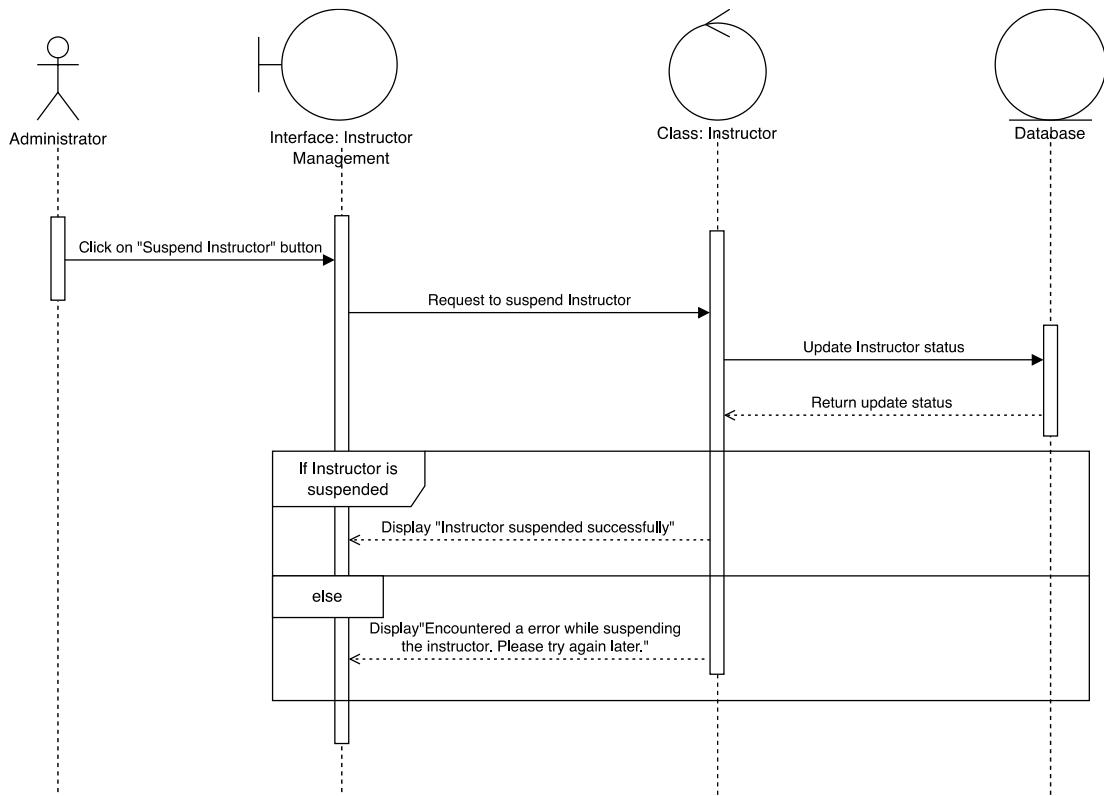
#### 48. View Registered Instructors



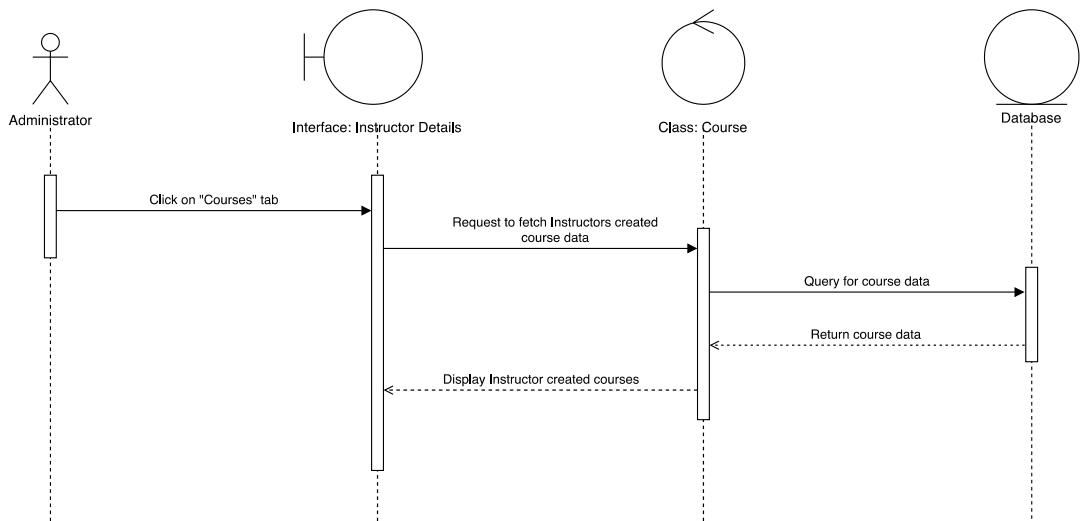
#### 49. Suspend Instructor



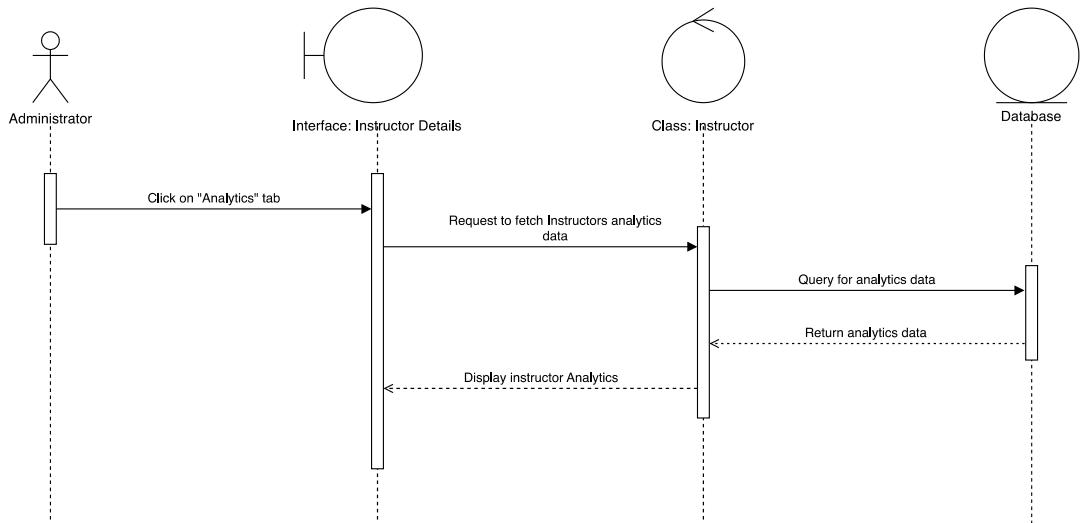
#### 50. Suspend Instructor



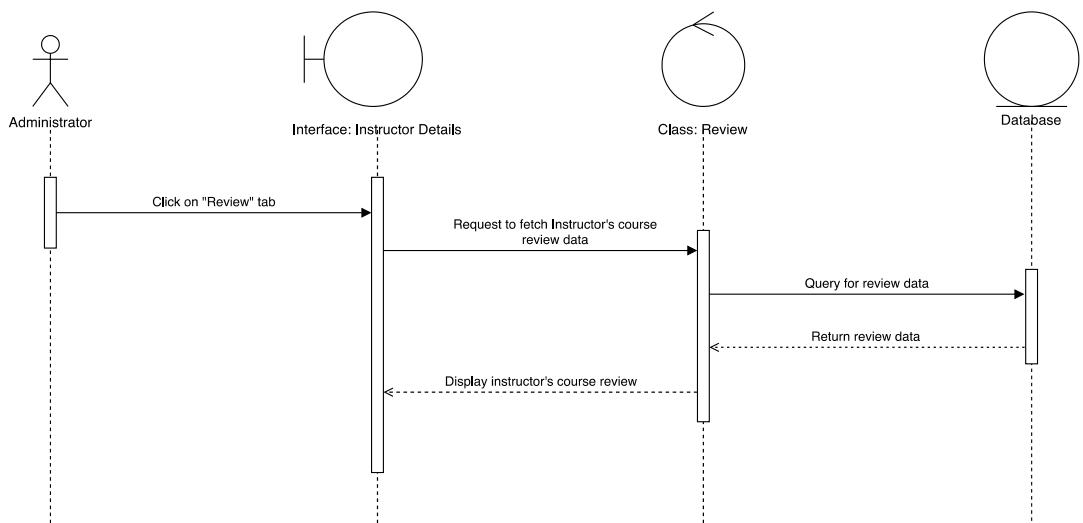
### 51. View Instructor Created Courses



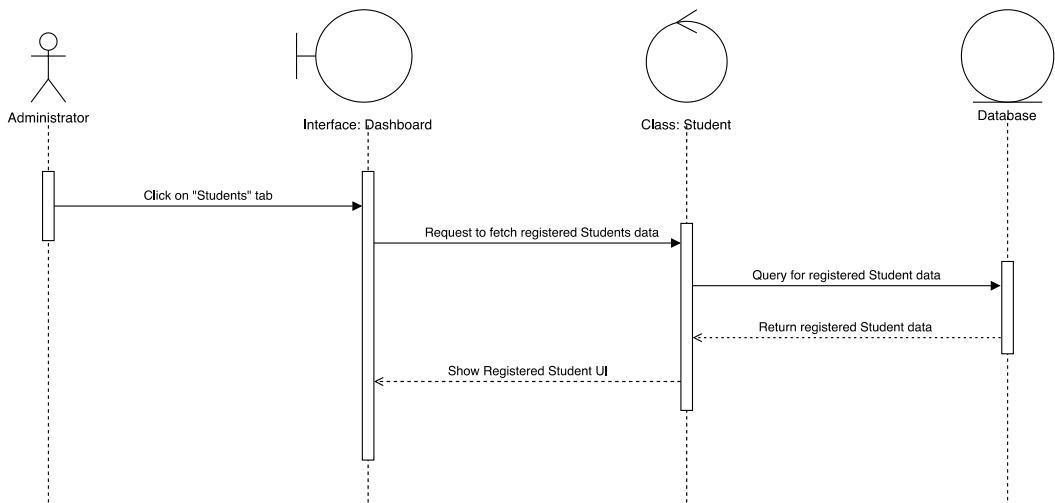
### 52. View Instructor Analytics



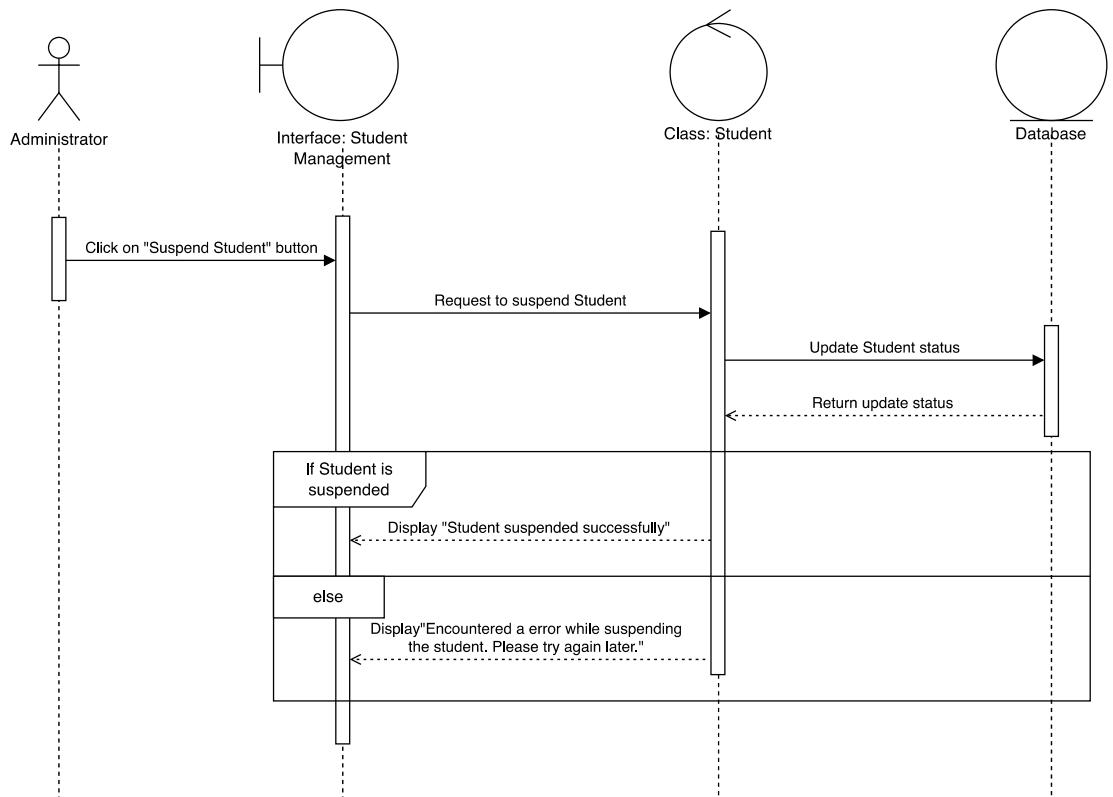
