GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

FINAL YEAR PROJECT-I

LEARN CODE PRO

GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

SUPERVISOR

Dr. Erum Mehmood

SUBMITTED BY:

Sidra Yasmeen (BSCS VII SEM) **2020-RBL-232 | 2020-053680**

Sadia Anjum (BSCS VII SEM) **2020-RBL-213 | 2020-053654**

SESSION: **2020-2024**
PROJECT ID: **19-RBL-BSCS09**

GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

Bachelor of Science in Computer Science

FINAL YEAR PROJECT REPORT-I

"LEARN CODE PRO"

A project presented to

Punjab University, College of Information & Technology,

Lahore

In partial fulfillment of the requirement for the degree of

Bachelor of Science in Computer Science

Session (2020-2024)

By:

Sidra Yasmeen (BSCS VII SEM) **2020-RBL-232 | 2020-053680**

Sadia Anjum (BSCS VII SEM) **2020-RBL-213 | 2020-053654**

GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

DECLARATION

The work reported in this project is completed by **Sadia Anjum (Roll No. 053654)** and **Sidra Yasmeen (Roll No. 053680)**, under the supervision of **Dr. Erum Mehmood**, Lecturer in Computer Science, GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE. We hereby declare that we want to make it clear that we didn't copy any part of this software from anywhere else. We created this software and the report entirely on our own. If it's found that any part of this project is copied from somewhere else, we'll take responsibility for it. We haven't used any of this work in any other degree application at any university or institute.

Student Name	**Registration No**	**Roll no**	**Signature**
Sidra Yasmeen (BSCS VII SEM)	**2020-RBL-232**	**053680**	**_____**
Sadia Anjum (BSCS VII SEM)	**2020-RBL-213**	**053654**	**_____**

GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

STATEMENT OF SUBMISSION

This is to certify that following students have successfully completed the final project named as:
Learn Code Pro at GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE
to fulfill the partial requirement of the degree of Bachelor of Computer Science.

Serial no	Registration No	Roll No.	Student Name
1	2020-RBL-232	053680	Sidra Yasmeen (BSCS VII SEM)
2	2020-RBL-213	053654	Sadia Anjum (BSCS VII SEM)

Head of Department
Mrs. Kiran Shehla
Associate Professor of Computer Science
GOVT. RABIA BASRI GRADUATE
COLLEGE FOR WOMEN
WALTON ROAD, LAHORE

Supervisor
Dr. Erum Mehmood
Lecturer in Computer Science
GOVT. RABIA BASRI GRADUATE
COLLEGE FOR WOMEN
WALTON ROAD, LAHORE

Project Coordinator

Dr. Erum Mehmood
Lecturer in Computer Science
GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMAN, Walton Road Lahore

GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

PROOFREADING CERTIFICATE

It is certified that this document does not contain any spelling, punctuation, or grammatical mistakes. This document is well organized, and this document meets the defined objectives.

Student Name	Registration No	Roll no	Signature
Sidra Yasmeen (BSCS VII SEM)	**2020-RBL-232**	**053680**	_____
Sadia Anjum (BSCS VII SEM)	**2020-RBL-213**	**053654**	_____

LEARN CODE PRO

ACKNOWLEDGEMENTS

All praise is to Almighty Allah who bestowed upon us a minute portion of His boundless knowledge by which we were able to accomplish this challenging task. We are greatly indebted to our project supervisor “Dr. Erum Mehmood” Without his supervision, advice and valuable guidance, completion of this project would have been doubtful. We are deeply indebted to him for their encouragement and continual help during this work.
Moreover, we are also thankful to our parents and family who have been a constant source of encouragement for us and brought us the values of honesty & hard work.

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GOVT. RABIA BASRI GRADUATE COLLEGE FOR WOMEN, WALTON ROAD, LAHORE

CERTIFICATE OF APPROVAL

It is to certify that the final year project of BS (CS) "**Learn Code Pro**" was developed under the Supervision of "**Dr. Erum Mehmood**" by:

Student Name	Registration No	Roll no
Sidra Yasmeen (BSCS VII SEM)	**2020-RBL-232**	**053680**
Sadia Anjum (BSCS VII SEM)	**2020-RBL-213**	**053654**

It is fully adequate, in scope and quality for the degree of Bachelor of Science in Computer Science.

_____

Supervisor
Dr. Erum Mehmood
Lecturer in Computer Science
GOVT. RABIA BASRI GRADUATE
COLLEGE FOR WOMEN,
WALTON ROAD, LAHORE

DATED: _____

Head of Department
Mrs. Kiran Shehla
Associate professor of Computer Science
GOVT. RABIA BASRI GRADUATE
COLLEGE FOR WOMEN,
WALTON ROAD, LAHORE

DATED: _____

ABSTRACT

Learn Code Pro is a comprehensive online platform offering a wide range of programming courses from basic to advanced levels. It provides learners with industry-competitive materials, including programming challenges, exercises, and quizzes. The platform supports self-paced learning, allowing students to progress at their own speed. Upon course completion, learners receive a certificate, validating their newly acquired skills. Learn Code Pro aims to empower beginners, intermediate, and advanced learners with flexible, high-quality education tailored to meet the dynamic demands of the tech industry.

Table of Content

1. INTRODUCTION

1.1 Brief Intro

Learn Code Pro is a cutting-edge educational platform designed to transform the learning experience for programming experts. By offering a wide range of programming language courses, this platform caters to learners of all levels, from novice coders to experienced developers. Learn Code Pro provides industry-competitive learning materials, including programming challenges, exercises, and quizzes, ensuring a comprehensive and engaging educational journey.
Upon registering, learners can select from an extensive catalog of programming languages, such as Python, JavaScript, Java, C++, and many more. Additionally, learners receive completion certificates to validate their acquired skills. The primary goal of Learn Code Pro is to empower individuals by providing a flexible, high-quality programming education that meets industry standards, helping them advance in their tech careers.

1.1.1 Objectives

- Democratize access to programming education for all skill levels.
- Provide interactive learning materials including exercises, and quizzes.
- Ensure relevance through real-world projects and practical exercises.
- Empower individuals to succeed in the tech industry with confidence.

1.2 Project Background

Learn Code Pro was conceived to address the growing demand for accessible, high-quality programming education in the rapidly evolving tech industry. Traditional learning methods often fail to keep pace with industry needs, leaving a gap in practical, up-to-date skill acquisition. Learn Code Pro aims to bridge this gap by offering a comprehensive online platform that provides flexible, self-paced courses on a wide range of programming languages. By integrating industry-competitive learning materials, such as programming challenges, exercises, and quizzes, Learn Code Pro ensures learners can acquire the necessary skills to thrive in their careers. The platform's goal is to democratize programming education, making it accessible to learners of all levels, from beginners to advanced developers.

1.2.1 Level of Access:

Our system has three levels of access:

1. Admin
2. Student
3. Visitor

1.3 Literature Review

The development of Learn Code Pro is grounded in the growing body of research that underscores the importance of accessible and flexible learning in the digital age. Studies have shown that traditional classroom settings often fail to keep up with the fast-paced changes in technology and industry demands. Online learning platforms have emerged as effective alternatives, offering flexibility and a wide range of resources.
Research indicates that self-paced learning helps students understand and retain information better because they can learn at their own speed. Additionally, incorporating various types of learning material such as interactive challenges, and quizzes enhances engagement and comprehension.

Previous platforms have shown success in using these methods, but many lack comprehensive, industry-relevant content. Learn Code Pro aims to fill this gap by providing high-quality, up-to-date programming courses that meet professional standards. By offering a diverse selection of programming languages and issuing certificates upon course

completion, Learn Code Pro seeks to empower learners and equip them with practical skills that are directly applicable in the tech industry.

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WERTZ, H. (1986). *AUTOMATIC CORRECTION AND IMPROVEMENT OF PROGRAMS.* NEW YORK: ELLIS HARWOOD; HALSTED PRESS.

SARSA, S. (AUGUST 2022). AUTOMATIC GENERATION OF PROGRAMMING EXERCISES AND CODE EXPLANATIONS USING LARGE LANGUAGE MODELS. AWM DIGITAL LIBRARY , PAGES 27 - 43.

1.4 Analysis of Literature Review

The analysis we concluded from the above-mentioned literature review is as:

- Multimedia Learning Materials
- Industry Relevance
- Educational Gaps Addressed

1.5 Risk List

- Time constraint
- Unavailability of resources
- Lack of expertise
- Risk due to complexity of the project
- Too much Traffic on the website can affect the working
- There may be technological compatibility issues

1.6 Methodology and Software life Cycle of the project

Agile software methodology is a set of repetitive and incremental process models. It is most flexible and easily maneuverable for skittish requirement specifications environments. Unlike other process models where high formality is required and the specifications are expected to be known and verified before the commencement of design, agile models allow the use of increments or possible prototypes that can evolve into more suited and validated requirements and eventually software application. Pressman t (2004) defines it as a development pattern that encourages customer satisfaction and early incremental delivery of operational software; small, highly motivated project teams; informal methods; minimal software engineering work products; and overall development simplicity.