### 53. View Instructor's Course Review



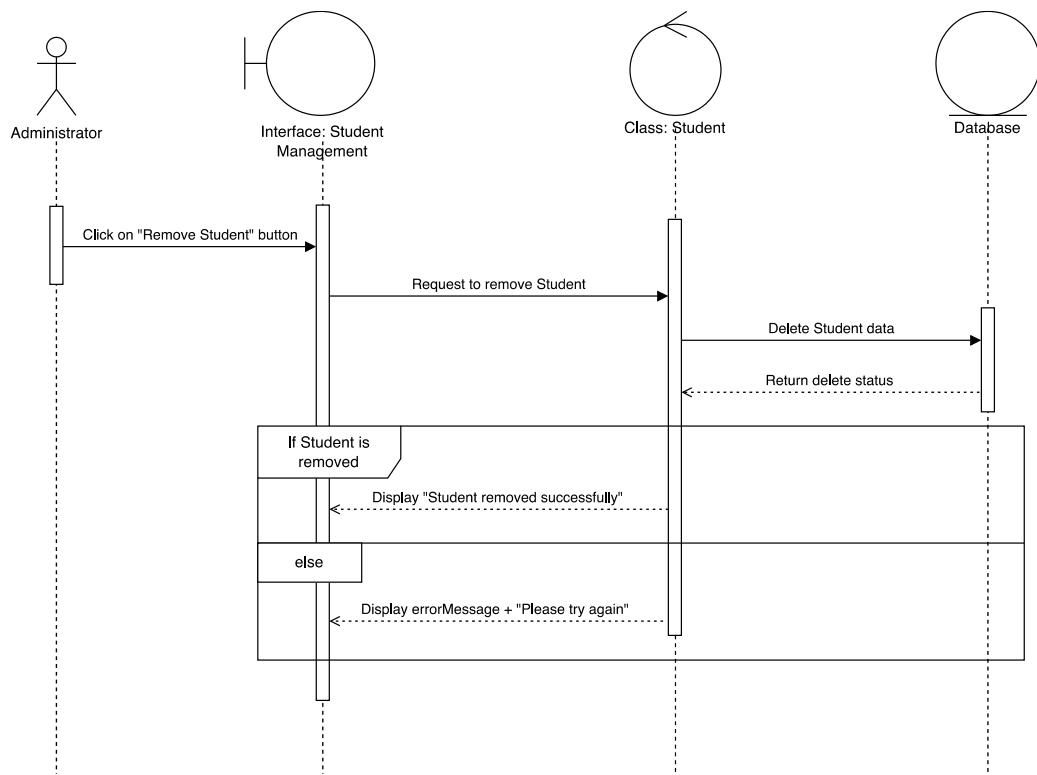
#### 54. View Registered Students



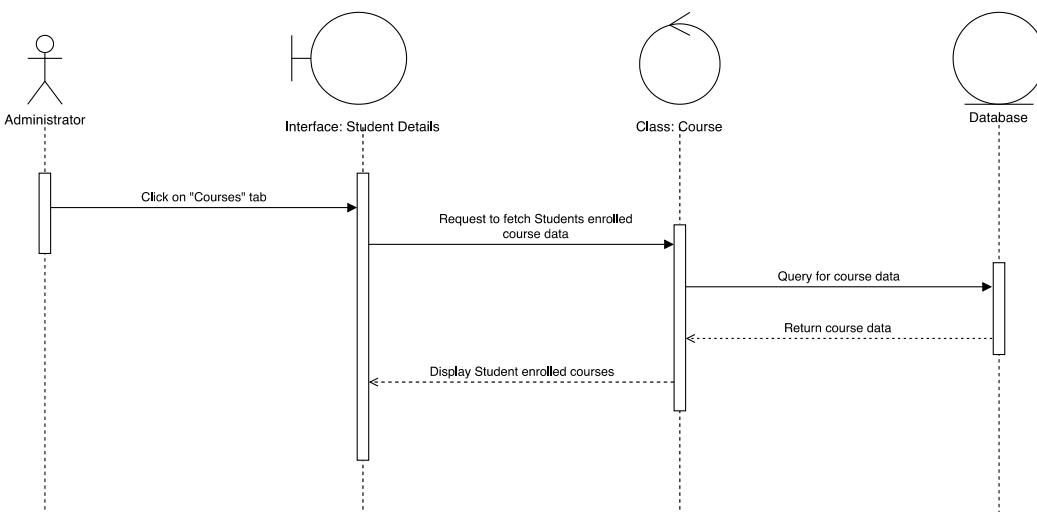
#### 55. Suspend Student



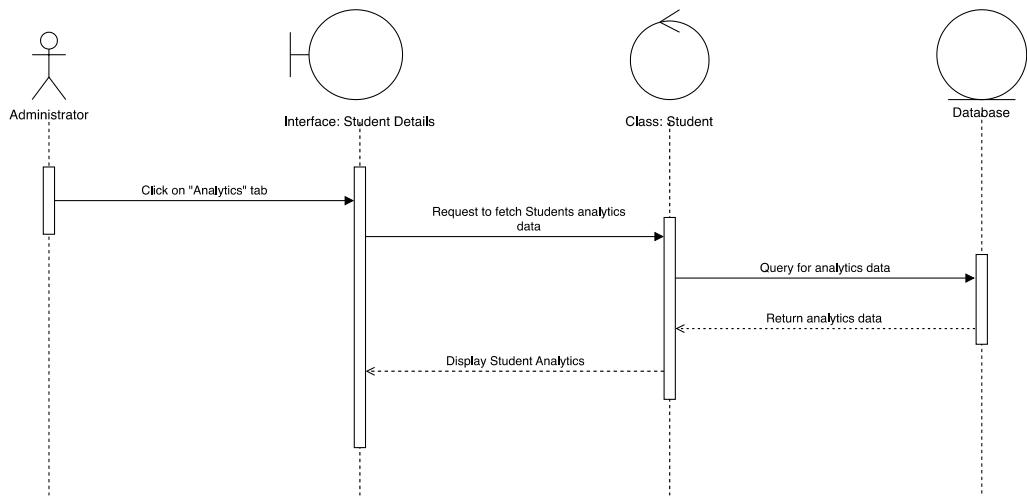
## 56. Remove Student



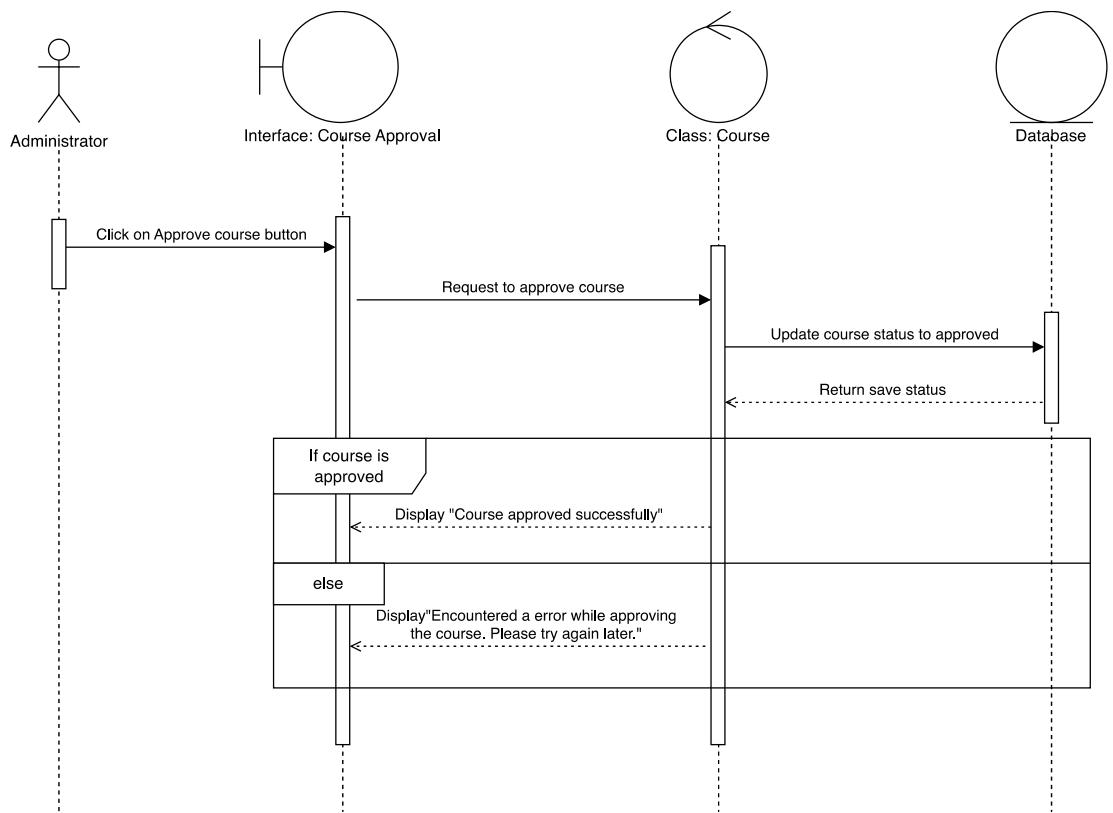
## 57. View Student Enrolled Courses



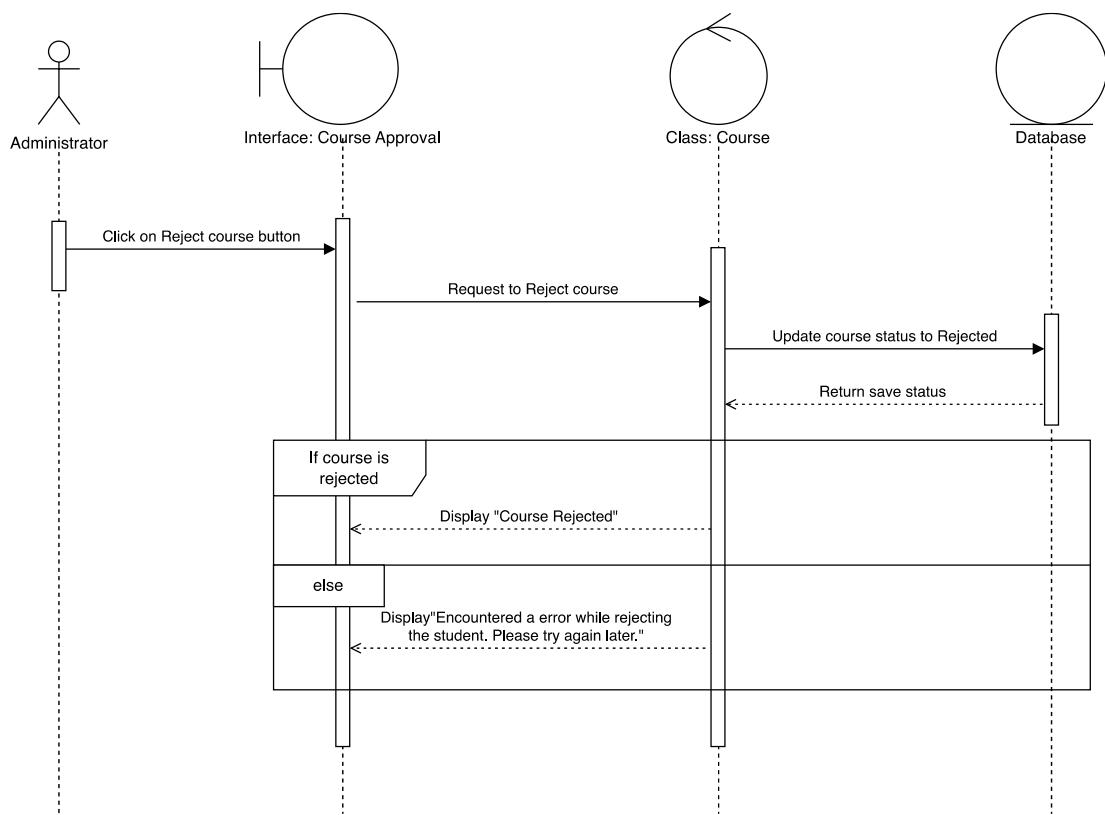
## 58. View Student Analytics



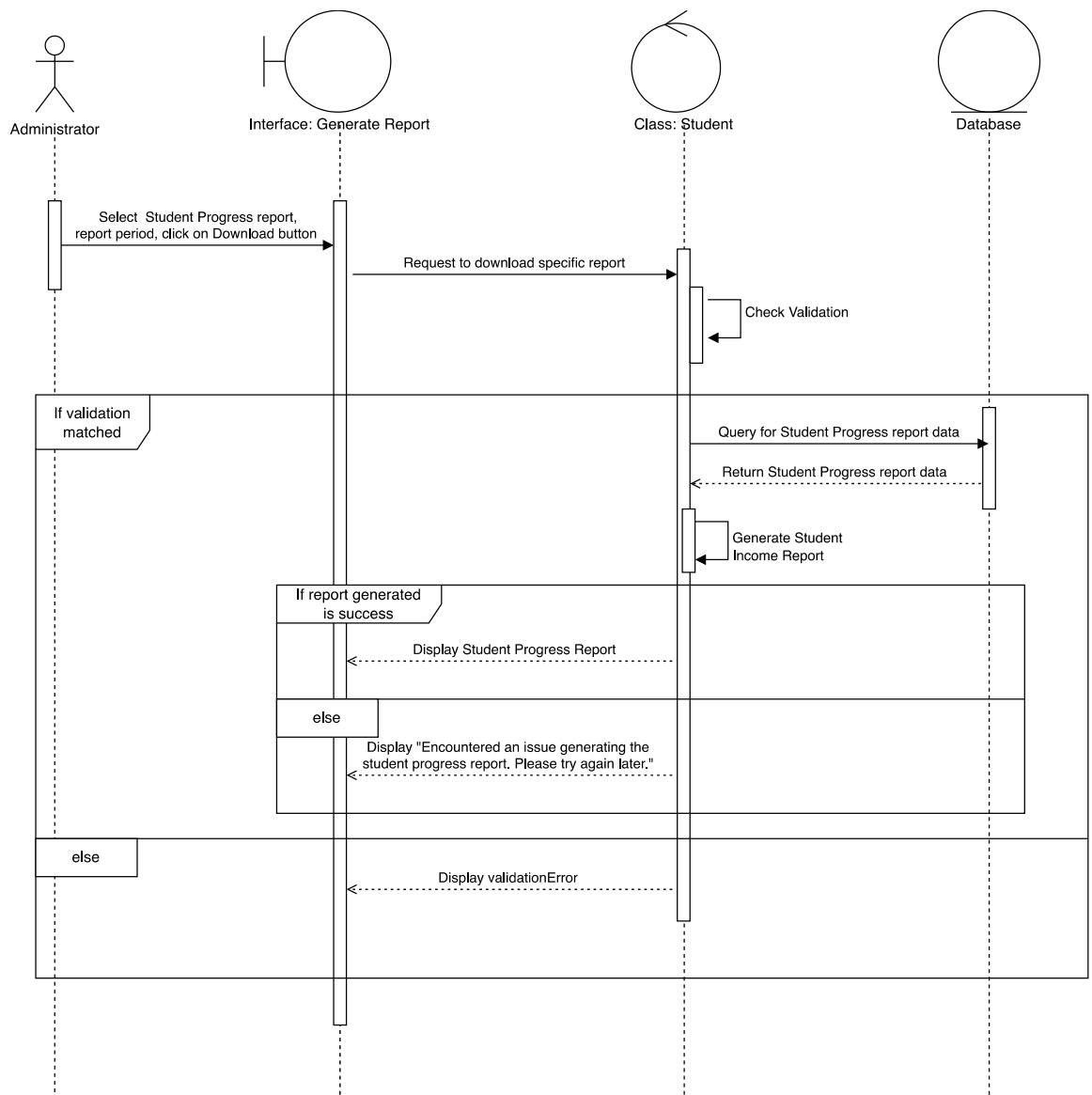
## 59. Approve Course



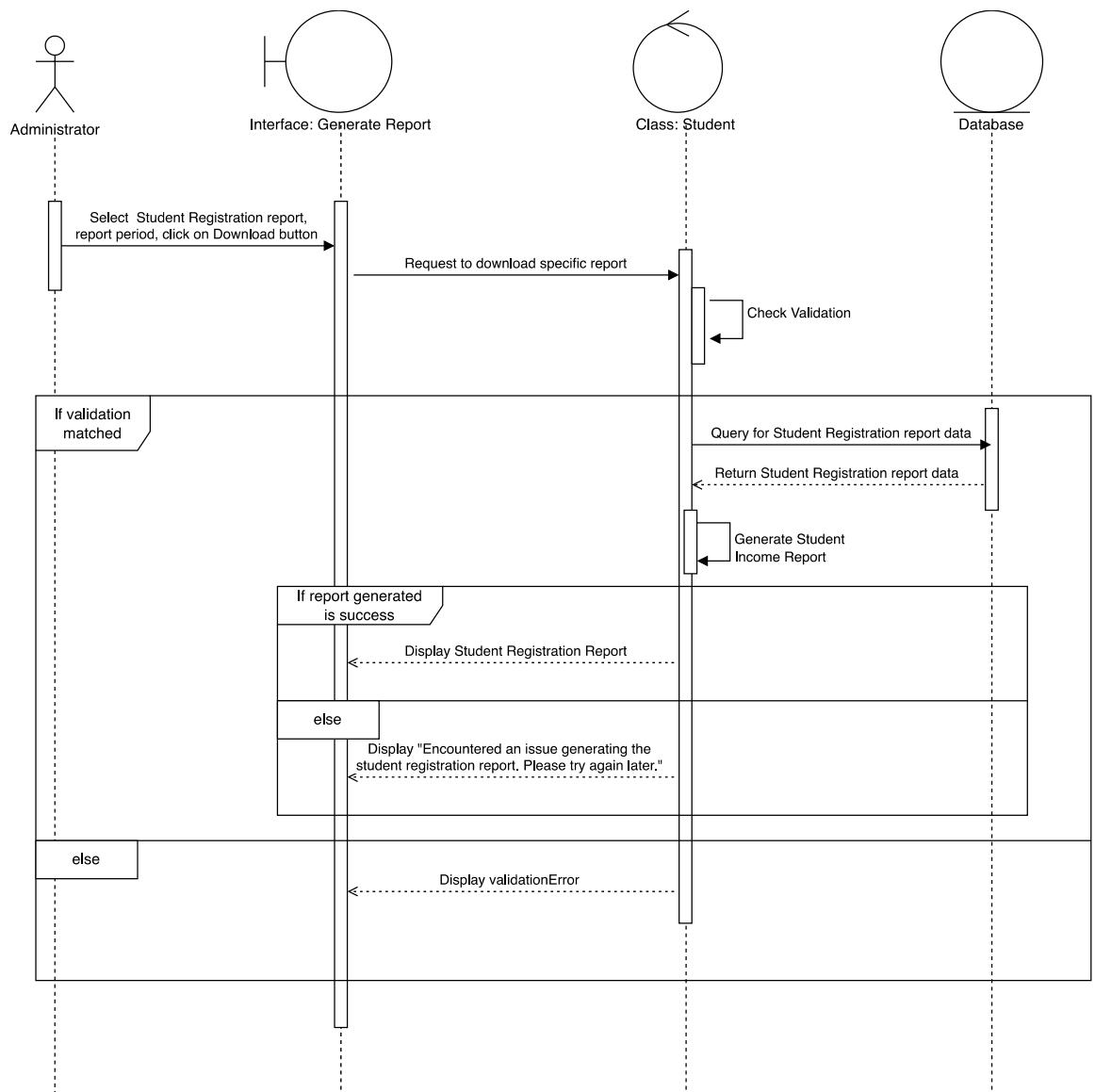