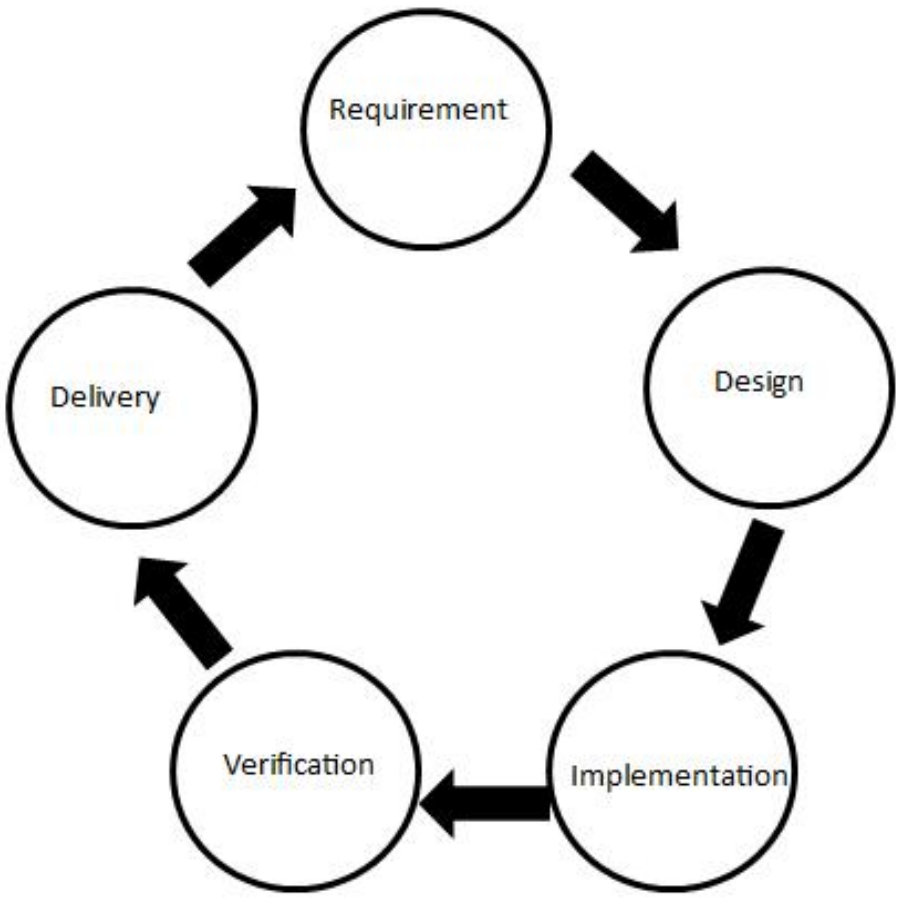
1.6.1 SCRUM Process Model

There are several evolving agile process models for different design scenarios, which are considered flexible, incremental, and repetitive in approach. For this project, we would be using SCRUM Agile process model because it supports object-oriented software design.

An Agile process model follows these activities:
• Requirements
• Analysis
• Design
• Evolution
• Delivery
Pressman (2004) noted that Agile process models are not completely independent of the traditional process models; in fact, most Agile models are flexible derivations or variations of the traditional approach.

1.7 Rationale Behind Selected Methodology

In this section, we use the life cycle model employed broadly at Microsoft. This model is a combination of iterative and waterfall life cycle models. In this model, there are five phases whose boundaries define a sequential set of milestones for the project. The phases, in order of execution, are as follows:
• **Requirements**: To make a user-friendly website that can provide authentic information about all mobile phones to consumers. Customers can buy mobile phones online and can make online transactions.
• **Design**: Based on the functional requirements, physical design specifications are created, and prototyping is conducted to verify design ideas and investigate the capabilities.
• **Implementation**: Using the design and functional specifications, the coding is done.
• **Verification**: This is the process of testing the product to verify that it is performed according to the specifications.
• **Deliver**: After the product has been fully verified, it is packed and prepared for delivery to Customers



2. PROBLEM DEFINATION

2.1 Problem Statement

In today's fast-changing world of technology and education, there's a big gap between traditional learning methods and the need for accessible, high-quality programming education. Many schools and online platforms struggle to keep up with the latest advancements, resulting in outdated content that doesn't prepare learners well for real-world programming in languages like Python, C#, and JavaScript etc. Existing platforms often lack courses that are practical and relevant to industry needs, and they don't offer personalized learning experiences that cater to different learning styles around the world.

Traditional classrooms also have trouble accommodating flexible schedules and self-paced learning, which are crucial for learners at all levels, from beginners to experienced developers who want to deepen their skills. Learn Code Pro aims to solve these problems by offering a strong online learning platform that's easy to access and aligns closely with industry needs. We provide a variety of courses, interactive materials, personalized learning paths, and certifications to help learners worldwide gain practical programming skills. Through innovation, partnerships, and a commitment to quality, Learn Code Pro aims to bridge the gap between theory and real-world application, empowering a global community of skilled tech professionals who can lead innovation and drive digital transformation.

2.2 Deliverable and Development Requirements

Below we mention some of the major hardware/software tools and technologies which will be used in the implementation of the project.

2.2.1 Development Required Tools

a) Design Tool(s):

- MS Word
- draw.io

b) Development Tools:

- Visual Code Studio

2.2.2 Languages & Frameworks

- HTML
- CSS
- JavaScript
- MySQL
- Node .JS

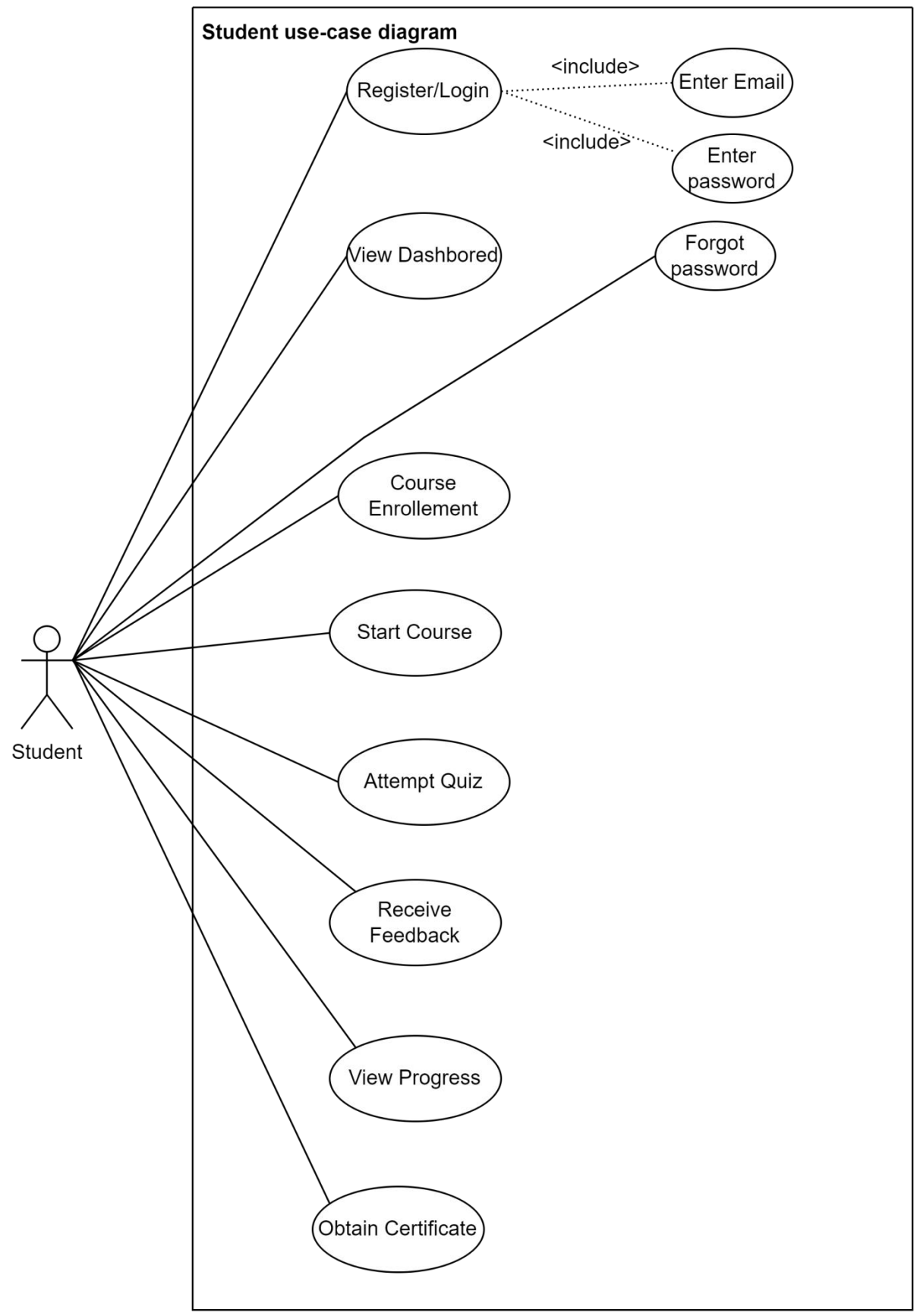
2.3 Current System

The current system of programming education includes both traditional institutions and online platforms. Traditional education relies on fixed courses delivered in classrooms, focusing heavily on theoretical concepts with limited flexibility for self-paced learning or real-world application of programming skills. In contrast, online platforms offer a broader range of programming courses accessible globally, with features like self-paced learning and interactive tools such as videos and coding challenges. However, online platforms vary in quality and may struggle with issues like technical disruptions and inconsistent credentialing. Overall, traditional education provides structured learning but may lag in adapting to rapid technological changes, while online platforms offer flexibility but face challenges in ensuring consistent quality and personalized learning experiences. Both systems aim to prepare learners for programming careers, but there is a recognized need for improvements in relevance, practical application, and scalability to meet the diverse needs of modern learners effectively.

3. REQUIREMENT ANALYSIS

Requirement analysis involves defining, analyzing, validating, and aligning stakeholders' expectations for new projects while considering all possible conflicts.

3.1 Student Use Case Diagram



STUDENT USE-CASE DESCRIPTION

3.1.1 REGISTER/LOGIN

Use case No:	UC-1
Use case Name:	Register /Login
Description:	Student creates an account or login to access the Learn Code Pro platform.
Priority:	High
Actor:	student
Precondition:	The student accesses the Learn Code Pro platform.
Postcondition:	The student is authenticated and logged into the system.
Basic flow:	• The student navigates to the register or login page. • The student enters their email or password. • The student clicks the "Login" or "Register" button. • The system verifies the credentials (for login) or creates a new account for registration.
Exceptional flow:	If the student enters incorrect credentials: • The system displays an error message. • The student is prompted to re-enter their credentials.
Post condition:	The dashboard page will appear.
Business rule:	Students must provide a valid email address.

3.1.2 VIEW DASHBOARD

Use case No:	UC-2
Use case Name:	View Dashboard
Description:	The student to view an overview and detail of all courses.
Priority:	High
Actor:	Student
Precondition:	The student logged into the system.
Post condition:	The student sees the details of courses.
Basic flow:	• The student logs into the system. • The student navigates to the dashboard. • The system displays details of courses.
Exceptional flow:	If there is a system error retrieving the dashboard data: • The system displays an error message. • The student can retry.
Business rule:	None

3.1.3 COURSES ENROLLMENT

Use case No:	UC-3
Use case Name:	Courses Enrollment
Description:	Students enroll in one or more courses and get course content.
Priority:	High
Actor:	Student
Precondition:	The student must be registered onto the website.
Post condition:	The student is successfully enrolled in the selected courses.
Basic flow:	• The student logs into website • The student navigates to the course enrollment section. • The student selects the courses they wish to enroll in. • The system registers the student in the selected courses • The system notifies the student of successful enrollment.
Exceptional flow:	If there is a system error during enrollment, the system displays an error message and advises the student to try again later or contact support
Business rule:	Students can enroll in courses only during the designated enrollment periods

3.1.4 START COURSE

Use case No:	UC-4
Use case Name:	Start Course
Description:	The student starts a course and views the modules included in the course along with the detailed content.
Priority:	High
Actor:	Student
Precondition:	Student log into the system and has access to the dashboard.
Post condition:	Students access the course content.
Basic flow:	• The student navigates to the course section from the dashboard. • The student selects a course to start. • The system displays the module content • The student interacts with the course materials (reading text, Solving exercises). • Student attempts quiz of each module and see the result.
Exceptional flow:	If the course content fails to load: • The system displays an error message. • The student can retry loading the course content or select a different module.
Business rule:	Course content should be structured in a way that facilitates incremental learning, building on previously acquired knowledge.

3.1.5 ATTEMPT QUIZ

Use case No:	UC-5
Use case Name:	Attempt quiz
Description:	Students try to attempt the MCQs type quiz of each module of the selected course and submit their answer.
Priority:	High
Actor:	Student
Precondition:	The student engages in the quiz.
Post condition:	The student submits his solution for evaluation.
Basic flow:	● The student reaches a quiz within a module. ● The student reads the quiz instructions. ● The student selects the correct option out of four given options and goes to the next quiz question. ● After submitting the result, students will be shown the quiz score.
Exceptional flow:	If the submission process fails (network error): ● The student retries to submission process. ● The student's work is saved locally to prevent data loss.
Business rule:	The quiz should be designed to test understanding of the module material.

3.1.6 RECIEVE FEEDBACK

Use case No:	UC-6
Use case Name:	Receive Feedback
Description:	The student receives feedback and sees his progress.
Priority:	Medium
Actor:	Student
Precondition:	• The student must be logged. • The student has completed or submitted a quiz.
Postcondition:	The student receives feedback based on their performance in the quiz.
Basic flow:	• The student navigates to the quiz section. • The student selects and completes the quiz. • After completing the quiz, the student submits their answers. • The system evaluates the student's responses. • The system displays feedback to the student.
Exceptional flow:	If there is a system error during feedback generation or display, the system notifies the student and advises them to try again later or contact support.
Business rule:	Feedback should be provided in a timely manner to facilitate learning and improvement

3.1.6 OBTAIN CERTIFICATE

Use case No:	UC-7
Use case Name:	Obtain certificate
Description:	The student to obtain a certificate upon successful completion of a course
Priority:	High
Actor:	Student
Precondition:	The student has successfully completed a course on the website.
Post condition:	The student has received a certificate for the completed course.
Basic flow:	• The student logs into their account on the website. • The student navigates to the Completed Courses section. • The student locates the course they have successfully completed. • The student clicks on the "Obtain Certificate" for the completed course. • The system validates the student's course completion status and generates a certificate. • The system presents the certificate to the student, either for download or display within the student's account. • The student can download, print, or share the certificate as needed.
Exceptional flow:	• If the student encounters any issues with obtaining the certificate, they can contact the website's support team for assistance. • If the student's course completion status is not properly reflected in the system, the student can provide additional documentation or evidence to the support team for resolution.
Business rule:	The certificate generation process must be reliable, secure, and tamper-proof.

3.2 ADMIN USE-CASE DIAGRAM

ADMIN USE-CASE DIAGRAM DESCRIPTION

3.2 .1 MANAGE STUDENT

Use case No:	UC-8
Use case Name:	Manage student
Description:	The admin can add, delete, view, or edit a student account.
Priority:	High
Actor:	Admin
Precondition:	The admin must login into the system
Post condition:	Users accounts are created, deleted or updated as needed.
Basic flow:	● Admin selects "Manage Student". ● Admin chooses to add, edit, delete, or view a student. ● System performs the chosen action.
Exceptional flow:	If the student does not have the necessary permissions, an error message is displayed.
Business rule:	Only admin can manage the student accounts.

3.2.2 GENERATE REPORTS

Use case No:	UC-9
Use case Name:	Generate Report
Description:	The administrator generates various reports on system usage, student activity, course performance, and other key metrics.
Priority:	High
Actor:	Admin
Precondition:	Admin must be logged into the system.
Postcondition:	Reports are generated and available for review or download.
Basic flow:	• Administrator logs in. • Navigates to "Generate Reports". • Selects the type of report to generate. • Configures report parameters (date range, user groups, course selection). • Initiates report generation. • System processes the report request. • System displays or provides a download link for the report.
Exceptional flow:	If the report generation process fails, the system logs the error and notifies the administrator.
Business rule:	Only authorized administrators can access sensitive report data.