## 60. Reject Course



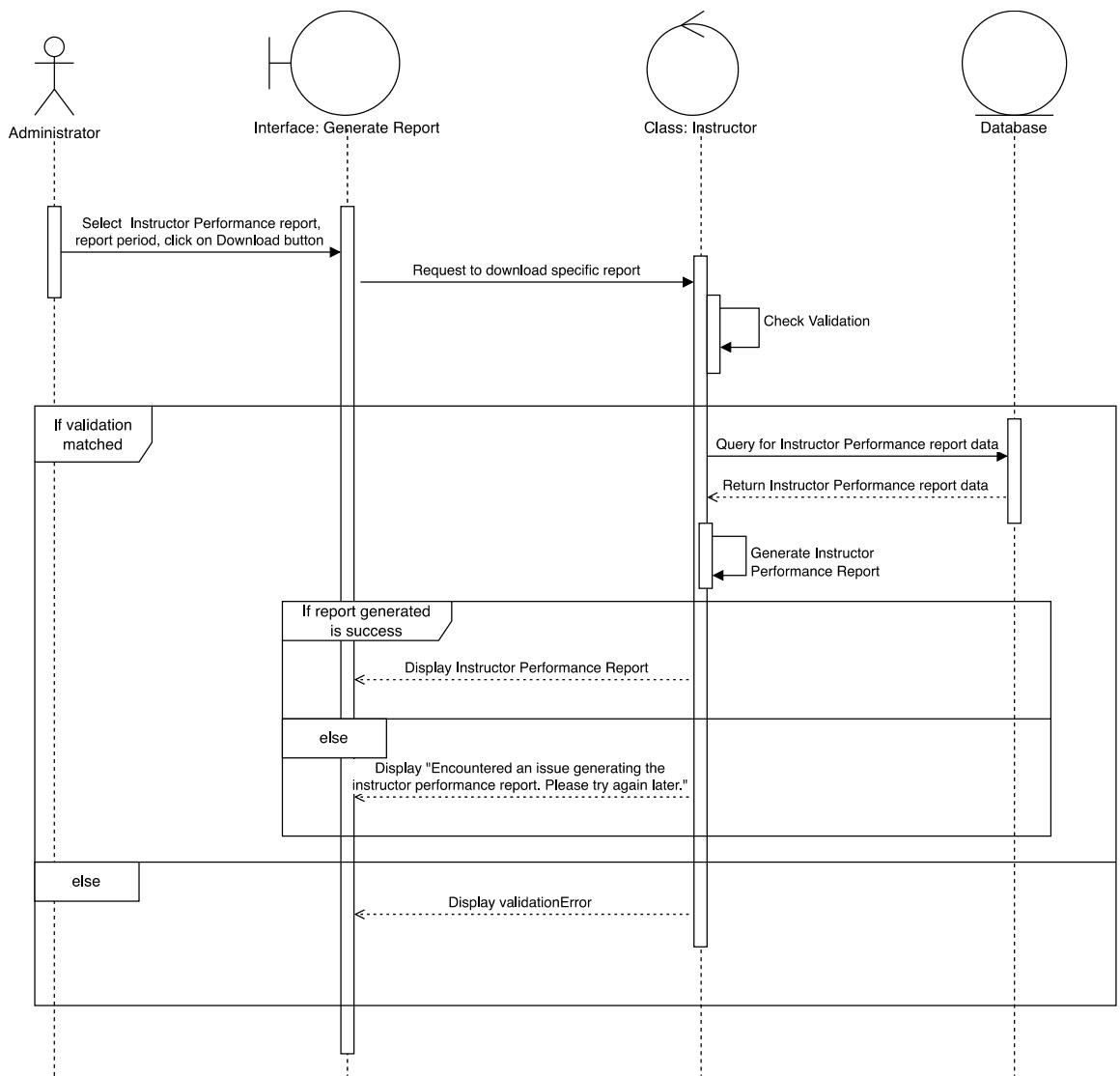
## 61. Generate Student Progress Report



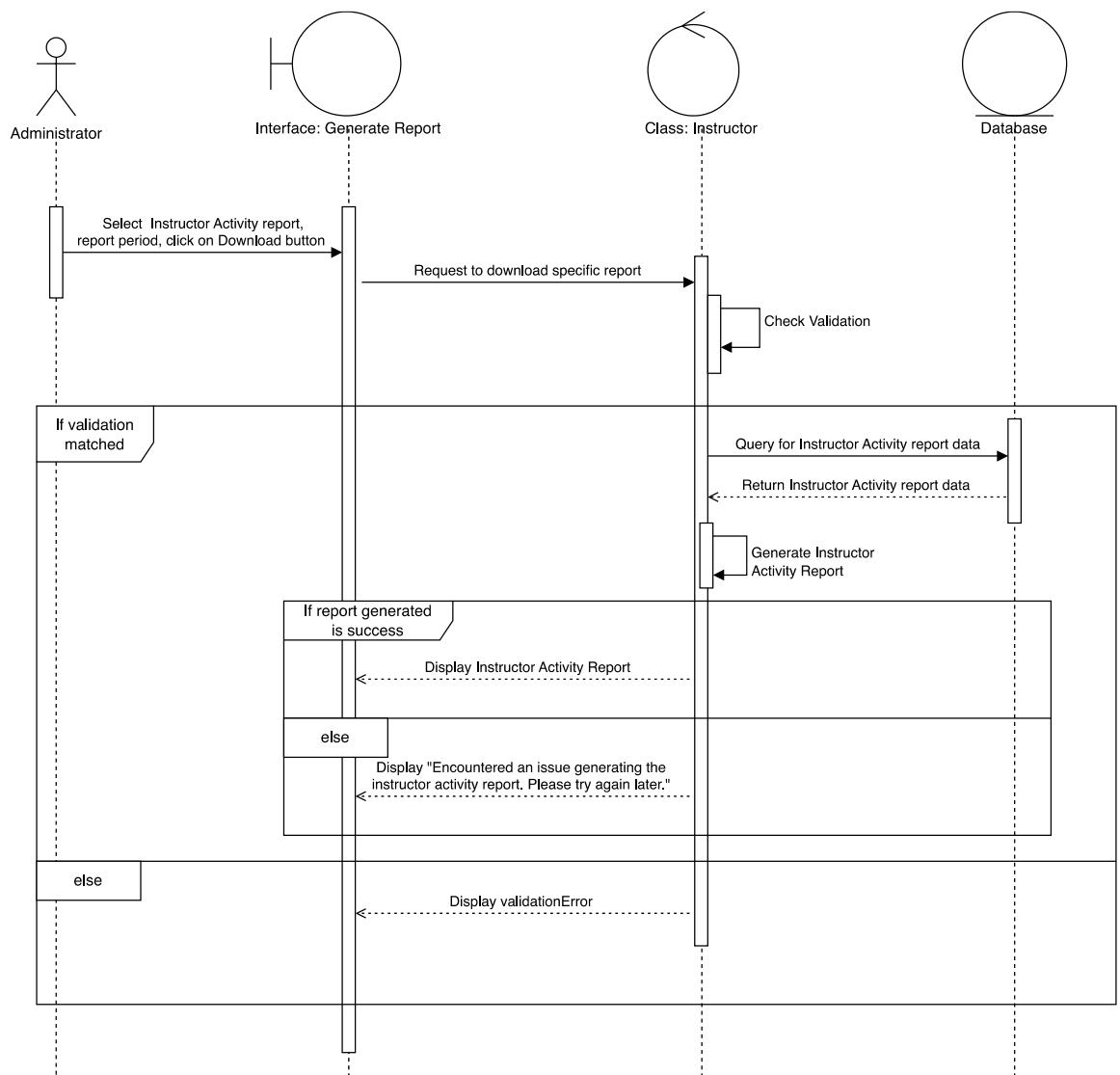
## 62. Generate Student Registration Report



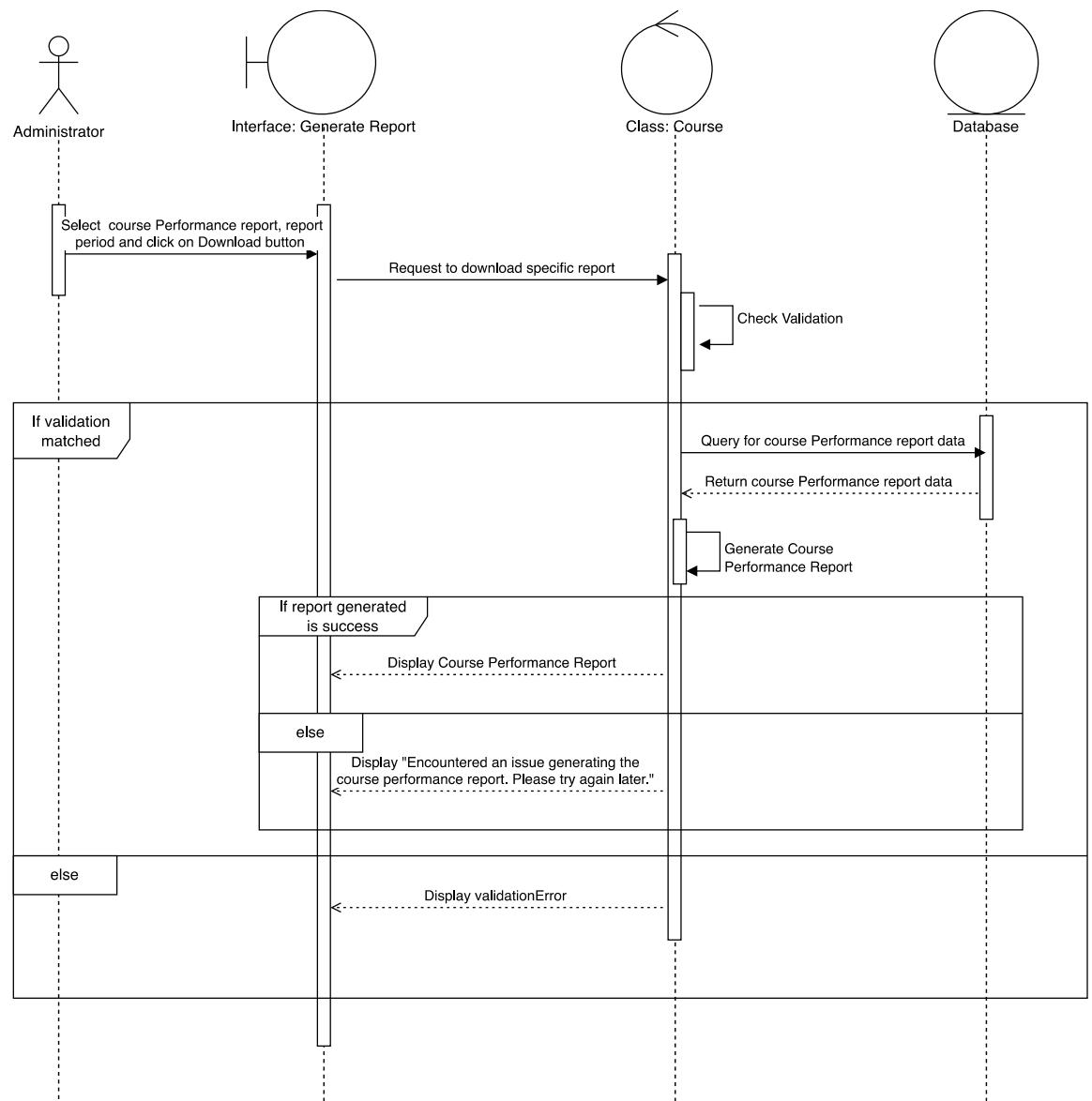
### 63. Generate Instructor Performance Report



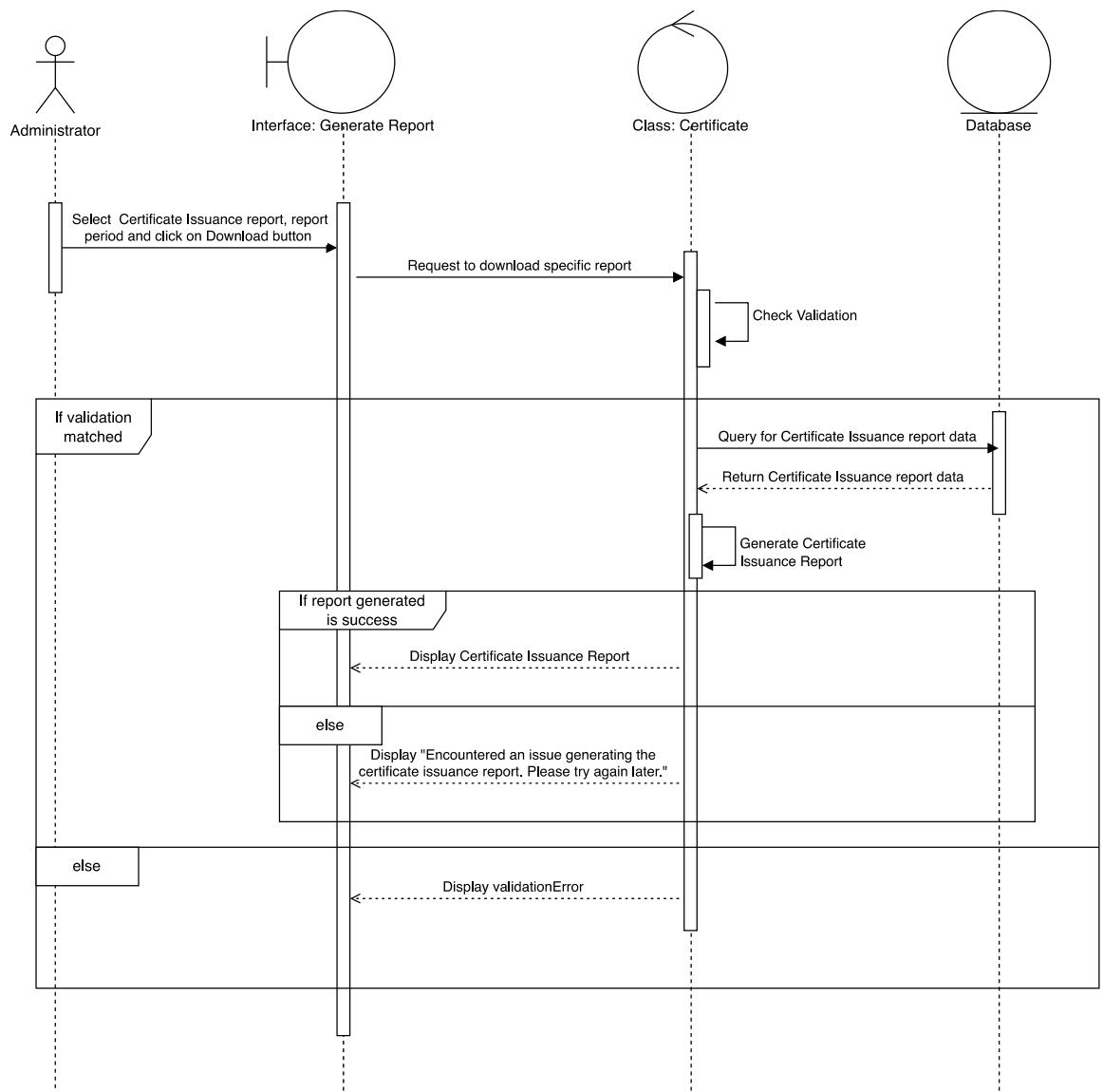
#### 64. Generate Instructor Activity Report



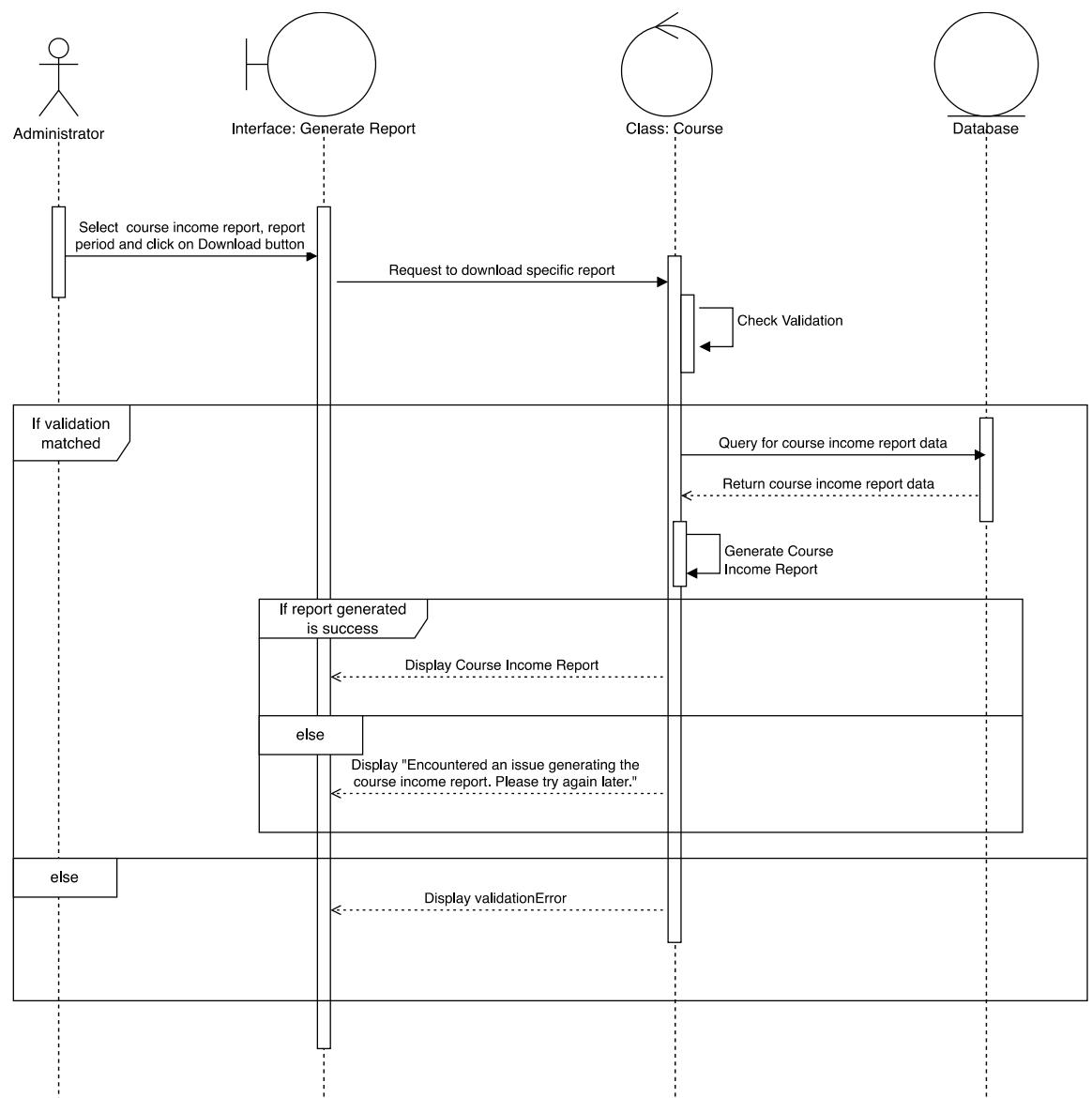
## 65. Generate Course Performance Report



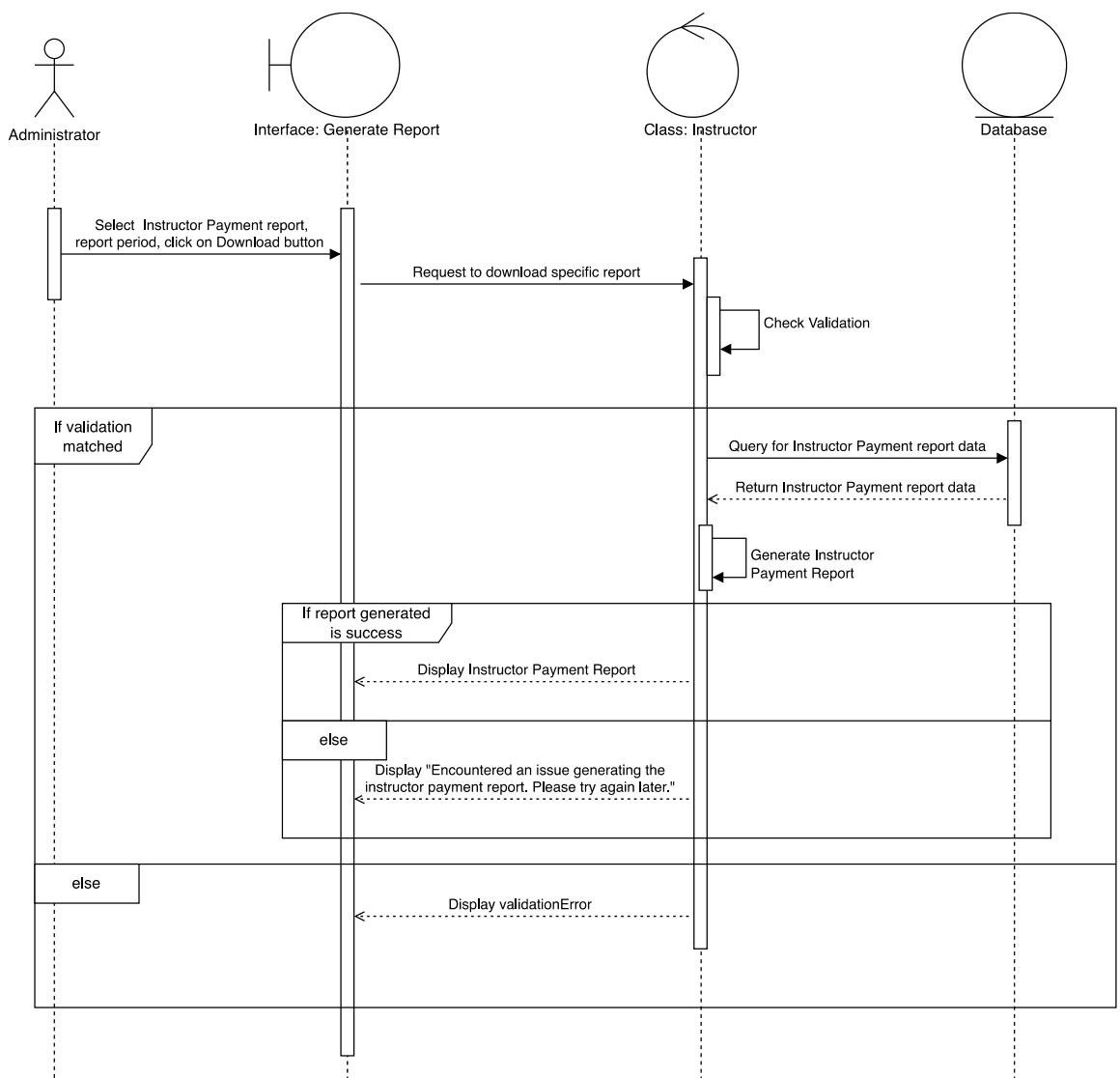
## 66. Generate Certificate Issuance Report



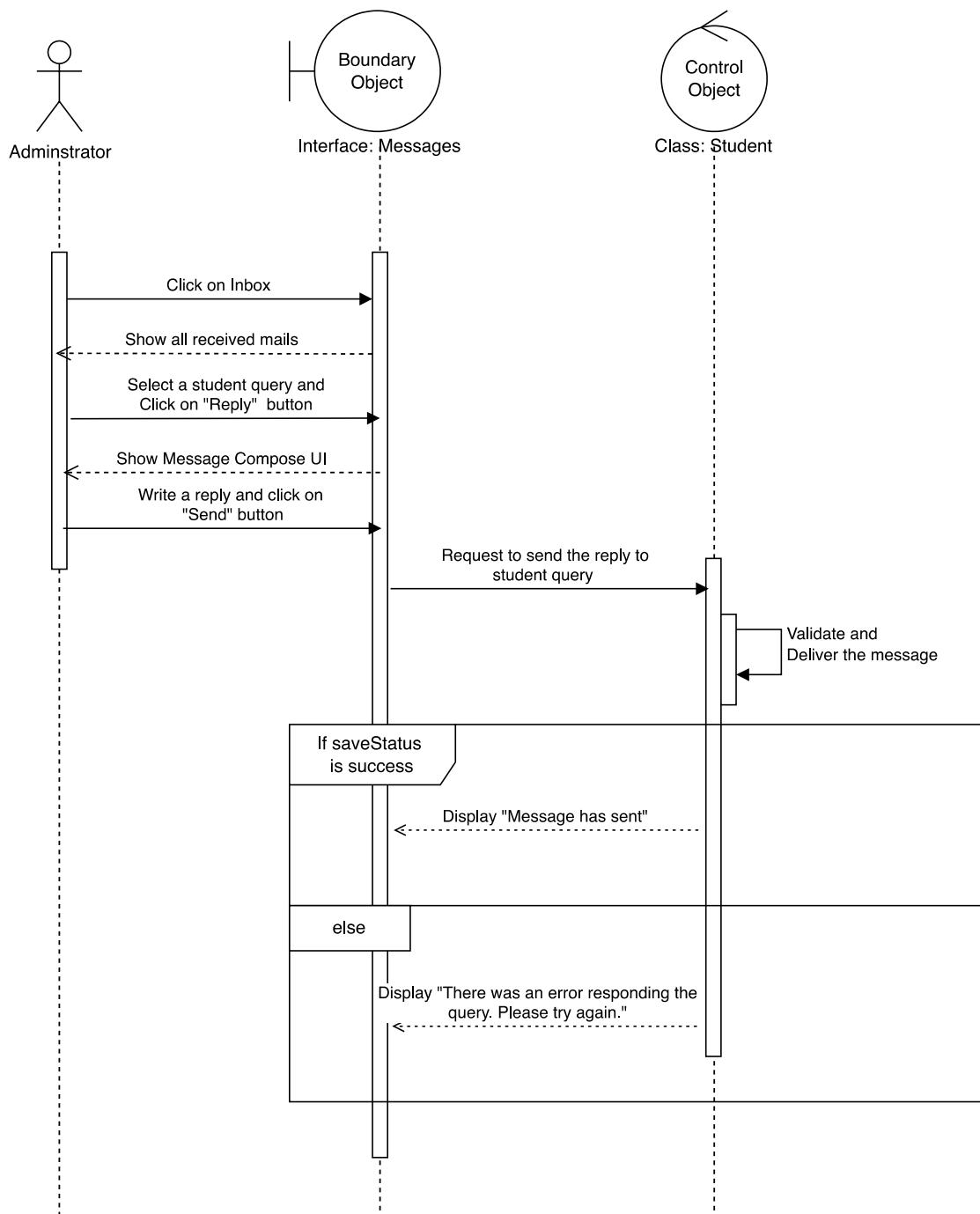
## 67. Generate Course Income Report



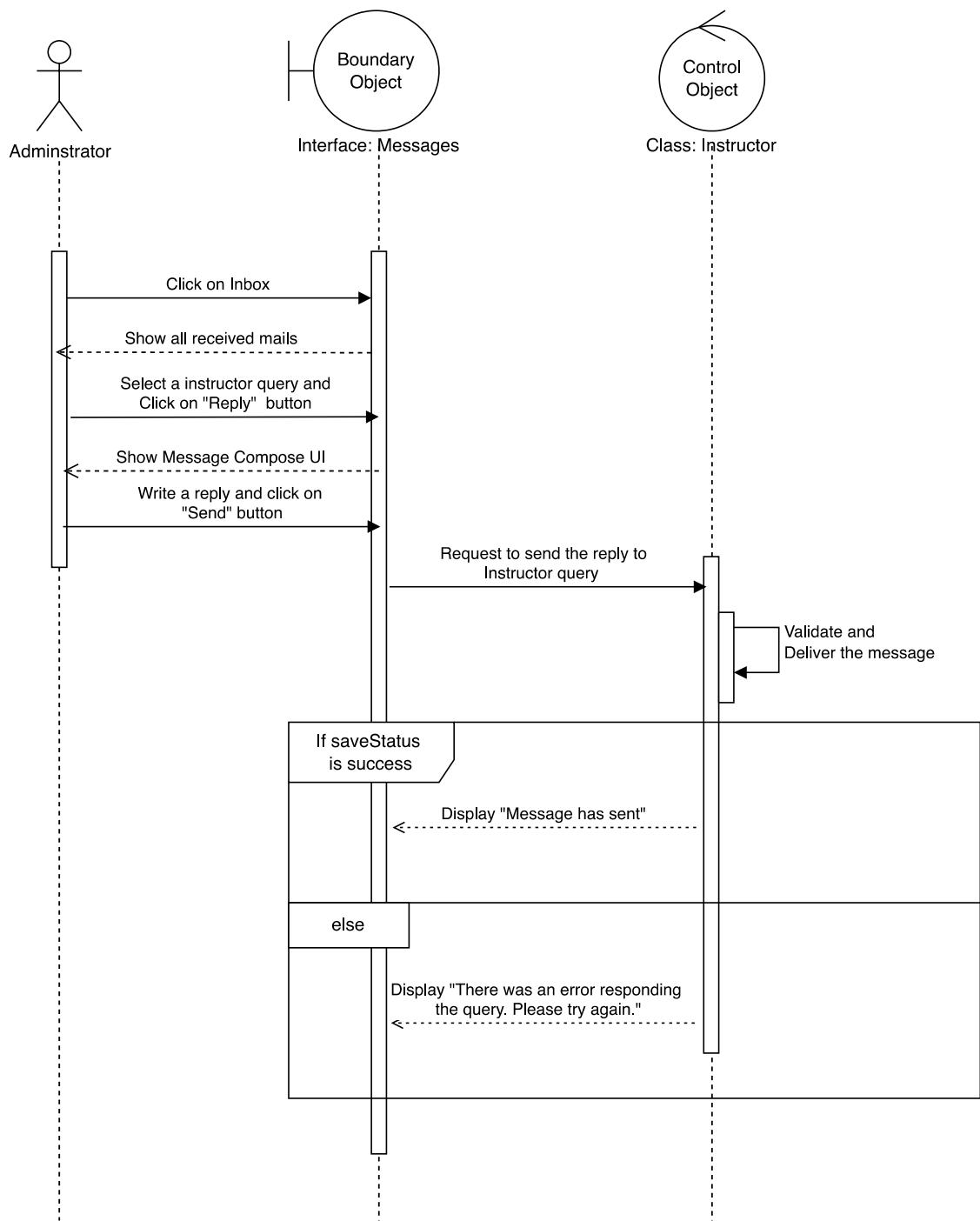
## 68. Generate Instructor Payment Report



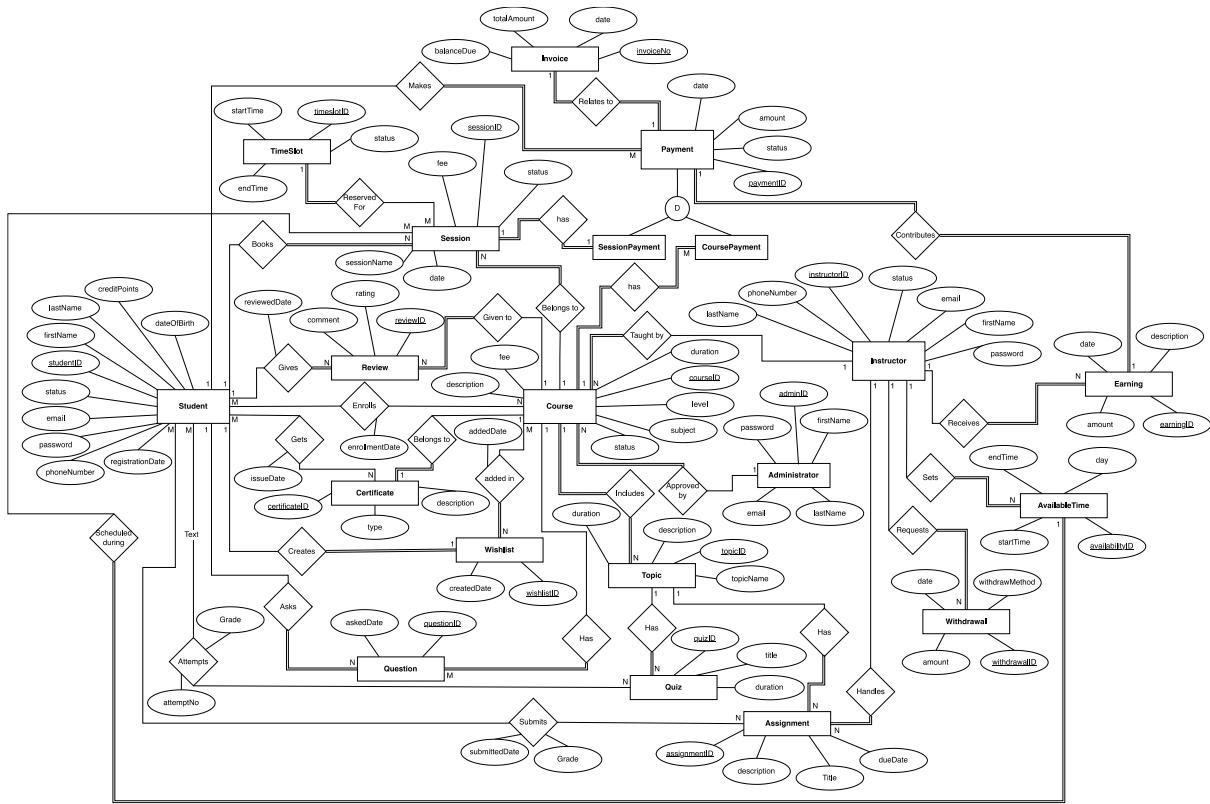
## 69. Respond to Student Query



## 70. Respond to Instructor Query



### 3.3 ER Diagram of the Proposed System



### **3.4 Chapter Summary**

This chapter provides a visual exploration of the current system compared to the proposed software solution. It uses UML diagrams like existing and proposed use case diagrams, class diagrams, and sequence diagrams for use cases to illustrate how the system works and an ER (Entity-Relationship) diagram that outlines the relationships and dependencies between entities in the database. These visuals show the potential changes and the structure of the suggested solution.

# Chapter 4: Solution Design

## 4.1 Introduction

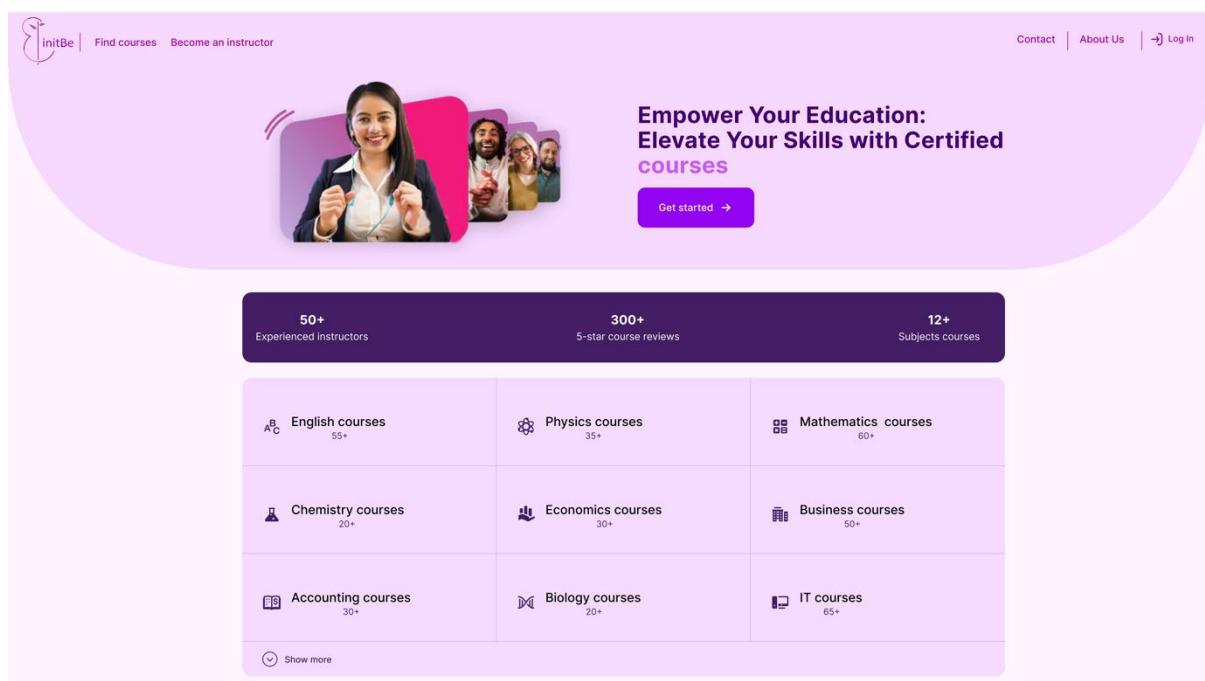
In this chapter, we outline the detailed design of our proposed solution: an online learning platform tailored for modern educational needs. This chapter covers various key components, including interface design, database architecture, and report layouts. Our goal is to create an easy-to-use, intuitive platform that enhances the learning experience for both students and educators.