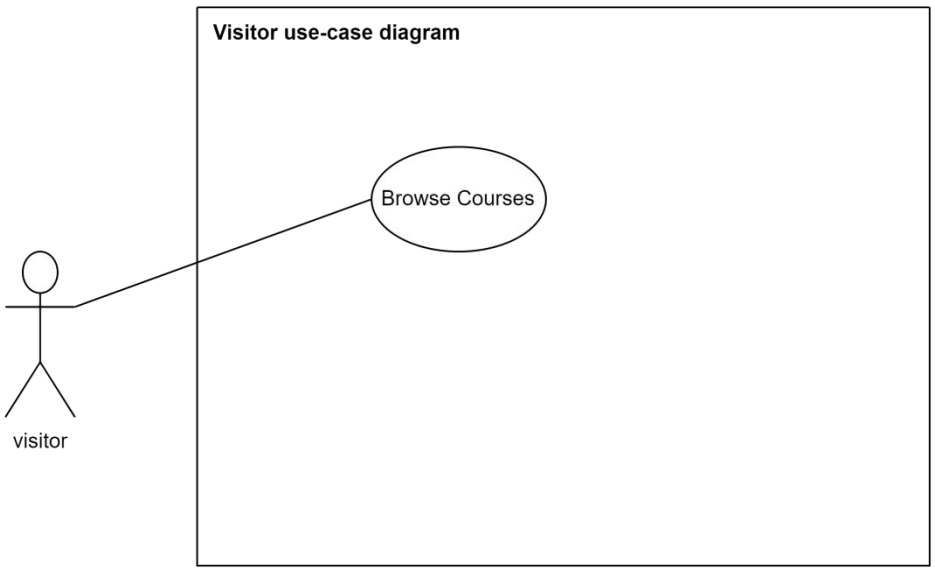
3.2.3 MONITOR SYSTEM PERFORMANCE

Use case No:	UC-10
Use case Name:	Monitor system performance
Description:	The administrator monitors the system's performance, including server status, load times, error rates, and other critical metrics.
Priority:	High
Actor:	Admin
Precondition:	Admin must be logged into the system.
Post condition:	The administrator has a clear view of the system's performance and can take necessary actions if issues are detected.
Basic flow:	• Administrator logs in. • Navigates to "Monitor System Performance". • Views real-time system performance metrics. • Analyzes data on server status, load times, error rates, and user activity. • Identifies any performance issues, takes necessary actions.
Exceptional flow:	If the monitoring tools fail, the system logs the error and notifies the administrator.
Business rule:	System performance monitoring should include regular checks and automated alerts for critical issues.

3.2.4 RESOLVE TECHNICAL ISSUES

Use case No:	UC-11
Use case Name:	Resolve Technical Issues
Description:	The admin can review, diagnose, apply fixes, and resolve technical issues.
Priority:	High
Actor:	Admin
Precondition:	Admin must be logged into the system.
Postcondition:	Technical issues are resolved.
Basic flow:	• Admin selects "Resolve Technical Issues". • Admin reviews the reported issues. • Admin diagnoses the issues. • Admin applies a fix the issue.
Exceptional flow:	If the issue cannot be diagnosed, it is escalated to a higher support level
Business rule:	None

3.4 VISITOR USE-CASE DAIGRAM



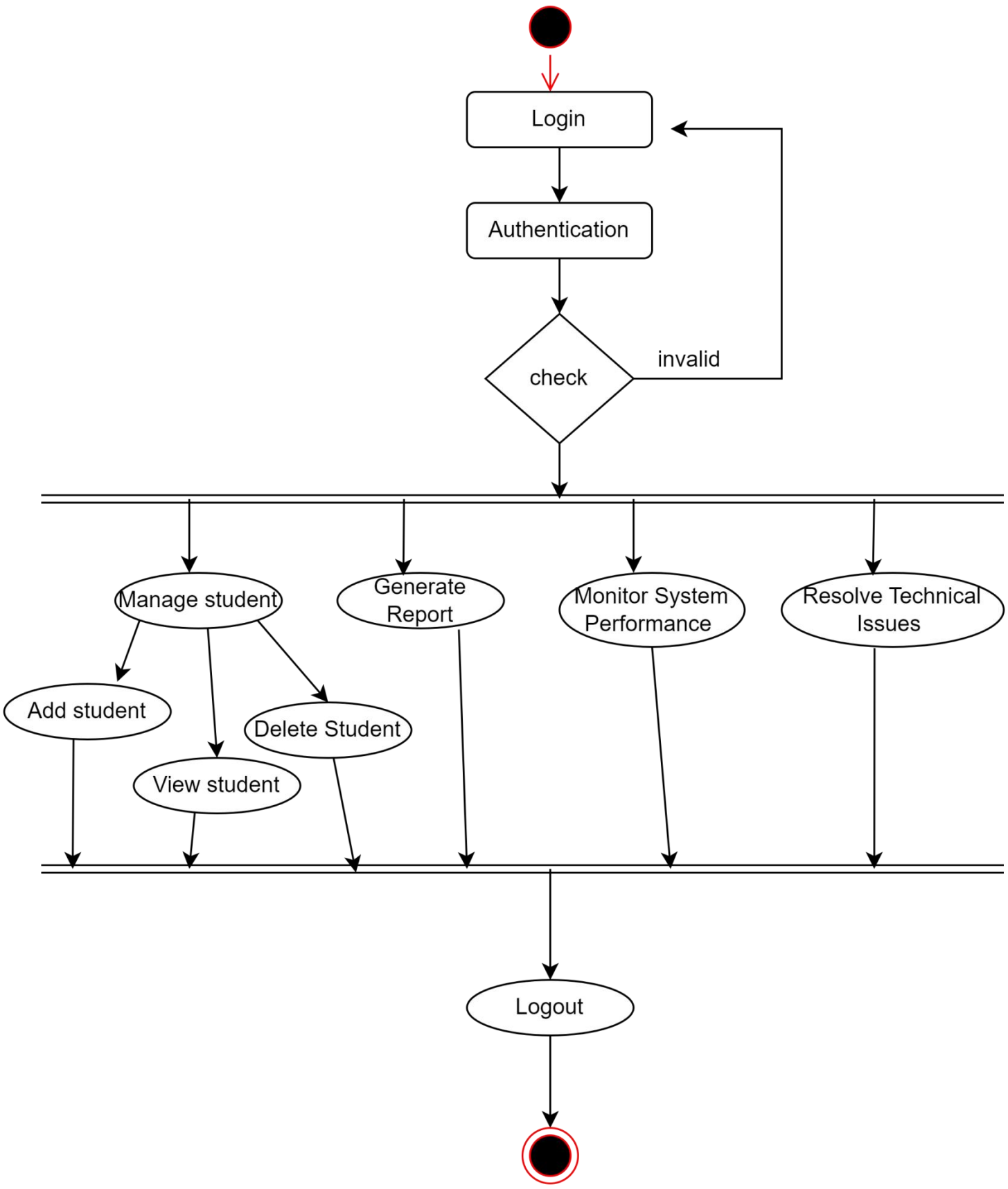
VISITOR USE-CASE DESCRIPTION

3.4 .1 BROWSE COURSES

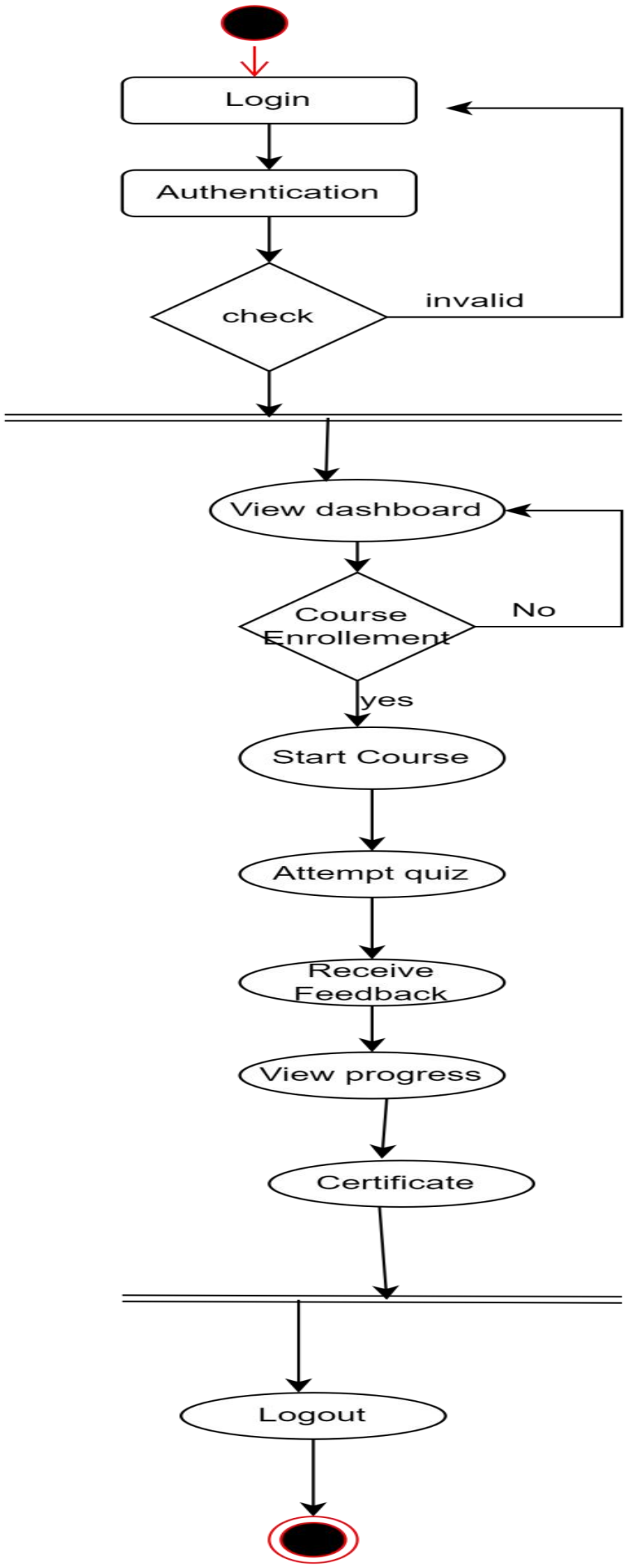
Use case No:	UC-12
Use case Name:	Browse Courses
Description:	The visitor browses the available courses on the website
Priority:	Medium
Actor:	Visitor
Precondition:	The visitor will be on the website's homepage or course catalog page.
Postcondition:	The visitor sees the available programming courses.
Basic flow:	• The visitor navigates to the course catalog or course listing page. • The visitor can filter the courses by category, difficulty level, start date, etc. • The visitor selects a course to view more details. • The visitor reviews the course description, syllabus, and any other relevant details. • The visitor may add the course to their cart or Wish list for later reference. • The visitor can continue browsing other courses or proceed to the enrollment process.
Exceptional flow:	If there are no courses available, the system notifies the user and provides alternative suggestions
Business rule:	The course details page must provide comprehensive information to help the visitor make an informed decision.

3.4 Activity Diagram

3.4.1 Admin Activity



3..4.2 Student Activity



3.5 Functional Requirements

Functional requirements include the services that the proposed system must provide to the entire system users. The system will perform the following functionalities:

Student Registration and Authentication

- Students must be able to register, log in, and log out.
- Admins must be able to manage student accounts.

Course Management

- Students can browse, enroll in, and start courses.
- Admins can create, update, and delete courses.

Learning Activities

- Users can attempt quizzes, receive feedback, and obtain certificates.

Dashboard and Progress Tracking

- Users have access to a dashboard to view their courses and track progress.

Support and Feedback

- Users can receive feedback on quizzes and course performance.
- Admins can monitor and resolve technical issues.

3.6 Non-Functional Requirements

Performance

- The system should handle multiple concurrent users efficiently.
- Response times should be minimal.

Scalability

- The platform should be scalable to handle growing numbers of users and courses.

Security

- User data must be securely stored and encrypted.
- Secure authentication and authorization mechanisms must be implemented.

Usability

- The user interface should be intuitive and user-friendly.
- Accessibility standards should be met.

Reliability

- The platform should have high availability with minimal downtime.
- Backup and recovery mechanisms should be in place.

Compatibility

- The platform should be compatible with various browsers and devices.

Maintainability

- The system should be designed for easy maintenance and updates.
- Clear documentation should be provided.

4. FEASIBILITY REPORT

4.1 Project Feasibility Report

The proposed project aims to enhance the coding experience by improving the programming language through various means such as language features, tooling, and developer experience. This application is a complete solution for all the problems that developers can face. This application uses the latest technologies like CSS, JS, and Node .JSP etc. Due to these technologies, this application is very fast and responsive and gives good user experience. This application provides students with a platform where they can learn programming languages with courses.

- Market Analysis
- Technical Feasibility
- Educational Content
- Operational Feasibility
- Economic Feasibility
- Organizational Feasibility

Market Analysis

- Identification of the target audience (e.g. students, professionals, educators).
- Analysis of the demand for programming education and online learning platforms.
- Competitive landscape and differentiation strategies.

Technical Feasibility

Current Language Analysis

- Evaluate the existing programming language for areas of improvement and enhancement.
- Identify technical challenges and limitations associated with the current language.

Proposed Enhancements

- Research and development of new language features to improve code readability, performance, and maintainability.
- Compatibility with existing codebases and libraries.
- Testing and validation of proposed enhancements.

Educational Content

- Examination of the availability and quality of educational resources and datasets.
- Feasibility of creating and curating diverse programming courses and learning materials.
- Integration of interactive coding challenges and projects.

Operational Feasibility

Developer Adoption

- Evaluation of the operational processes required to deliver courses and manage user interactions.
- Assessment of student support, course enrollment, content updates, and platform scalability.
- Identification of potential operational challenges and risk mitigation strategies.

Tooling and Integration

- Compatibility with existing development tools, IDEs, and libraries.
- Integration with version control systems, building pipelines, and deployment processes.

Economic Feasibility

Cost-Benefit Analysis

- Cost estimation for website development, hosting, maintenance, and content creation.
- Revenue projections and business model analysis (e.g., subscription-based, fermium, ad-supported).
- Identification of potential funding sources and investment requirements.

Return on Investment (ROI)

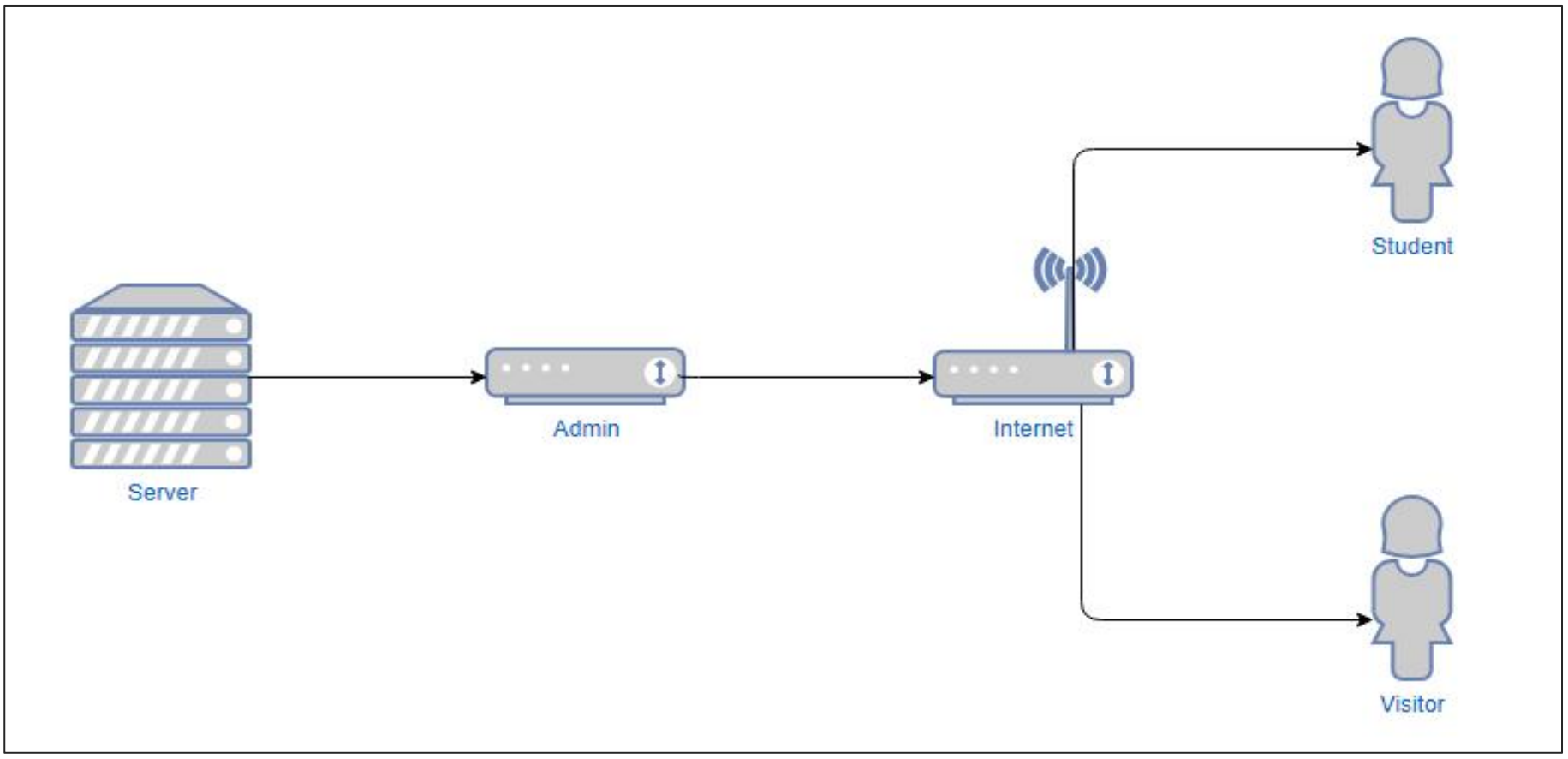
- Calculation of the expected ROI based on increased developer efficiency, reduced debugging time, and improved code maintainability.
- Long-term cost savings and competitive advantage through enhanced language capabilities.

Organizational Feasibility

- Assessment of the organizational structure and human resource requirements.
- Identification of key personnel, roles, and responsibilities.
- Evaluation of the capacity to manage technical, educational, and administrative aspects of the platform.