## 4.2 Interface Design

Interface Number: 1

Interface Name: Homepage

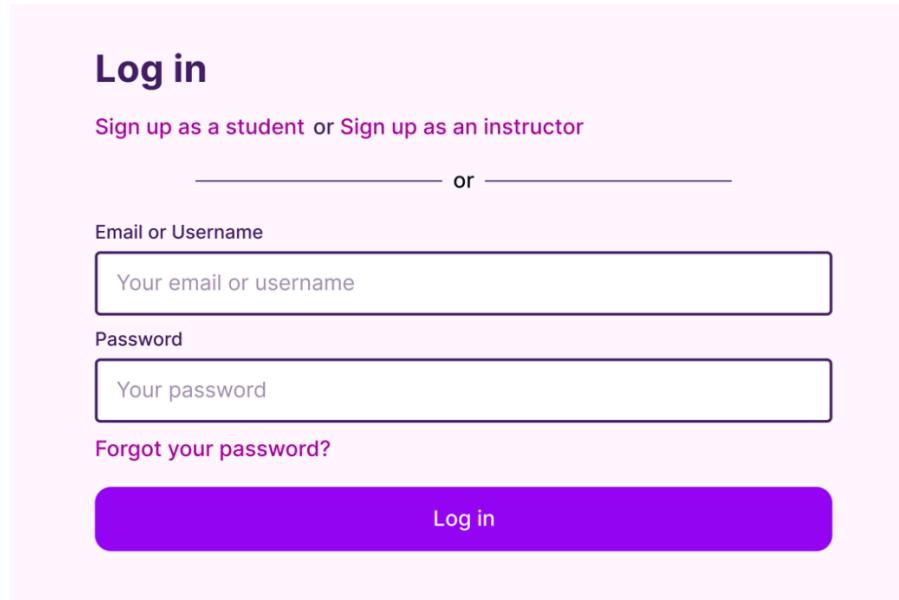
Description: The landing page for every user before login.



Interface Number: 2

Interface Name: Login Page

Description: Login page for all the platform users.

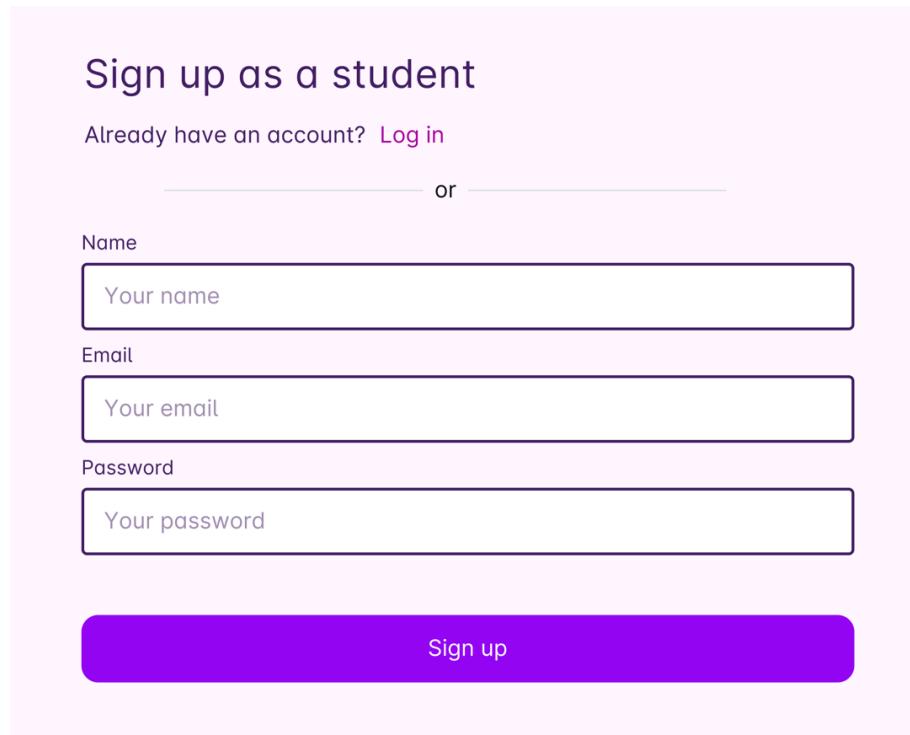


The image shows a login page with a light blue header and footer. The main content area has a white background. At the top left is a large purple "Log in" button. Below it is a purple link "Sign up as a student" or "Sign up as an instructor". A horizontal line with the word "or" in the center separates the sign-up links from the login fields. There are two input fields: one for "Email or Username" containing placeholder text "Your email or username", and another for "Password" containing placeholder text "Your password". Below the password field is a purple link "Forgot your password?". At the bottom is a large purple "Log in" button.

Interface Number: 3

Interface Name: Student Registration

Description: Registration page for new students to join the platform.



The image shows a student registration page with a light blue header and footer. The main content area has a white background. At the top left is a large purple "Sign up as a student" button. Below it is a purple link "Already have an account? Log in". A horizontal line with the word "or" in the center separates the log-in link from the registration fields. There are three input fields: one for "Name" containing placeholder text "Your name", one for "Email" containing placeholder text "Your email", and one for "Password" containing placeholder text "Your password". At the bottom is a large purple "Sign up" button.

Interface Number: 4

Interface Name: Browse Course

Description: Displays courses based on student preferences and navigation to other pages.

The screenshot shows a user profile for 'Sheroni Asher' at the top left. On the right, there are icons for shopping cart, notifications, and messages. The main title is 'Explore a World of Knowledge: Browse Our Diverse Range of Courses'. Below it, there are search filters: 'I AM SEARCHING FOR COURSES IN Computer Science', 'PRICE 1000 LKR - 5000 LKR', and 'LEVEL Any level'. There are also dropdowns for 'Search by name or keyword' (with placeholder 'Q'), 'Language: English', and 'Sort by: Top Rated'. The main content area displays four course cards:

- Introduction to Programming** by Brinda Fernando, Beginner Level, 4.8 rating, 50 reviews, 30 hours, 4000 LKR. Includes 'Buy Course', 'Add to Cart', and a heart icon.
- Web Development** by Arun Kumar, Intermediate Level, 4.7 rating, 12 reviews, 25 hours, 3500 LKR. Includes 'Buy Course', 'Add to Cart', and a heart icon.
- Computer Networking Basics** by Jennifer Davis, Beginner Level, 4.7 rating, 13 reviews, 20 hours, 2000 LKR. Includes 'Buy Course', 'Add to Cart', and a heart icon.
- Database Management** by Alex Martinez, Beginner Level, 4.6 rating, 15 reviews, 15 hours, 1500 LKR. Includes 'Buy Course', 'Add to Cart', and a heart icon.

A 'Show more' button is at the bottom.

Interface Number: 5

Interface Name: Course Details

Description: Provides in-depth information about a specific course

The screenshot shows the 'Introduction to Programming' course details. It includes:

- Introduction to Programming** by Brinda Fernando
- Total hours: 30 hours
- Certificate of Completion: Available
- Level: Beginner
- Subject: Computer Science
- Language: English
- Rating: 4.8

A 'Buy Course' button is on the right. Below this, a navigation bar has tabs: 'About' (underlined), 'What you'll learn', 'Course Content', 'Instructor', and 'Reviews'.  
  
The 'About the course' section contains:

Dive into programming basics with our "Introduction to Programming" course led by expert tutor Brinda Fernando. From fundamental concepts to hands-on projects, this course covers it all. Learn at your own pace, engage in interactive exercises, and gain a strong foundation in coding.

In this course, you'll start by understanding the core concepts of programming, from variables and loops to object-oriented programming principles. Through interactive lessons and engaging exercises, you'll not only grasp theoretical knowledge but also apply it practically. Get ready to build your first web applications, solve coding challenges, and learn the art of debugging.

Interface Number: 6

Interface Name: Instructor Details

Description: Provides information about the instructor.

**Brinda Fernando**  
Speaks: English, Sinhala  
Total Students: 114  
Total Reviews: 50  
Instructor Rating: 4.6

About Courses (3)

About the tutor

Brinda Fernando is a highly skilled programming expert with a wealth of experience in the tech industry. Holding a Master's degree in Computer Science from a prestigious university, Brinda combines her academic knowledge with over a decade of hands-on experience in software development and teaching. She has worked on innovative projects for renowned tech companies, showcasing her expertise in various programming languages and technologies.

Show more

Interface Number: 7

Interface Name: Payment Checkout

Description: Displays order summary and facilitate payment.

**Brinda Fernando**

Introduction to Programming

Your order

Course Fee LKR 4,000.00  
Processing fee LKR 100.00

Total LKR 4,100.00

Credit/Debit Card

Name on card

1234 1234 1234 1234

MM / YY CVC

Confirm payment

Interface Number: 8

Interface Name: Purchased Courses

Description: Lists all purchased courses.

The screenshot shows a user interface for managing purchased courses. At the top, there are three tabs: 'All courses', 'My sessions', and 'My Wishlist'. Below the tabs are three search/filter options: 'Search by name or keyword' with a magnifying glass icon, 'Course status: In-Progress' with a dropdown arrow, and 'Sort by: Last purchased' with a dropdown arrow. The main content area displays two course cards. The first card is for 'Introduction to Programming' by Brinda Fernando, Beginner Level, 30 hours, with a progress bar at 50% and a 'Resume' button. The second card is for 'Web Development' by Arun Kumar, Intermediate Level, 25 hours, with a progress bar at 0% and an 'Enroll' button. Both cards have a three-dot menu icon in the top right corner.

Interface Number: 9

Interface Name: Course Content

Description: Displays video sessions, quizzes, assignments of specific course.

The screenshot shows a user interface for course content. At the top, there are navigation links: 'Videos', 'Notes', 'Quizzes', 'Assignments', 'Q&A', and 'Book Session'. On the right, there are buttons for 'Get a Certificate' and 'Post a Review'. Below the navigation, there's a section titled 'Course content' with a close button 'X'. This section lists seven video sessions with play icons and duration information: 1. Introduction to programming (4min), 2. Understanding Algorithms (15min), 4. Basics of Data Types and Variable (20min), 5. Control Structures (4min), 6. Conditionals (8min), and 7. Loops (15min). To the right of this list is a large dark purple video player area with a white play button icon. At the bottom left, there's a callout box with a purple border containing the text: 'Need extra help? Book one-on-one sessions with instructor for personalized help with less payment. Click "Book Session" to schedule your session. Master the course with tailored guidance!' with a small info icon.

Interface Number: 10

Interface Name: Quiz Viewer

Description: Displays quizzes with questions, options for student assessment.

Course Topics	X
<input type="checkbox"/> 1. Introduction to programming	
<input type="checkbox"/> 2. Understanding Algorithms	
<input type="checkbox"/> 3. Basics of Data Types and Variable	
<input type="checkbox"/> 4. Control Structures	
<input type="checkbox"/> 6. Conditionals	
<input type="checkbox"/> 7. Loops	

Summary of your previous attempts

Attempt	State	Grade / 5.00

**Attempt quiz**

Interface Number: 11

Interface Name: Assignment Viewer

Description: Displays assignments for the specific course

Course Topics	X
<input checked="" type="checkbox"/> 1. Introduction to programming	
<input type="checkbox"/> 2. Understanding Algorithms	
<input type="checkbox"/> 3. Basics of Data Types and Variable	
<input type="checkbox"/> 4. Control Structures	
<input type="checkbox"/> 5. Conditionals	
<input type="checkbox"/> 6. Loops	

**Instruction**

 Assignment1.docx 2 October 2023, 8:39 AM

**Submission status**

Submission status	No attempt
Grading status	Not graded

**Due date** Saturday, 11 November 2023, 12:00 AM

**Submission comments** ▶ Comments (0)

**Add Submission**

Interface Number: 12

Interface Name: Question and Answer

Description: Students can ask questions related to the course content, and instructors provide answers and clarifications.



 **How do loops and conditionals work, and when should I use them in my code?**

Loops repeat tasks, like processing lists, making code efficient. Conditionals, such as 'if' statements, help make decisions based on specific conditions. Use loops for repetition and conditionals for decision-making in your code

 **AF The course covers HTML and CSS, but what about responsive design**

In this course, we cover the basics of HTML and CSS, focusing on programming fundamentals. While responsive design is important, it's a more advanced topic. For in-depth learning on responsive design, I suggest exploring advanced web development courses after mastering the basics here.

**Ask a new question**



Interface Number: 13

Interface Name: Book Additional Session

Description: Student can schedule extra sessions with instructors for personalized guidance and clarification.

The screenshot shows a weekly session calendar from August 7 to 13, 2023. The days of the week are listed as Mon, Tue, Wed, Thu, Fri, Sat, Sun. Specific times are marked: 16:30, 14:30, 15:00, 17:30, 15:30, 18:00, 16:00, 18:30, 16:30, 19:00, 17:00, and 17:30. A session on Friday at 15:30 is highlighted with a purple border. To the right, session details are provided: Topic 'Basics of Data Types and Variables', Date 'Friday, August 11 at 15:30', and Cost '30-min session LKR 1,500.00' and 'Processing fee LKR 100.00'. The total cost is listed as 'Total LKR 1,600.00'. A 'Book Session' button is located at the bottom right.

Interface Number: 14

Interface Name: Booked Sessions

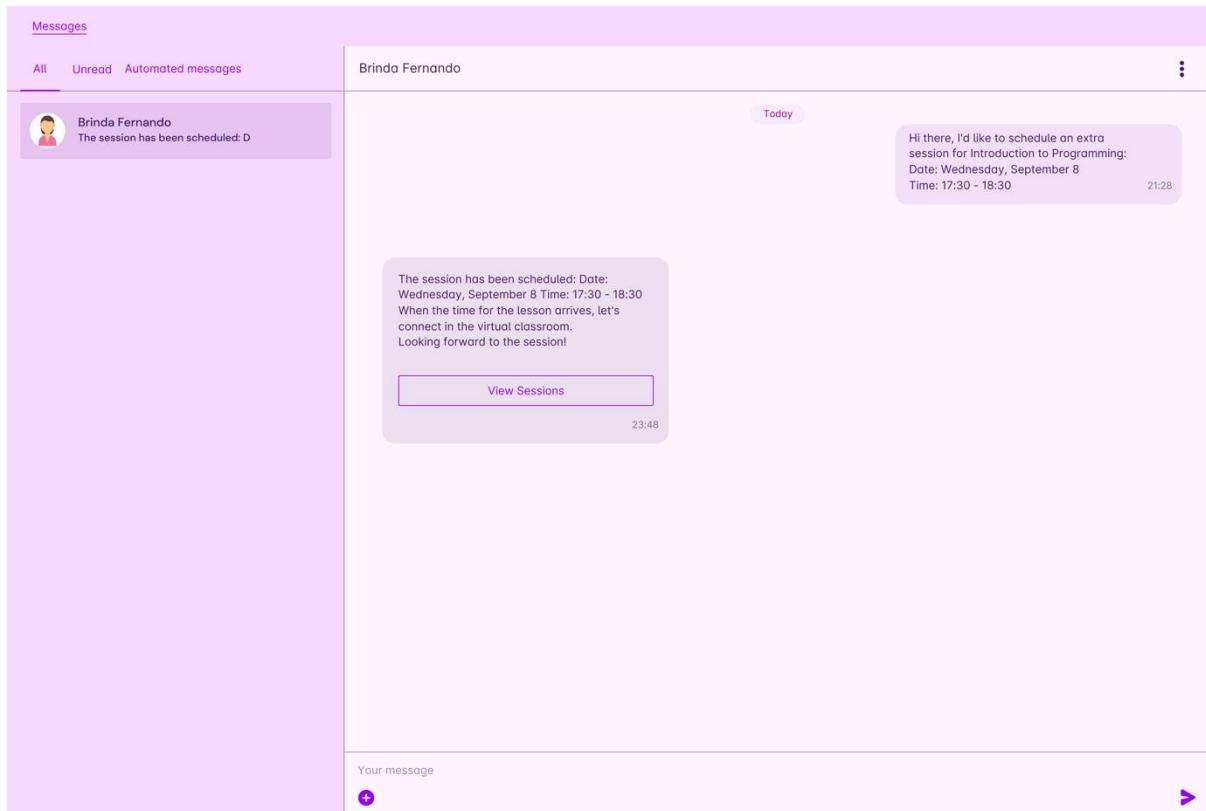
Description: Displays details of scheduled sessions, including date, time, and instructor.

The screenshot shows a list of booked sessions. At the top, there are navigation tabs: 'All courses', 'My sessions' (which is selected), and 'My Wishlist'. Below are search and filter options: 'Search by name or keyword' with a magnifying glass icon, 'Sort by: Upcoming', 'Course: Introduction to Programming', and 'Date: Last 7 days'. The list contains two entries for 'Brinda Fernando': one for Tuesday, September 8, 17:30 - 18:30, and another for Wednesday, September 9, 11:30 - 12:30. Each entry has a three-dot menu icon on the right. A modal window is open over the second entry, containing 'Cancel' and 'Reschedule' buttons.