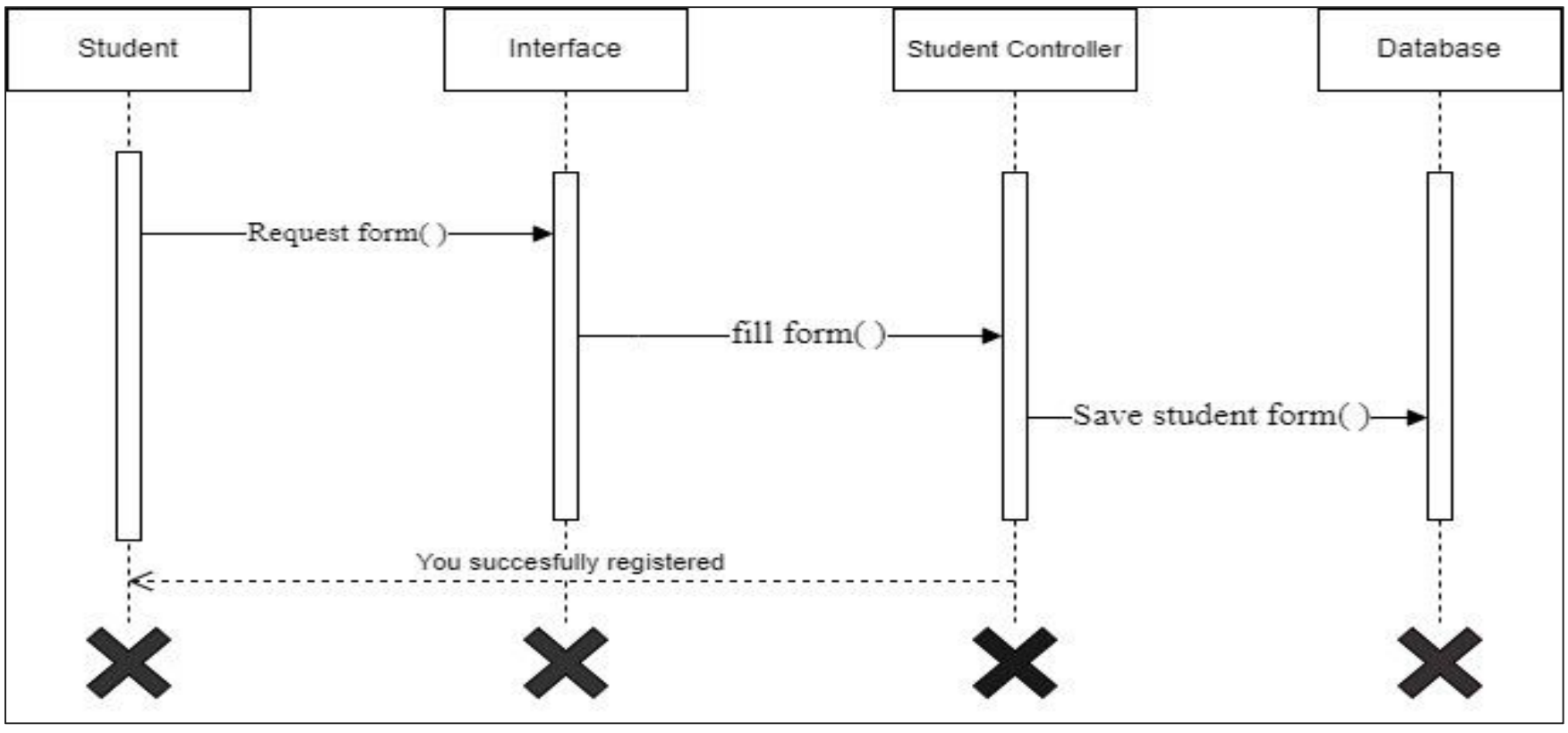
5. DESIGN AND ARCHITECTURE

5.1 Network Diagram

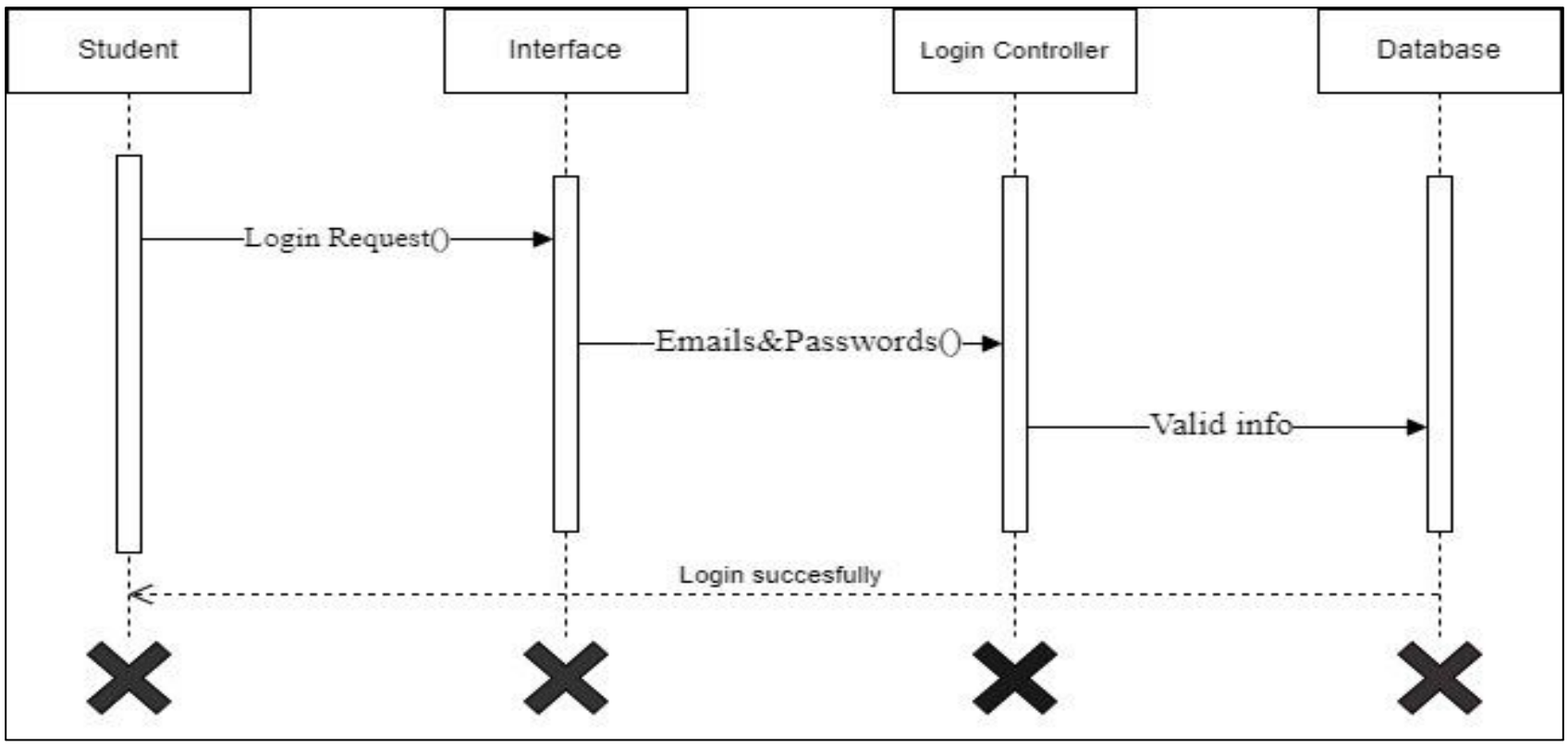


5.2 Sequence Diagram

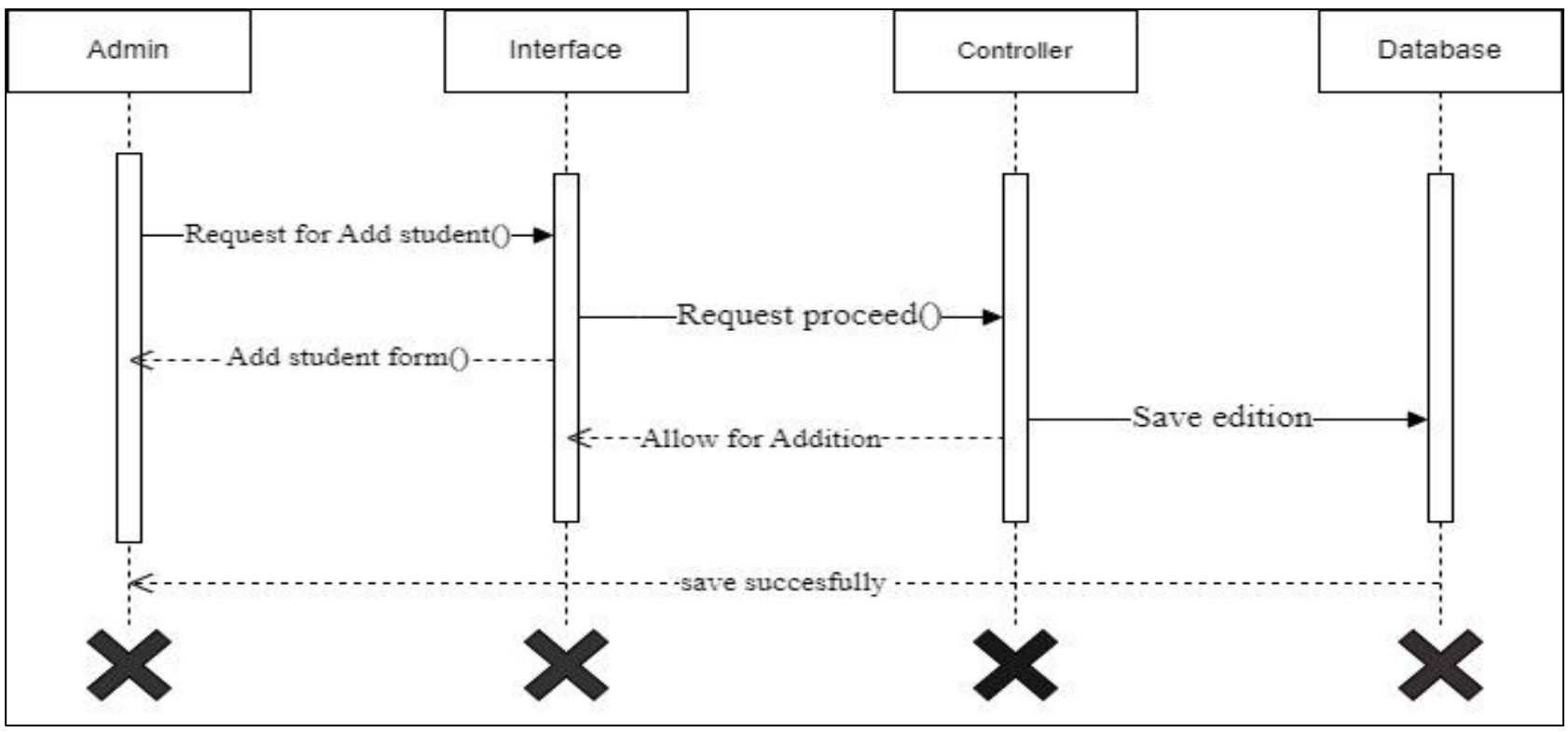
5.2.1 Sequence Diagram Create Account



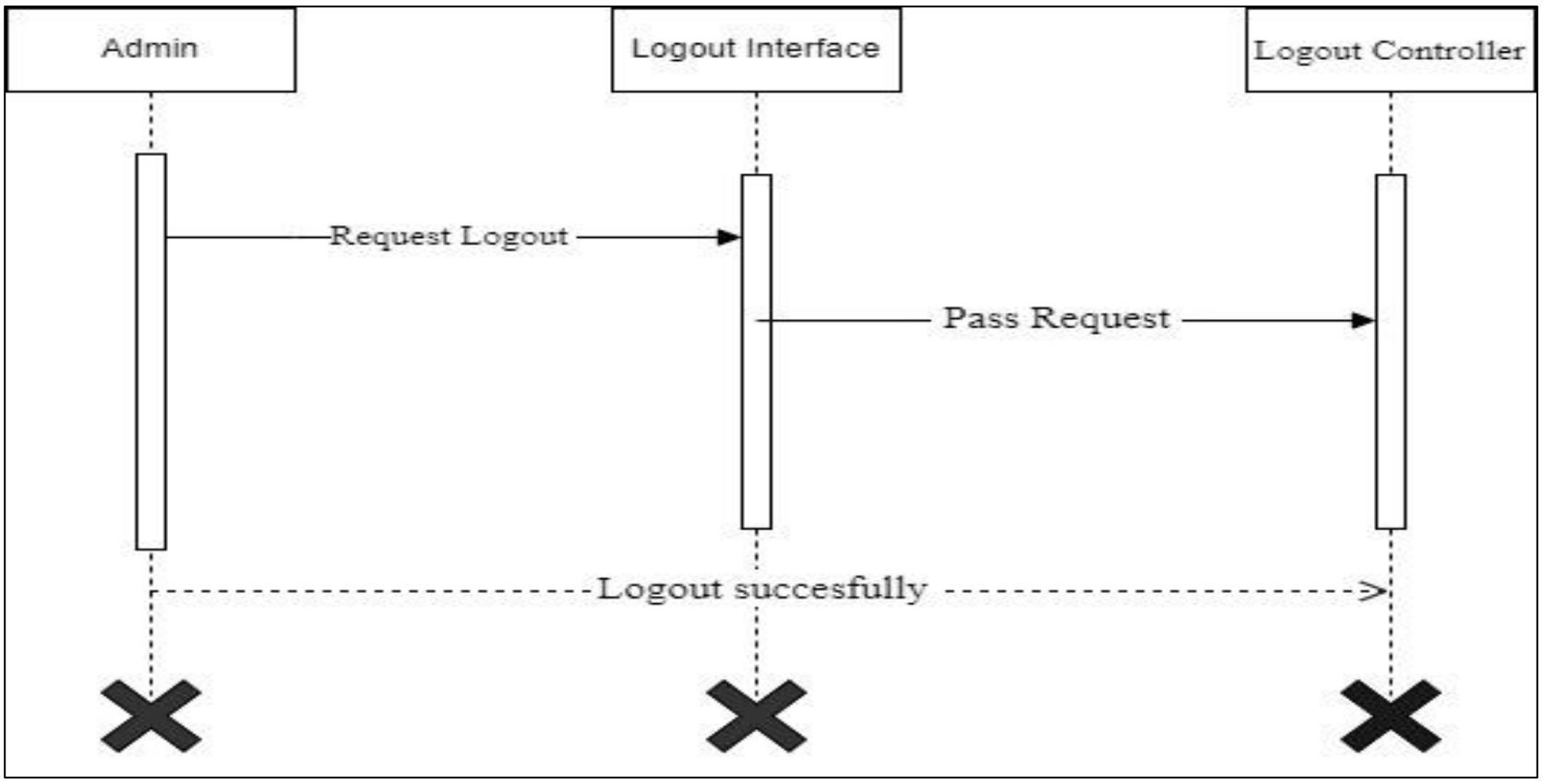
5.2.2 Sequence Diagram Login



5.2.3 Sequence Diagram Add Student