Interface Number: 15

Interface Name: Message Instructors

Description: Student can send messages and inquiries directly to instructors.



Interface Number: 16

Interface Name: Post Course Review

Description: Students can submit feedback and reviews after completing a course.

**Write a review**

Introduction to Programming - Arun Kumar

---

 **Sheroni Asher**  
Your review is displayed anonymously



Your feedback helps others decide which course to choose

Interface Number: 17

Interface Name: Edit Student Profile

Description: Students can modify personal details, email, and password.

The screenshot shows a user interface for editing student profile information. At the top, there's a navigation bar with a 'Settings' link. Below it, a sidebar on the left lists 'Account', 'Email', and 'Password'. The main content area is titled 'Account Settings'. It features a placeholder 'Profile image' with a purple silhouette icon, and a 'Upload photo' button. Below this, four input fields are displayed: 'First name' (Sheroni), 'Last name' (Asher), 'Date of Birth' (29/7/2004), and 'Phone Number' (+94). At the bottom right of the form is a 'Save changes' button.

Interface Number: 18

Interface Name: Shopping Cart

Description: Displays selected courses for purchase.

The screenshot displays a shopping cart interface. At the top, it says 'Shopping Cart' and indicates '2 items'. Below this, two course items are listed: 'Introduction to Programming' by Brinda Fernando, priced at 4000 LKR, and 'Web Development' by Arun Kumar, priced at 3500 LKR. Both items have a delete 'X' icon. At the bottom, it shows a total of 'Total: 7500 LKR' and a prominent 'Checkout' button.

Interface Number: 19

Interface Name: Payment History

Description: Provides a record of all payment transactions.

Payment History				
Sort by: Newest ▾				
AMOUNT		DESCRIPTION	DATE	
4000	LKR	Course Fee: Web Development	June 11, 9:49 AM	<a href="#">Invoice</a>
600	LKR	Session Fee: Introduction to Programming	May 16, 9:49 AM	<a href="#">Invoice</a>
600	LKR	Session Fee: Introduction to Programming	May 15, 9:49 AM	<a href="#">Invoice</a>
600	LKR	Session Fee: Introduction to Programming	May 14, 9:49 AM	<a href="#">Invoice</a>
3500	LKR	Course Fee: Introduction to Programming	May 13, 8:49 AM	<a href="#">Invoice</a>

Interface Number: 20

Interface Name: Instructor Registration

Description: Registration page for new instructor to join the platform.

About Profile

### About

Begin creating your public tutor profile

First name

Last name

Email

Password

Confirm Password

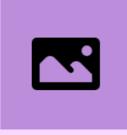
Phone number (optional)

Age  
 I confirm I'm over 18

Next

About Profile

### Profile photo



Upload photo

### Profile Description

1. Introduction

I'm Arjun, a passionate English tutor from Sri Lanka.

2. Teaching Experience

3. Headline

Continue

Complete Registration

Interface Number: 21

Interface Name: Created Courses

Description: Displays list of courses instructors have created.

Courses Quiz Assignments Q&A Reviews

Search by name or keyword  Sort by: Newest

Add Course

**Introduction to Programming** ::

Total Students: 63  
Total Earned: 22100 LKR  
Average Rating: 4.8

Edit

Interface Number: 22

Interface Name: Assignment Submissions

Description: Instructors can view and evaluate student assignments

Course Quiz Assignments Q&A Reviews

Course: Introduction to Programming Sort by: Newest

Sort by: Newest		Topic: Control Structures
	Sheroni Asher	___/100
	Patrick Newman	___/100

**Introduction to Programming**

2 Submissions

Accepting submissions (i)

AssignmentAnswer

Enter assignment comments

Interface Number: 23

Interface Name: Questions

Description: Accesses student queries, allowing instructors to respond.

Course Quiz Assignments Q&A **Reviews**

Course: Introduction to Programming ▾ Sort by: Newest ▾

Search all course questions 

 **How do loops and conditionals work, and when should I use them in my code?**  
Loops repeat tasks, like processing lists, making code efficient. Conditionals, such as 'if' statements, help make decisions based on specific conditions. Use loops for repetition and conditionals for decision-making in your code

 **AP How do programming languages differ from each other, and how do I choose the right one for a specific project?**  
Programming languages vary in syntax, complexity, and purpose. For example, Python is known for its simplicity and readability, making it great for beginners and general-purpose tasks. Java is platform-independent, making it suitable for large-scale applications. Choosing the right language depends on the project requirements, your familiarity with the language, and the specific features needed for the task.

 **AF What is the role of algorithms in programming, and how do I improve my algorithmic problem-solving skills?**  
[Reply](#)

[Write a reply](#) 

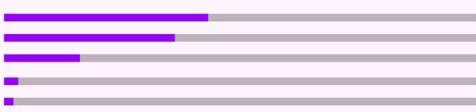
Interface Number: 24

Interface Name: Reviews

Description: Displays student reviews and ratings for courses.

Course Quiz Assignments Q&A **Reviews**

Course: Introduction to Programming ▾ Sort by: 3 stars ▾

**4.4** Course Rating   


★★★	43%
★★★	36%
★★★	16%
★★★	3%
★★★	2%

 **Anonymous**  a month ago  
The course provided a solid foundation in programming concepts. The tutor's guidance was invaluable, making complex topics understandable. I feel confident in my coding abilities now.

---

 **Sheroni Asher**  a month ago  
Easy to learn for beginners and I think this is the complete course for learning programming

Interface Number: 25

Interface Name: Session Requests

Description: Displays requests from students for extra sessions.

This screenshot shows a user interface for managing scheduled sessions. At the top, there are tabs for "My Requests" and "My sessions", with "My sessions" being the active tab. Below the tabs are search and filter options: "Search by name or keyword" with a magnifying glass icon, and a dropdown for "Course: Introduction to Programming".

The main content area displays two scheduled sessions:

- Alex Costa (red profile picture) - Basics of Data Types and Variables, Tuesday, September 8, 17:30 - 18:30. Status: Ongoing.
- Kevin Arthur (blue profile picture) - Control Structures, Wednesday, September 9, 11:30 - 12:30. Status: Upcoming.

Each session card includes a three-dot menu icon on the right.

Interface Number: 26

Interface Name: Scheduled Sessions

Description: Displays scheduled sessions, including date, time, and student details.

This screenshot shows a user interface for viewing a grid of scheduled sessions. At the top, there are tabs for "My Requests" and "My sessions", with "My sessions" being the active tab. Below the tabs are search and filter options: "Search by name or keyword" with a magnifying glass icon, "Sort by: All" with a dropdown arrow, and "Date: Last 7 days" with a dropdown arrow.

The main content area displays seven session cards arranged in two rows:

- Kamal H: Basics of Data Types and Variables (Ongoing, Wednesday, September 8, 17:30 - 18:30). Buttons: End, Join.
- Amitabh B: Basics of Data Types and Variables (Upcoming, Friday, September 10, 17:30 - 18:30). Buttons: Start, Edit.
- Sheroni A: Introduction to programming (Upcoming, Saturday, September 11, 17:30 - 18:30). Buttons: Start, Edit.
- Kamal H: Basics of Data Types and Variables (Upcoming, Wednesday, September 11, 19:30 - 20:30). Buttons: Start, Edit.
- Sheroni A: Introduction to programming (Past, Tuesday, September 6, 17:30 - 18:30). Buttons: None.
- Amitabh B: Basics of Data Types and Variables (Past, Monday, September 5, 17:30 - 18:30). Buttons: None.

Each session card includes a status indicator (green for Ongoing, yellow for Upcoming, red for Past) and a three-dot menu icon on the right.

Interface Number: 27

Interface Name: Create Course

Description: Instructors can create course and set the about, structure and price of course.

## About Course

Begin creating your public course

Course Thumbnail



[Upload photo](#)

Course Title

Subject

Level

Description

[Next](#)

## Course Structure

What will students learn in your course?

Objective 1

Objective 2

Objective 3

Objective 4

[Add another objective](#)

[Next](#)

## Set your course fee



LKR

### Initbe commission



For all the subsequent course purchase,  
Initbe charges a percentage 30% of the  
course fee

Next

Interface Number: 28

Interface Name: Add Course Content

Description: Instructors can add content such as topic, assignments, and quizzes.

The screenshot shows the 'Course Content' interface. At the top, there are four navigation tabs: 'About', 'Course Structure', 'Pricing', and 'Course Content'. Below the tabs, the main area is titled 'Course Content' and contains the following sections:

- Topic 1:** A section for adding a topic, featuring a 'Topic Title' input field and an 'Upload Content' button with a 'X' icon.
- Assignment 1:** A section for adding an assignment, with a 'Video' and 'Notes' icon.
- Quiz 1:** A section for adding a quiz, featuring an 'Add MCQ' button with a 'X' icon.
- Question:** A section for adding a question, with an input field labeled 'Insert the question title'.
- Answer:** A section for adding answers, with two radio buttons labeled '(A)' and '(B)'. Each has an input field labeled 'Insert answer choice'.
- Answer:** Another section for adding answers, with a radio button labeled '(C)' and an input field labeled 'Insert answer choice'.
- Add another answer:** A link to add more answer options.
- + Topic + Quiz + Assignment:** Buttons to add new topics, quizzes, and assignments.

At the bottom right of the main area is a 'Submit for Review' button.

Interface Number: 29

Interface Name: Create Assignments

Description: Instructor can create assignments with specific instructions, questions, and grading criteria for student completion.

The screenshot shows a form titled 'Create Assignment'. It has three main sections: 'Title' (with a text input field containing 'Insert your assignment title'), 'Instruction' (with a text input field containing 'Insert your assignment Instruction'), and 'Attachments' (with a file upload input field). On the right side, there is a 'Due' date selector set to 'Thu, Oct 19, 11:59 PM' and a 'Save' button.

Interface Number: 30

Interface Name: Message Students

Description: Instructors can send messages and announcements to students.

The screenshot shows a 'Messages' interface. On the left, there's a sidebar with 'Messages' and tabs for 'All', 'Unread', and 'Automated messages'. Below that are three message snippets from users: Iliash Hossain, Abu Bin Ishtiyak, and George Philips. The main area shows a conversation with 'Brinda Fernando'. A message from 'Iliash Hossain' is shown with a 'Today' timestamp. A response from 'Brinda Fernando' is shown with a '21:28' timestamp, containing text about scheduling an extra session for Introduction to Programming on Wednesday, September 8, from 17:30 - 18:30. There is a 'Confirm Session' button. At the bottom, there's a text input field for 'Your message' with a blue send icon and a purple recipient icon.

Interface Number: 31

Interface Name: Instructor Profile Edit

Description: Instructor can edit account details

Settings

Account

Email

Password

Profile Description

Availability & Rate

Account Settings

Profile image

First name

Brinda

Last name

Fernando

Phone Number

+94

Active Status

Active

Save changes

Interface Number: 32

Interface Name: Edit Availability

Description: Instructor can manage their availability for additional sessions.

### Availability & Rate

Availability shows your potential working hours.  
Students can book lessons extra sessions between these times.

Monday  
 to

Tuesday  
 to

Wednesday  
 to

Thursday  
 to

Friday  
 to

Saturday  
 to

Sunday  
 to

Rate  
 LKR

Initbe commission

For all the subsequent lessons, Initbe charges a percentage 25% of the hourly rate

Interface Number: 33

Interface Name: Enrolled Students

Description: Displays a list of students currently enrolled in the courses.

Students						
Student		Enrolled Date	Last Visited	Courses Enrolled	Question Asked	Session Attended
AB	Abu Bin Ishtiyak	24/07/2023	24/07/2023	2 courses	0	0
PN	Patrick Newman	24/07/2023	24/07/2023	4 courses	0	0
HK	Howard Kennedy	24/07/2023	24/07/2023	1 courses	0	0
AB	Albert Brown	24/07/2023	24/07/2023	1 courses	0	0
TS	Timothy Silva	24/07/2023	24/07/2023	1 courses	0	0
JC	Janice Cooper	24/07/2023	24/07/2023	2 courses	0	0
EC	Elizabeth Carter	24/07/2023	24/07/2023	2 courses	0	0
LN	Lori Newman	24/07/2023	24/07/2023	2 courses	0	0

Interface Number: 34

Interface Name: Instructor Performance

Description: Display the performance of the instructor.

Performance				
Performance Summary				
Total Students <b>36</b>	Created Course <b>6</b>	Total Sessions <b>100</b>	Total Session Hours <b>54.5</b>	
Instructor Rating <b>4.6</b>	Profile Views <b>466</b>			
<a href="#">Date range</a>	<a href="#">All Courses</a>			

Interface Number: 35

Interface Name: Instructor Earning

Description: Displays the earning of instructor and allows to withdraw.

The screenshot shows the 'Earnings' interface for an instructor. At the top, there's a summary section with four boxes: 'Available Balance LKR 4600', 'Total Earnings LKR 34600', 'Total Course Earnings LKR 24600', and 'Total Session Earnings LKR 10000'. Below this is a 'Withdraw balance' button and three dropdown filters: 'Date range', 'Activity', and 'Course'. A message indicates 'Showing results 1-5 of 5'. A table below lists five transactions:

Date	Activity	Description	From	ID	Amount
10/16/2023	⌚ Earning	Course: Introduction to programming	Sheroni Asher	ERNG000001	2800 LKR
7/23/2023	⌚ Earning	Course: Introduction to programming	Patrick Newman	ERNG000002	2800 LKR
4/10/2023	↓ Withdrawal	Transferred successfully	Payoneer	WDRL000001	-5600 LKR
4/8/2023	⌚ Earning	Course: Introduction to programming	Sheroni Asher	ERNG000003	2800 LKR
4/8/2023	⌚ Earning	Course: Introduction to programming	Sheroni Asher	ERNG000004	2800 LKR

Interface Number: 36

Interface Name: Withdrawal Method

Description: Shows the withdrawal method.

The screenshot shows the 'Withdraw Balance - Select Method' interface. It includes a back link '← Back to Earning', a summary section with 'Available Balance: 4600 LKR', and two buttons for payment methods: 'Bank Transfer' and 'Payoneer'.

← Back to Earning

Withdraw Balance -  
Select Method

Available Balance:  
**4600 LKR**

To begin the withdrawal process, select your preferred payout method.

Bank Transfer

Payoneer

Interface Number: 37

Interface Name: Withdrawal - Bank Transfer

Description: Withdrawal information for bank transfer

### Withdraw Balance - Bank Transfer

Please review your withdrawal and bank details

Bank Name

Commercial Bank

Branch

Borella

Account Number

801341341234

Amount

3200

Available Balance: 4600 LKR

Proceed

Interface Number: 38

Interface Name: Withdrawal - Payoneer

Description: Withdrawal information for payoneer.

### Withdraw Balance - Payoneer

Please review your withdrawal and payoneer details

Account holder name

Arun Kumar

Payoneer Email Address

arunkumar@email.com

Amount

3200

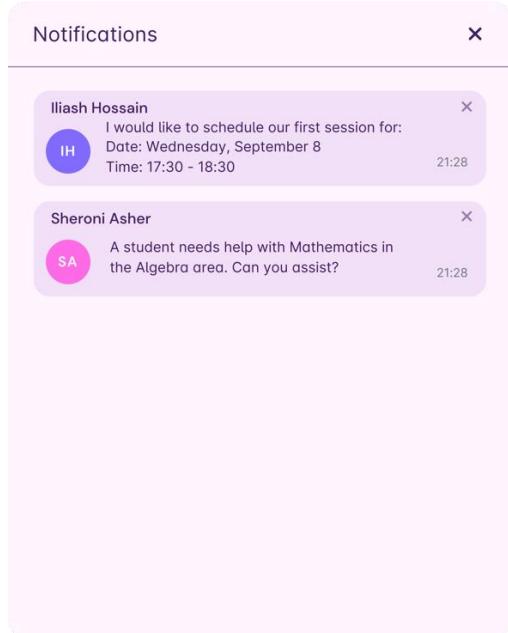
Available Balance: 4600 LKR

Proceed

Interface Number: 39

Interface Name: View Notification

Description: Displays the notifications related to the user.



Interface Number: 40

Interface Name: Contact Customer Support

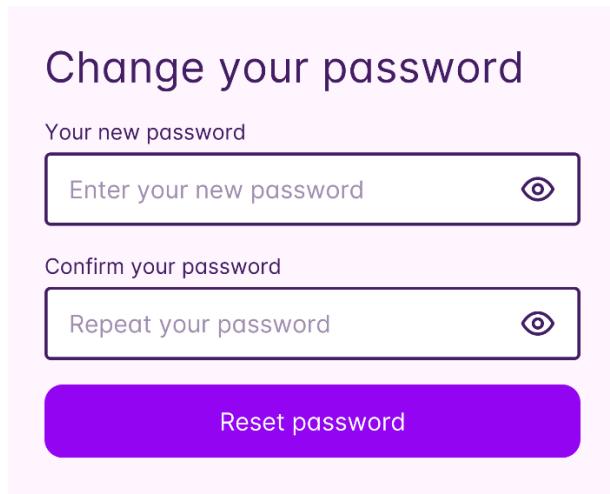
Description: Shows the customer support contact form for assistance and issue resolution.

A screenshot of a contact form titled "Contact Us". At the top left is a blue circular profile picture with the letters "SA". To its right is the title "Need Help?". Below the title is the sub-instruction "Fill in the form with as much detail as you can and we'll get back to you shortly.". The form consists of several input fields: "Name" (text input), "Email" (text input), "From" (dropdown menu set to "Student"), "Reason" (dropdown menu set to "Payment Issue"), "Subject" (text input), "Message" (large text area), "Attachment" (file input field with a plus sign "+"), and a "Send" button at the bottom right.

Interface Number: 41

Interface Name: Reset Password

Description: Shows the reset password form.



The image shows a 'Change your password' form. It has two input fields: 'Your new password' and 'Confirm your password', both with eye icon password helpers. A large purple 'Reset password' button is at the bottom.

Change your password

Your new password

Enter your new password 

Confirm your password

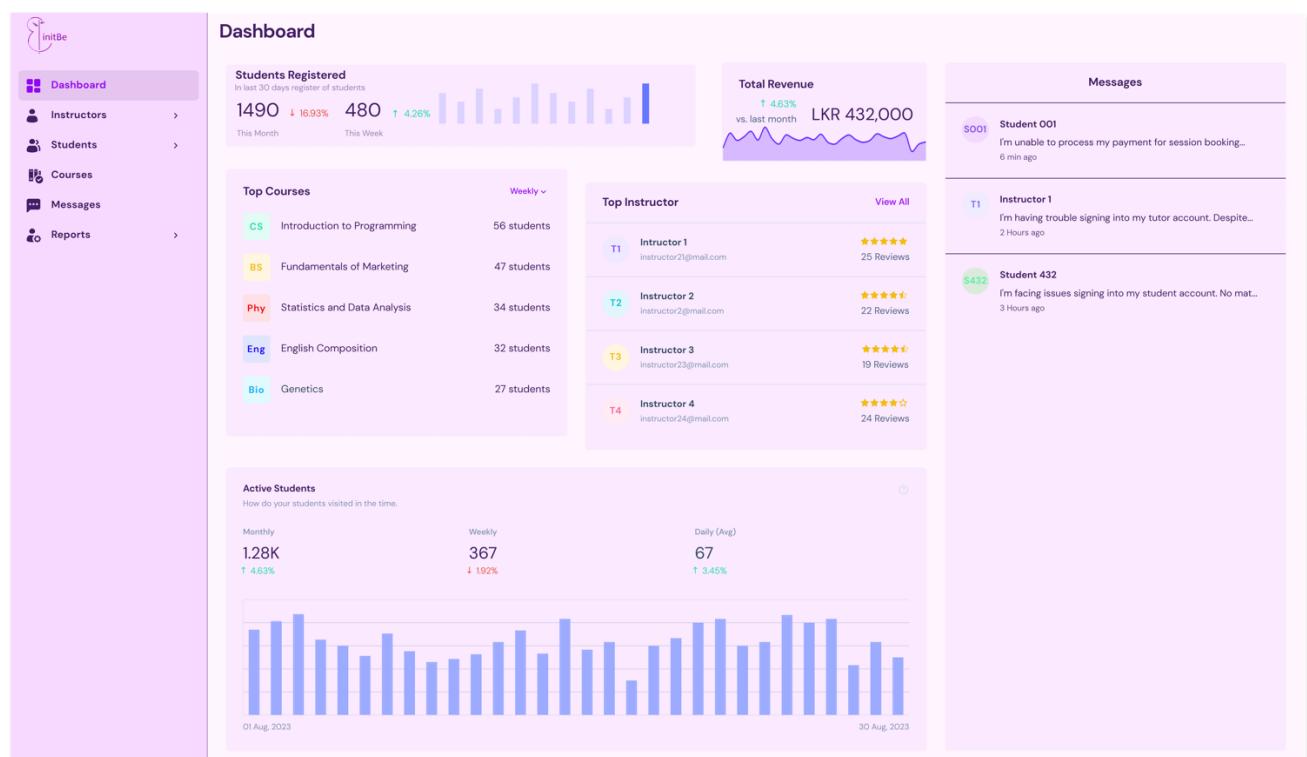
Repeat your password 

Reset password

Interface Number: 42

Interface Name: Admin Dashboard

Description: Shows user activities, course performance, revenue.



Interface Number: 43

Interface Name: Instructors Management

Description: Admins can manage instructor accounts, including verification and monitoring instructor performance.

Instructor						Search by name	Registered Date
User	Earnings	Number of Courses	Registered Date	Status	...		
<input type="checkbox"/>  Brinda Fernando brinda@mail.com	28000 LKR	5	07 Feb 2020	Inactive	...		
<input type="checkbox"/>  Ashley Lawson ashley@mail.com	12000 LKR	2	07 Feb 2020	Active	...		
<input type="checkbox"/>  Arun Kumar larson@mail.com	32000 LKR	6	04 Feb 2020	Active	...		
<input type="checkbox"/>  Jane Montgomery jane84@mail.com	1400 LKR	1	01 Feb 2020	Suspend	...		
<input type="checkbox"/>  Frances Burns frances@mail.com	0 LKR	0	31 Jan 2020	Active	...		
<input type="checkbox"/>  Alan Butler butler@mail.com	0 LKR	0	18 Jan 2020	Inactive	...		
<input type="checkbox"/>  Victoria Lynch victoria@mail.com	5000 LKR	1	15 Jan 2020	Active	...		
<input type="checkbox"/>  Patrick Newman patrick@mail.com	15000 LKR	3	08 Jan 2020	Active	...		
<input type="checkbox"/>  Jane Harris harris@mail.com	22000 LKR	3	02 Jan 2020	Active	...		
<input type="checkbox"/>  Emma Walker walker@mail.com	5500 LKR	2	25 Dec 2019	Active	...		
Prev	1	2	...	6	7	Next	
PAGE	1	OF 102					

Interface Number: 44

Interface Name: Instructor Details

Description: Displays detailed information about a specific instructor

Instructor/ <a href="#">Arun Kumar</a>			
<a href="#">Personal information</a>		<a href="#">Courses</a>	<a href="#">Review</a>
First Name	Arun	Country	Sri Lanka
Last Name	Kumar	Email Address	arunkumar@email.com
Registered Date	08-16-2020	Languages	English, Sinhala, Tamil

Interface Number: 45

Interface Name: Instructor Review

Description: Displays the rating and review posted for course of each instructor

Instructor/[Arun Kumar](#)

Personal information Courses Review **Analytics**

<input type="checkbox"/> Student	Course	Rating	Review	...
<input type="checkbox"/> KA Kevin Arthur info@softnio.com	Introduction to Programming	★★★★★	The tutor was very knowledgeable, worked at a good pace.	<a href="#"></a>
<input type="checkbox"/> VL Victoria Lynch victoria@example.com	Introduction to Programming	★★★★★	I will highly recommend this type of tutor.	<a href="#"></a>
<input type="checkbox"/> PN Patrick Newman patrick@example.com	Introduction to Programming	★★★★★	I look forward to taking more classes from here.	<a href="#"></a>
<input type="checkbox"/> Jane Harris harris@example.com	Introduction to Programming	★★★★★	This was my first time it far exceeded my expectations.	<a href="#"></a>

Interface Number: 46

Interface Name: Instructor Analytics

Description: Provides detailed insights into instructor performance.

Instructor/[Arun Kumar](#)

Personal information Courses Review **Analytics**

Last 30 Days

Total Earning (LKR)	Created Courses	Total Sessions
Weekly <b>5600</b> ↓ 1.92%	6 ↑ 4.63% vs. last week	25 ↑ 4.63% vs. last month
Monthly <b>24600</b> ↑ 4.63%		
Daily (Avg) <b>1200</b> ↑ 3.45%		



Total Students	Total Session Hours
6 ↑ 4.63% vs. last week	12.5 ↑ 4.63% vs. last week

Instructor Rating	Profile Views
5.0 ↑ 9.00% vs. last week	300 ↑ 4.63% vs. last month

Interface Number: 47

Interface Name: Students Management

Description: Admins can manage student accounts

Students					
		Purchased Courses	Registered Date	Status	...
<input type="checkbox"/>	Student				
<input type="checkbox"/>	 Sheroni Asher sheroni@email.com	5	07 Feb 2020	Inactive	...
<input type="checkbox"/>	 Ashley Lawson ashley@email.com	2	07 Feb 2020	Active	...
<input type="checkbox"/>	 Joe Larson larson@example.com	6	04 Feb 2020	Active	...
<input type="checkbox"/>	 Jane Montgomery jane84@mail.com	1	01 Feb 2020	Suspend	...
<input type="checkbox"/>	 Joel Robert joel@example.com	0	31 Jan 2020	Active	...
<input type="checkbox"/>	 Frances Burns frances@example.com	0	18 Jan 2020	Inactive	...
<input type="checkbox"/>	 Abu Bin Ishtiyak info@mail.com	1	15 Jan 2020	Active	...
<input type="checkbox"/>	 Ashley Lawson ashley@mail.com	3	08 Jan 2020	Active	...
<input type="checkbox"/>	 Jane Montgomery jane84@example.com	3	02 Jan 2020	Active	...
<input type="checkbox"/>	 Frances Burns frances@example.com	2	25 Dec 2019	Active	...

Prev | 1 | 2 | ... | 6 | 7 | Next | PAGE | 1 | OF 102 |

Interface Number: 48

Interface Name: Student Details

Description: Displays detailed information about a specific student.

Student/Sheroni Asher			
Personal information	Courses	Edit	
First Name	Sheroni	Country	Sri Lanka
Last Name	Asher	Email Address	sheroni@email.com
Registered Date	07-02-2020	Languages	English, Sinhala

Interface Number: 49

Interface Name: Student Enrolled Courses

Description: Displays a comprehensive list of courses student is enrolled in, including course details and progress status.

The screenshot shows a user profile for 'Sheroni Asher'. Below the profile, there are two course cards. The first card is for 'Introduction to Programming' by Brinda Fernando, Beginner Level, 30 hours, with a progress bar at 50%. The second card is for 'Introduction to Programming' by Arun Kumar, Intermediate Level, 25 hours, with a progress bar at 0%.

Course Title	Instructor	Level	Hours	Progress (%)
Introduction to Programming	Brinda Fernando	Beginner Level	30 hours	50%
Introduction to Programming	Arun Kumar	Intermediate Level	25 hours	0%

Interface Number: 50

Interface Name: Course Approval

Description: Displays a comprehensive list of new course requests for review and to be published.

The screenshot shows a list of course requests. Each request includes a thumbnail, title, instructor, duration, and date. The courses are categorized by subject and requested date.

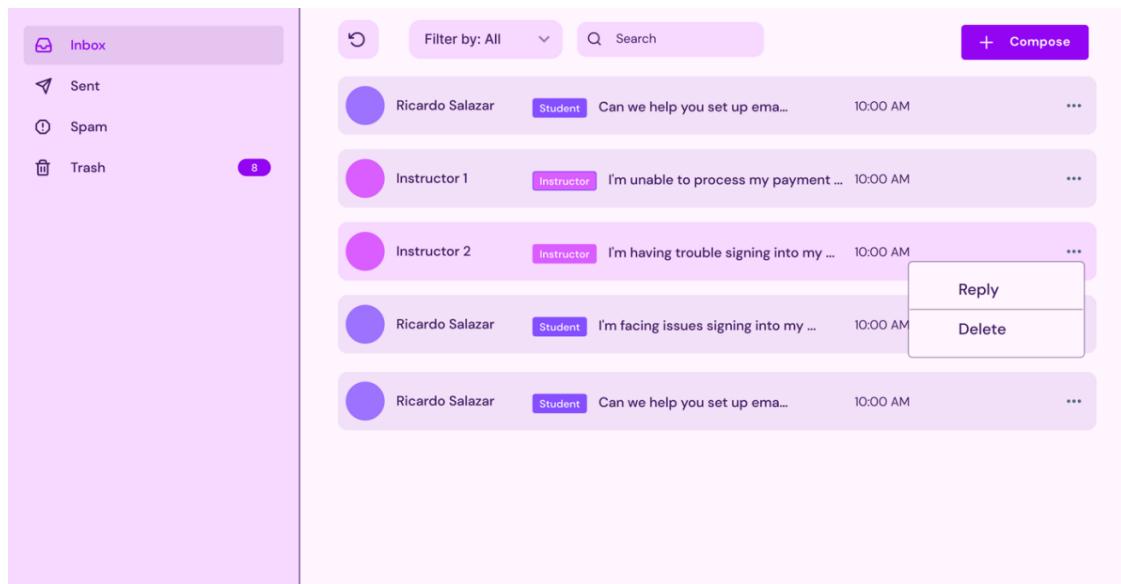
Subject	Requested Date
Calculus and Vectors	07 Feb 2020
Understanding Markets	07 Feb 2020
Advanced Writing Techniques	07 Feb 2020
Cellular Biology	07 Feb 2020
Statistics and Probability	07 Feb 2020
Geometry and Trigonometry	07 Feb 2020

Navigation buttons at the bottom include 'Prev', '1', '2', '...', '6', '7', and 'Next'.

Interface Number: 51

Interface Name: Messages and Support

Description: Administrators can view and respond to messages from students and instructors, providing assistance and support where needed.



Interface Number: 52

Interface Name: Generate Report

Description: Shows the report generation criteria

Generate a report ×

Report Type	Certificate Issuance Report
Course	CRSE000001 - Introduction to Programming
Report Period	Date Range
From Date	16-08-2023
To Date	25-09-2023

Download

### 4.3 Database Design

Table 1: Administrator

Primary Key: adminID

Foreign Key: None

Field Name	Field Type	Field Size	Field Description
adminID	Text	5	Administrator ID
firstName	Text	30	First Name of the Admin
lastName	Text	30	Last Name of the Admin
email	Text	50	Email Address
password	Text	20	Password

Table 2: Student

Primary Key: studentID

Foreign Key: None

Field Name	Field Type	Field Size	Field Description
studentID	Text	10	Student ID
lastName	Text	30	Last Name of Student
firstName	Text	30	First Name of Student
status	Text	20	Status of Student
email	Text	50	Email Address
password	Text	20	Password
phoneNumber	Text	15	Phone Number of Student
dateOfBirth	Date	-	Date of Birth
registrationDate	Date	-	Registration Date

Table 3: Course

Primary Key: courseID

Foreign Keys: adminID, instructorID, certificationID

Field Name	Field Type	Field Size	Field Description
courseID	Text	10	Course ID
level	Text	20	Course Level
subject	Text	20	Course Subject
duration	Number	5	Course Duration in minutes
fee	Number	10	Course Fee
description	Text	255	Course Description
status	Text	20	Status of Course
adminID	Text	10	Administrator ID
instructorID	Text	10	Instructor ID
certificationID	Text	10	CertificateID

Table 4: StudentCourse

Composite Primary Key: (studentID, courseID)

Foreign Keys: studentID, courseID

Field Name	Field Type	Field Size	Field Description
studentID	Text	10	Student ID
courseID	Text	10	Course ID
enrollmentDate	Date		Course Enrollment Date
Progress	Number	3	Progress of course

Table 5: Session

Primary Key: sessionID

Foreign Keys: studentID, courseID, timeSlotID, availabilityID

Field Name	Field Type	Field Size	Field Description
sessionID	Text	10	Session ID
sessionName	Text	30	Name of the Session
date	Date	-	Date of the Session
fee	Number	10	Fee for the Session
status	Text	20	Status of the Session
studentID	Number	10	Student ID
courseID	Text	10	Course ID
timeSlotID	Text	10	Time Slot ID
availabilityID	Text	10	Availability ID

Table 6: Question

Primary Key: questionID

Foreign Key: studentID

Field Name	Field Type	Field Size	Field Description
askedDate	Date		Date when question was asked
questionID	Text	10	Question ID
studentID	Text	10	Student ID

Table 7: TimeSlot

Primary Key: timeSlotID

Foreign Key: None

Field Name	Field Type	Field Size	Field Description
timeSlotID	Text	2	Time Slot ID
startTime	Time		Start time of Session
endTime	Time		End time of Session

Table 8: Assignment

Primary Key: assignmentID

Foreign Key: instructorID, topicID

Field Name	Field Type	Field Size	Field Description
assignmentID	Text	10	Assignment ID
title	Text	50	Title of the Assignment
description	Text		Description of the Assignment
dueDate	Date	-	Due Date of the Assignment
instructorID	Text	10	Instructor ID
topicID	Text	10	Topic ID

Table 9: StudentAssignmentSubmission

Composite Primary Key: (studentID, assignmentID)

Foreign Keys: studentID, assignmentID

Field Name	Field Type	Field Size	Field Description
studentID	Text	10	Student ID
assignmentID	Text	10	AssignmentID
submittedDate	Date	-	Date Assignment Submitted
grade	Number	3	Grade Received for Assignment

Table 10: SessionAvailableTimeSlot

Composite Primary Key: (sessionID, timeSlotID)

Foreign Keys: sessionID, timeSlotID

Field Name	Field Type	Field Size	Field Description
sessionID	Text	10	Session ID
timeSlotID	Text	10	Time Slot
status	Text	20	Status of the time slot

Table 11: Quiz

Primary Key: quizID

Foreign Key: topicID

Field Name	Field Type	Field Size	Field Description
quizID	Text	10	Quiz ID
title	Text	50	Title of the Quiz
duration	Number	2	Duration of the Quiz in minutes
topicID	Number	10	Topic ID

Table 12: StudentQuiz

Composite Primary Key: (studentID, quizID, attemptNo)