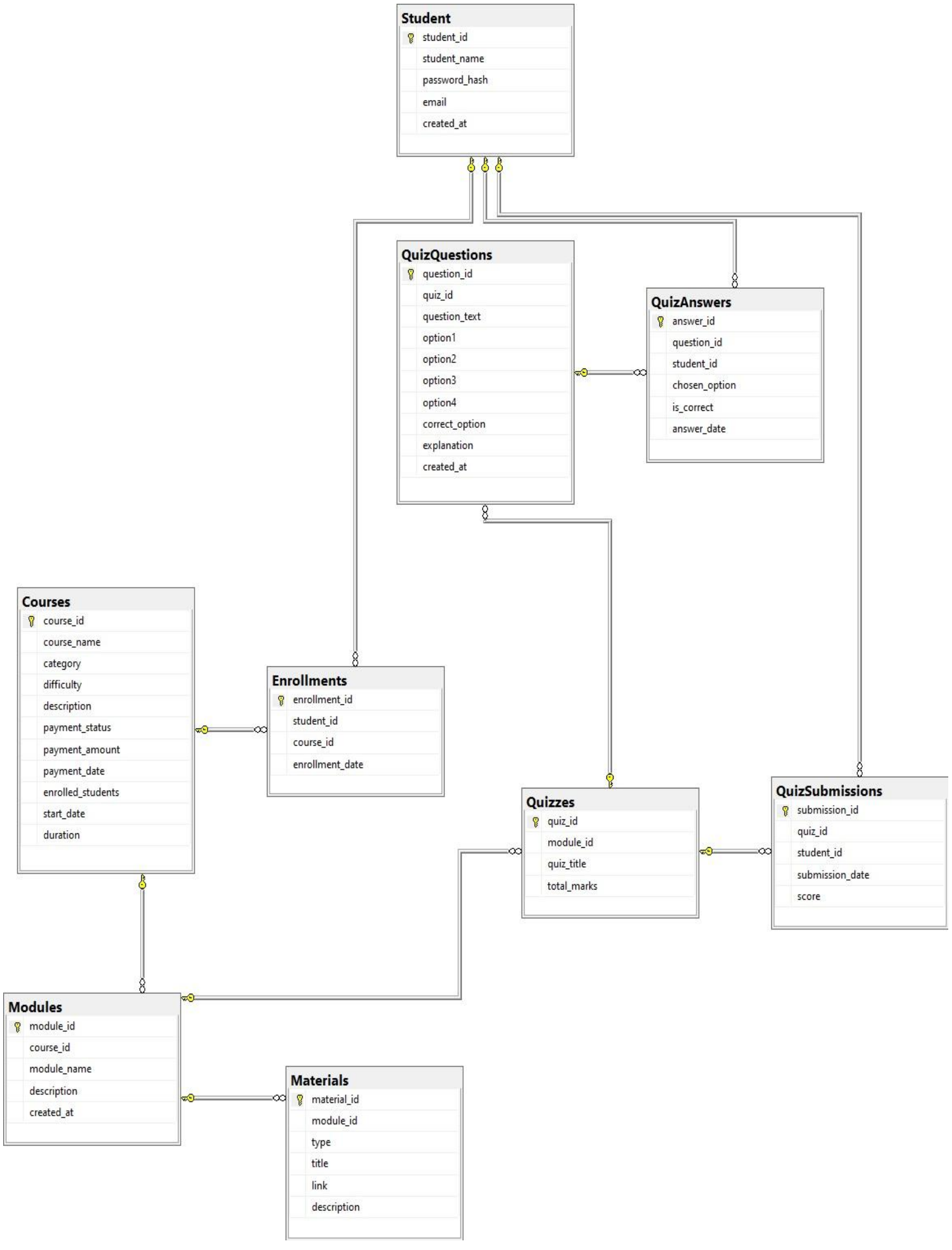


5.2.4 Sequence Diagram Logout



E-R Diagram

This is an Entity-Relationship Diagram (ERD) for the "Learn Code Pro" website that involves identifying the key entities and their relationships to design a clear and comprehensive database structure. Below is a simplified ERD that represents the main entities and relationships for the website.



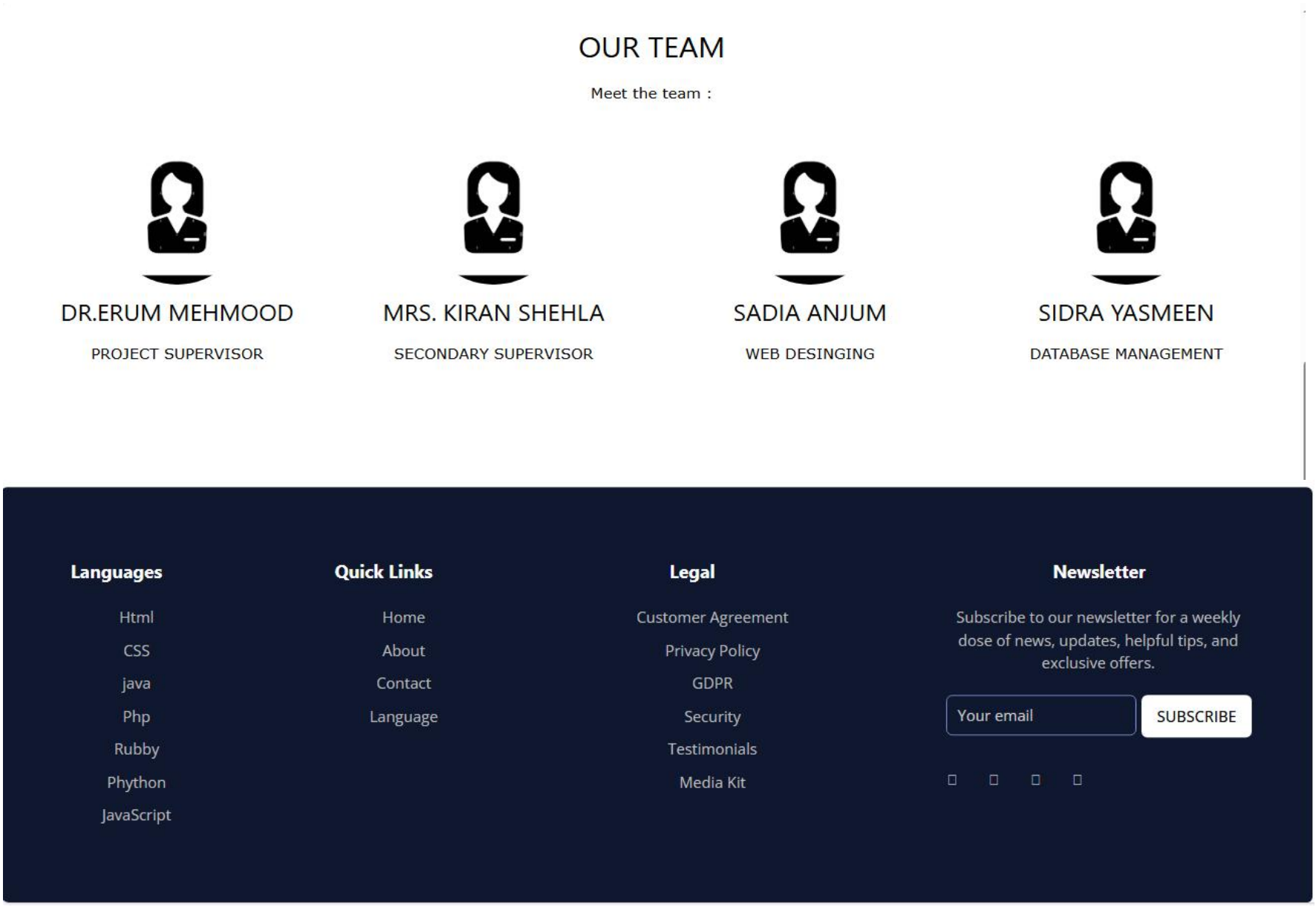
APPENDIX

Home Page

Course List Page

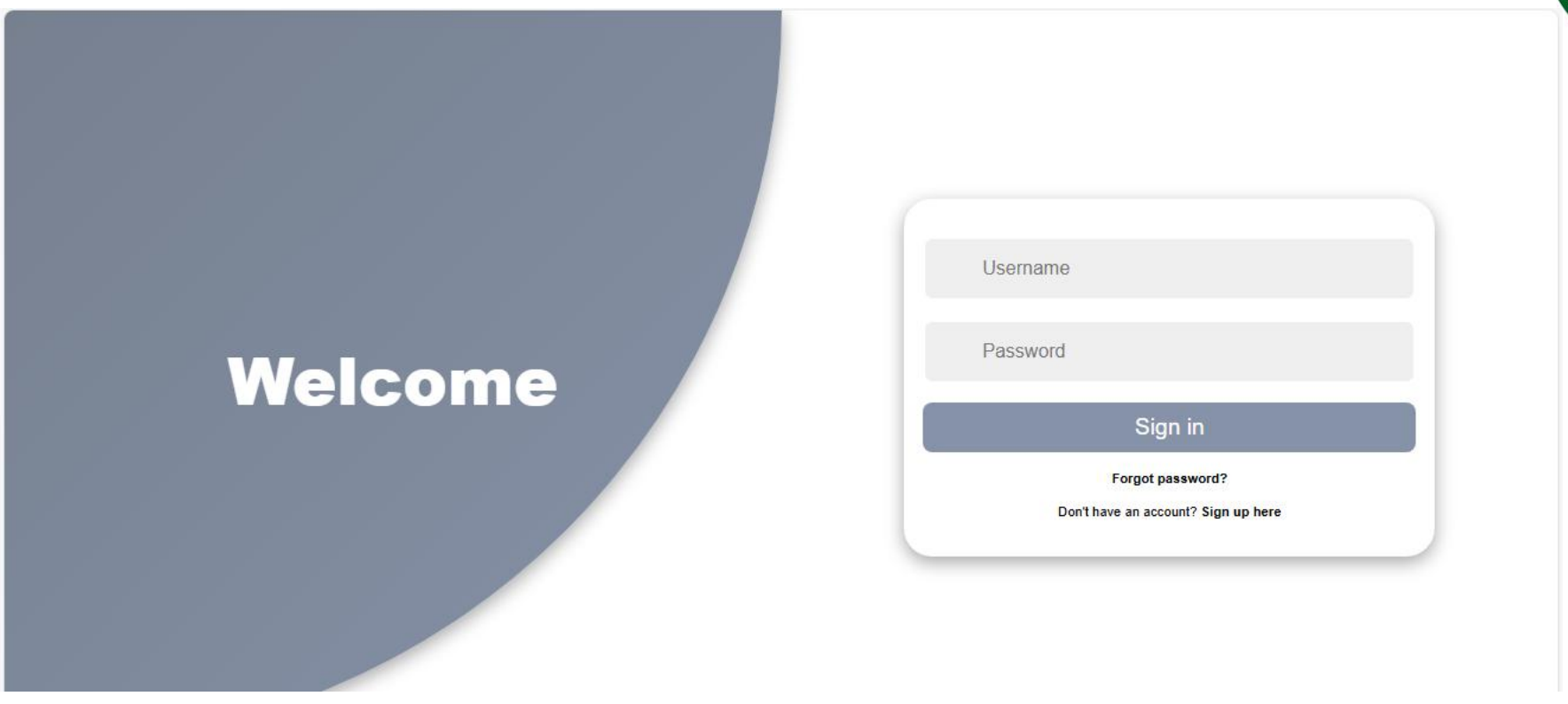
LEARN CODE PRO

Footer Page



Register Page

LEARN CODE PRO



Contact Page