Foreign Keys: studentID, quizID

Field Name	Field Type	Field Size	Field Description
studentID	Text	10	Student ID
quizID	Text	10	Quiz ID
attemptNo	Number	2	Attempt Number for the Quiz
grade	Number	3	Grade Received for the Quiz

Table 13: Certificate

Primary Key: certificateID

Foreign Key: None

Field Name	Field Type	Field Size	Field Description
certificationID	Text	10	Primary Key
type	Text	30	Name of the Certificate
description	Text	255	Description of the Certificate

Table 14: StudentCertificate

Primary Key: (studentID, certificationID)

Foreign Keys: studentID, certificateID

Field Name	Field Type	Field Size	Field Description
studentID	Text	10	Student ID
certificationID	Number	10	CertificationID
issueDate	Date	-	Date of Certificate Issuance

Table 15: Payment

Primary Key: paymentID

Foreign Key: studentID

Field Name	Field Type	Field Size	Field Description
paymentID	Text	10	Payment ID
date	Date		Date of Payment
amount	Number	10	Payment Amount
status	Text	20	Payment Status
studentID	Number	10	Student ID

Table 16: Wishlist

Primary Key: wishlistID

Foreign Key: studentID

Field Name	Field Type	Field Size	Field Description
wishlistID	Text	10	Primary Key
createdDate	Date	-	Wishlist created date
studentID	Number	10	Student ID

Table 17: Instructor

Primary Key: instructor

Foreign Key: None

Field Name	Field Type	Field Size	Field Description
instructorID	Text	10	Instructor ID
firstName	Text	30	First Name of Instructor
lastName	Text	30	Last Name of Instructor
email	Text	50	Email Address
password	Text	20	Password
phoneNumber	Text	15	Phone Number of Instructor
status	Text	20	Status of Instructor

Table 18: AvailableTime

Primary Key: availabilityID

Foreign Key: instructorID

<b>Field Name</b>	<b>Field Type</b>	<b>Field Size</b>	<b>Field Description</b>
availabilityID	Text	10	Primary Key
day	Text	20	Day of the week
fromTime	Time		From Time
toTime	Time		To Time
instructorID	Text	10	Instructor ID

Table 19: Earning

Primary Key: earningID

Foreign Key: instructorID

<b>Field Name</b>	<b>Field Type</b>	<b>Field Size</b>	<b>Field Description</b>
earningID	Text	10	Earning ID
date	Date	-	Date of Earning
description	Text	20	Description of Earning
amount	Number	10	Amount of Earning
instructorID	Text	10	Instructor ID

Table 20: Withdrawal

Primary Key: withdrawalID

Foreign Key: instructorID

Field Name	Field Type	Field Size	Field Description
withdrawalID	Text	10	Withdrawal ID
date	Date		Date of Withdrawal Request
withdrawMethod	Text	50	Withdrawal Method
amount	Number	10	Withdrawal Amount
instructorID	Text	10	Instructor ID

Table 21: Invoice

Primary Key: invoiceNo

Foreign Key: paymentID

Field Name	Field Type	Field Size	Field Description
invoiceNo	Text	10	Invoice Number
date	Date		Date of Payment
totalAmount	Number	10	Total amount to be paid
balanceDue	Number	10	Balance due to be paid
paymentID	Text	10	Payment ID

Table 22: Review

Primary Key: reviewID

Foreign Key: studentID, courseID

Field Name	Field Type	Field Size	Field Description
reviewID	Text	10	Review ID
rating	Number	1	Rating for the course
comment	Text	255	Comment about the course
reviewedDate	Date	-	Date when the feedback was given
studentID	Number	10	Student ID
courseID	Text	10	Course ID

Table 23: CoursePayment

Composite Primary Key: (courseID, paymentID)

Foreign Key: courseID, paymentID

Field Name	Field Type	Field Size	Field Description
courseID	Text	10	Course ID
paymentID	Text	10	Payment ID

Table 24: SessionPayment

Composite Primary Key: (sessionID, paymentID)

Foreign Keys: sessionID, paymentID

Field Name	Field Type	Field Size	Field Description
sessionID	Text	10	Session ID
paymentID	Text	10	Payment ID

Table 25: CourseWishlist

Composite Primary Key: (wishlistID, courseID)

Foreign Keys: wishlistID, courseID

Field Name	Field Type	Field Size	Field Description
addedDate	Date	-	Date when the course was added
wishlistID	Text	10	Wishlist ID
courseID	Text	10	Course ID

Table 26: Topic

Primary Key: topicID

Foreign Keys: courseID

Field Name	Field Type	Field Size	Field Description
topicID	Text	10	Topic ID
topicName	Text		Name of the Topic
description	Text	255	Description of the Topic
duration	Number	3	Duration of the Topic in minutes
courseID	Text	10	Course ID

## 4.4 Report Layout Design

Report Layout Number: 1

Report Layout Name: Student Progress Report

Description: Tracks student progress in enrolled courses, detailing assignment and quiz scores along with course status.



Student ID: STUD000001

Student Name: Sheroni Asher

### Enrolled Courses

Course ID	Course Name	Quiz Score (%)	Assignment Score (%)	Sessions	Status
CRSE000001	Introduction to Programming	92	88	5	Completed
CRSE000002	Web Development	78	77	4	On Progress

### Summary Statistics of Student Progress

Total Courses Completed:	1
Total Number of Sessions:	9
Average Score	83.75%
Total Amount Spent:	9600 LKR

Report Generated On: 23/09/2023.

Page 1 of 1

Report Layout Number: 2

Report Layout Name: Student Registration Report

Description: Provides a concise overview of student registration dates, enrolled course counts, and their statuses within a specified time period.



# Student Registration Report

Report Period: September 1, 2023 - September 5, 2023

## Student Registration Details

Student ID	Student Name	Registration Date	Number of Courses Enrolled	Status
STUD000001	John Doe	2023-09-01	2	Active
STUD000002	Jane Smith	2023-09-01	3	Active
STUD000004	Emily Davis	2023-09-01	2	Active
STUD000005	Michael Miller	2023-09-02	3	Active
STUD000006	Sarah Brown	2023-09-02	2	Active
STUD000007	James Wilson	2023-09-02	3	Active
STUD000008	Jessica Moore	2023-09-02	2	Active
STUD000009	William Taylor	2023-09-03	3	Active
STUD000010	Elizabeth Anderson	2023-09-03	2	Active
STUD000011	David Thomas	2023-09-04	1	Active
STUD000012	Jennifer Jackson	2023-09-05	2	Suspend
STUD000013	Richard White	2023-09-05	0	Inactive
STUD000014	Linda Harris	2023-09-05	2	Inactive
STUD000015	Joseph Martin	2023-09-05	3	Inactive

## Summary Statistics of Student Registration

Total Active Students:	11
Total Inactive Students:	3
Total Suspended Students	1
Total Number of Students	15

Report Layout Number: 3

Report Layout Name: Instructor Performance Report

Description: Measure instructor effectiveness with details on created courses, enrollments, additional sessions, course ratings, and earnings.



# Instructor Performance Report

Report Period: June 1, 2023 - August 31, 2023

**Instructor ID:** INSTR00001

**Instructor Name:** Arun Kumar

## Courses Details

Course Name	Enrollments	Sessions	Average Rating	Total Earnings (LKR)
Introduction to Python	18	5	4.7	65000
Data Structures and Algorithms	12	3	4.6	52000
Web Development	25	4	4.8	48000
Machine Learning Basics	15	6	4.9	35000
Cybersecurity Essentials	18	2	4.7	23000
Mobile App Development	20	5	4.5	27000

## Summary Statistics of Instructor Performance

Total Courses Created:	6
Total Student Enrollment:	108
Total Sessions:	25
Total Tutoring Hours:	12.5 hours
Total Earning:	250000 LKR
Instructor Rating:	5.0
Profile views:	300

Report Layout Number: 4

Report Layout Name: Instructor Activity Report

Description: Provide a comprehensive overview of a specific instructor's financial transactions, detailing earnings and withdrawals.



# Instructor Activity Report

Report Period: June 1, 2023 - June 31, 2023

**Instructor ID:** INSTR00001

**Instructor Name:** Brinda Fernando

## Activity Details

Date	Activity	Description	From	Amount (LKR)
2023-06-01	Earning	Course: Introduction to programming	Sheroni Asher	2800
2023-06-05	Earning	Course: Introduction to programming	Patrick Newman	2800
2023-06-09	Withdrawal	Transferred successfully	Payoneer	- 5600
2023-06-16	Earning	Course: Introduction to programming	Sheroni Asher	2800
2023-06-21	Earning	Course: Introduction to programming	Sheroni Asher	2800

## Summary Statistics of Activity

**Total Earning:** 11200 LKR

**Total Withdrawal:** 5600 LKR

Report Generated On: 23/09/2023.

Page 1 of 1

Report Layout Number: 5

Report Layout Name: Course Performance Report

Description: Evaluate course effectiveness through a detailed performance analysis: enrollment, completion rates, and student feedback.



# Course Performance Report

Report Period: January 1, 2023 - June 31, 2023

Course ID: CRSE000001

Course Name: Introduction to Programming

## Statistics of Course

Total Enrollments:	54
Total Sessions:	24
Course Completion Rate:	4 days
Average Rating:	4.8

## Student Reviews

StudentID	Reviewed Date	Rating	Comments
STUD000001	2023-01-25	4	Great introduction to coding. Enjoyed the interactive examples!
STUD000002	2023-02-10	5	The course structure is fantastic and it made learning programming fun.
STUD000003	2023-02-28	3	Some concepts were a bit challenging but the exercises were helpful.
STUD000004	2023-03-15	5	I had no prior programming experience but this course was easy to follow.
STUD000005	2023-04-20	4	Informative and well-paced. Practical exercises made a big difference.
STUD000006	2023-05-05	5	Excellent content! I feel more confident in my programming skills now.

Report Layout Number: 6

Report Layout Name: Certificate Issuance Report

Description: Provide a overview of certificates received by students for a specific course, including issue dates.



# Certification Issuance Report

Report Period: October 1, 2023 - October 31, 2023

Course ID: CRSE00001

Course Name: Introduction to Programming

## Certification Details

Student ID	Student Name	Issue Date
STUD00001	John Doe	2023-10-01
STUD00002	Jane Smith	2023-10-02
STUD00004	Emily Davis	2023-10-04
STUD00005	Michael Miller	2023-10-05
STUD00006	Sarah Brown	2023-10-06
STUD00007	James Wilson	2023-10-07
STUD00008	Jessica Moore	2023-10-03
STUD00009	William Taylor	2023-10-09
STUD00010	Elizabeth Anderson	2023-10-10
STUD00011	David Thomas	2023-10-11
STUD00012	Jennifer Jackson	2023-10-12
STUD00013	Richard White	2023-10-13
STUD00014	Linda Harris	2023-10-14
STUD00015	Joseph Martin	2023-10-15

## Summary Statistics of Certifications

Total Certifications Issued: 15

Average Time to Certification: 4 days

Report Layout Number: 7

Report Layout Name: Course Income Report

Description: Present a comprehensive view of course income: enrollment fees and additional session bookings.



# Income Report

Report Period: July 1, 2023 - July 31, 2023

## Course Fee Income

Course ID	Course Name	Enrollments	Course Fee (LKR)	Total Course Fee (LKR)
CRSE000001	Introduction to Programming	25	4000	100000
CRSE000002	Computer Networking Basics	11	2000	23000
CRSE000003	Web Development	20	3500	70000
CRSE000004	Digital Marketing Strategies	15	1500	22500
CRSE000005	Database Management	5	1500	7500
CRSE000006	Business Analytics for Beginners	18	2400	43200
CRSE000007	Mobile App Development	10	5500	55000
CRSE000008	Basic Photography	6	2500	15000

## Sessions Income

Course ID	Course Name	Sessions	Price Per Session (LKR)	Total Session Income (LKR)
CRSE000001	Introduction to Programming	15	500	7500
CRSE000002	Computer Networking Basics	5	600	3000
CRSE000003	Web Development	12	300	3600
CRSE000004	Digital Marketing Strategies	8	750	6000
CRSE000005	Database Management	2	400	800
CRSE000006	Business Analytics for Beginners	10	500	5000
CRSE000007	Mobile App Development	4	350	1400
CRSE000008	Basic Photography	2	650	1300

## Summary Statistics of Income

Total Course Fee Income:	336200
Total Sessions Income:	28600
Total Income:	364800

Report Layout Number: 8

Report Layout Name: Instructor Payment Report

Description: Present a comprehensive view of instructor payments: course enrollments and earnings from student sessions.



# Instructor Payment Report

Report Period: August 1, 2023 - August 31, 2023

## Course Payments

Instructor ID	Name	Number of Courses	Payment Method	Course Payment (LKR)
INSTR00001	Brinda Fernando	2	Bank Transfer	50000
INSTR00002	Emily Johnson	3	Payoneer	48000
INSTR00003	Michael Davis	1	Bank Transfer	52000
INSTR00004	Sarah Brown	2	Payoneer	55000
INSTR00005	David Lee	1	Bank Transfer	49000
INSTR00006	Laura Wilson	2	Payoneer	51000
INSTR00007	Brian Taylor	1	Bank Transfer	48000
INSTR00008	Jessica Evans	2	Payoneer	53000

## Session Payments

Instructor ID	Name	Number of Sessions	Payment Method	Session Payment (LKR)
INSTR00001	Brinda Fernando	10	Bank Transfer	10000
INSTR00002	Emily Johnson	4	Payoneer	8000
INSTR00003	Michael Davis	13	Bank Transfer	12000
INSTR00004	Sarah Brown	9	Payoneer	11000
INSTR00005	David Lee	4	Bank Transfer	9000
INSTR00006	Laura Wilson	8	Payoneer	9500
INSTR00007	Brian Taylor	8	Bank Transfer	8500
INSTR00008	Jessica Evans	6	Payoneer	10000

## Summary Statistics of Instructor

Total Course Payment: 426000

Total Sessions Payment: 77500

Total Payment:

## **Chapter 5: Conclusion**

In conclusion, the proposed web application for Initbe Holdings addresses existing limitations in educational services through a systematic approach, incorporating stakeholder input, Agile methodologies, and advanced software tools. This platform, featuring secure payments, personalized tutor selection, and real-time communication, aligns with Initbe's commitment to enhancing academic success. Visual representations, including use case, class, sequence diagrams, and an Entity-Relationship diagram, effectively illustrate the transition from the current system to the proposed solution, aiding stakeholder understanding. The detailed implementation plan, covering requirement analysis, design, development, testing, and deployment, reflects Initbe's focus on streamlining operations, ensuring a cohesive online learning platform. Emphasis on security and user acceptance testing underscores commitment to data security and user satisfaction. In essence, the proposed web application showcases Initbe's dedication to innovation, offering a promising solution to current challenges, creating a conducive environment for successful and personalized learning journeys.

## **References**

1. <https://youtu.be/C9QERjIDAiw?si=HdpfDEJfwESOIjW2>
2. <https://www.geeksforgeeks.org/unified-modeling-language-uml-introduction/>
3. <https://www.geeksforgeeks.org/introduction-of-er-model/>
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5. <https://youtu.be/fUNXjRX4z4E?si=Wgd52ZEHNLeAkTpJ>
6. <https://youtu.be/kbZejnPXYLM?si=K75LDyZzVr1ugSkA>
7. <https://youtu.be/9FPU9gscyGA?si=B3TItESAR53vdc8H>

## Appendices

Letter Issued by the organization



May 29, 2023

### Greetings!

#### **Approval for University Students to Develop a System for Our Company**

Dear Sir,

I am pleased to inform you that we grant approval for university students from NIBM to develop a system for our company. We appreciate their interest and willingness to contribute their skills and knowledge to address our business needs.

We recognize the value of collaborating with academic institutions and providing students with real-world project experiences. We believe that their fresh perspectives and innovative ideas will bring significant benefits to our company.

Furthermore, we are dedicated to ensuring the confidentiality and security of our company's information. Therefore, we respectfully request that the university administration or engaged students ensure that they do not divulge any confidential or sensitive information they may come across in the course of their work.

In granting approval, we understand that the students will be working under the guidance of their faculty members, ensuring their work aligns with academic requirements and industry standards. We also commit to providing the necessary support and resources to facilitate their development process.

Should you require any additional information or have any questions, please do not hesitate to contact me at [initbeholdings@gmail.com](mailto:initbeholdings@gmail.com) or +9475 2821480.

### Regards

Ms. H.E Pavithra Mayuri

Head of IT

Initbe Holdings (PVT) Ltd

Log Sheet

Meeting Date	Students Indices (participated)	Supervisor Comments	Signature of the supervisor
12th July 2023	19, 24, 58	Should redraw the use case case have a good idea about the system	Gyan
24th July 2023	2, 24, 19	should edit use case to start class d.	Gan
28th July 2023	2, 24, 19, 58	Use case needs a few changes	Gan
1st Aug 2023	2, 24, 19, 58	Make changes in Class diagram	Gan
22nd Sep 2023	2, 24, 19, 58	Correct the ER	Gan
06th Oct 2023	2, 24, 19, 58	Correct the reports	Gan
30th Nov 2023	2, 24, 19, 58	Correct the class & ER	Gan
14th Nov 2023	2, 24	Correct the ER	Gan
15th Nov 2023	2, 24	Make changes in the ER - (Availability Entity)	Gan