Software Requirements Specification (SRS)

Graduate Registration Enforcement for Hadaf Platform

COOP Training Project

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Contents

1 Introduction

1.1 Overview

This document presents the functional and non-functional requirements of the system, including interface designs, constraints, and expected behavior.

1.2 Purpose

This document outlines the software requirements for a system that ensures female graduates of Technical Colleges register on the Hadaf employment platform before being allowed to request or download their graduation certificates.

1.3 Scope

The proposed web-based system integrates with the college's Student Information System (SIS). Upon graduation, students are redirected to the Hadaf platform to complete their registration. Certificate access will only be granted after successful registration verification.

1.4 Intended Audience(stakeholders)

- Technical college students (graduates)

- College administration

- Hadaf platform team

- Developers and testers

1.5 Assumptions and Dependencies

- Students provide valid national ID and personal information.

2   Business Requirements

2.1   Business Purpose

The goal of this project is to ensure that female graduates from Technical Colleges register on the Hadaf employment platform before accessing their graduation certificates. This promotes job readiness and aligns with national employment initiatives.

2.2   Business Objectives

- **Employment Readiness:** Ensure graduates are registered on Hadaf.

- **System Integration:** Link the Student Information System (SIS) with Hadaf.

- **User Experience:** Simplify the registration process for graduates.

2.3   Expected Benefits

- **Enhanced Job Opportunities:** Promoting Hadaf registration increases employability.

- **Seamless Integration:** Automates verification of registration status.

- **Administrative Efficiency:** Reduces manual checks for certificate issuance.

3 Specific Requirements

3.1 User Story

– As a graduating student, I want to access my graduation certificate, but only after registering on the Hadaf platform.

– As a graduating student, I want to log in using the Nafath platform to verify my identity securely.

– As a graduating student, I want to link my Hadaf account to the system, so I can verify my registration.

– As a graduating student, I want to track the status of my graduation certificate request, so I am informed about the progress.

– As a graduating student, I want to download my graduation certificate once my request is approved.

– As a college administrator, I want to view submitted graduation certificate requests, so I can manage them efficiently.

– As a college administrator, I want to verify the Hadaf registration of students to ensure compliance.

– As a college administrator, I want to approve or reject certificate requests based on the registration status.

– As a user, I want the system to provide clear error messages when an operation fails, so I can understand the issue.

3.2 Functional Requirements

- **User Authentication via Nafath**

  - The user shall be able to log in using the Nafath platform.
  - The system shall redirect the user to the Nafath login interface.
  - The user shall authenticate using their national ID and mobile number through Nafath.
  - Upon successful authentication, the system shall retrieve the user's information from Nafath.
  - If authentication fails, the system shall display an appropriate error message.
  - The user shall not be required to create a new account manually.

- **Account Linking with Hadaf**

  - The user shall be able to link their account with the Hadaf platform.
  - The system shall prompt the user to enter their Hadaf account credentials.
  - The system shall verify the credentials via the Hadaf API.
  - If the credentials are valid, the system shall confirm successful linkage.
  - If the credentials are invalid, the system shall display an appropriate error message.

- **Graduation Document Request Submission**

  - The user shall be able to submit a request to issue the graduation document.
  - The system shall display a form for submitting the request.
  - The system shall verify the user's registration status on the Hadaf platform.
  - If the user is not registered, the system shall reject the request and display instructions to register on Hadaf.
  - If the user is registered, the system shall submit the request to the graduation office.

- **Notification of Request Status**

  - The system shall notify the user once the request is approved.
  - The system shall allow the user to download the graduation document once issued.
  - If there is a delay or issue, the system shall notify the user with the reason.

- **User Dashboard**

  - The user shall be able to view their graduation status.
  - The user shall see whether they are registered in Hadaf or not.

– The user shall view the status of their document request (e.g., pending, approved, rejected).

– **Administrator Dashboard**

    – The administrator shall be able to view all submitted graduation document requests.

    – The administrator shall be able to filter requests by status (pending, approved, rejected).

    – The administrator shall be able to manually verify a student's registration if needed.

    – The administrator shall be able to approve or reject document requests.

– **Logging and Audit Trail**

    – The system shall log all important actions performed by users and administrators.

    – The logs shall be accessible by authorized personnel for auditing.

– **Error Handling and User Feedback**

    – The system shall provide clear error messages when an operation fails.

    – The system shall provide hints or instructions to help users correct common issues.

3.3 Non-Functional Requirements
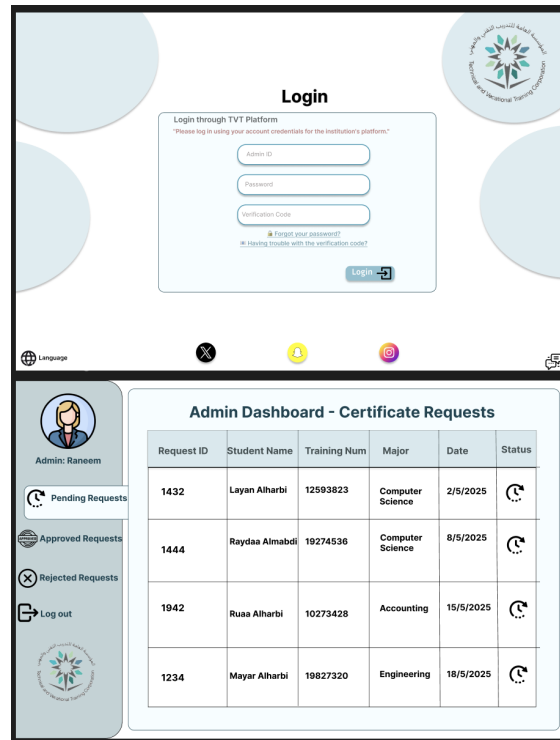
- **Security**: Data encryption and secure authentication.

- **Usability**: The software should have a user-friendly interface and provide clear instructions.

- **Reliability**: Ensure accurate detection of graduation and registration status.

- **Performance**: Average response time should be under 2 seconds.

- **Availability**: The system must be available 24/7.

- **Accessibility**: The interface should support users with disabilities and follow accessibility guidelines.

4 Glossary

Term	Definition
API	Application Programming Interface, used to interact with external systems or services.
Hadaf	National platform for employment services.
SIS	Student Information System.
Nafath	National unified authentication platform.
Authentication	The process of verifying the identity of a user.
Dashboard	A graphical interface that provides users with quick access to relevant information and actions.
Logging	The process of recording system events and actions for auditing and troubleshooting.
Audit Trail	A record that shows who has accessed a system and what operations were performed.
Encryption	The process of encoding data to protect it from unauthorized access.

Table 1: Glossary of Key Terms

5   The Prototype

Figure 1: The Admins prototype

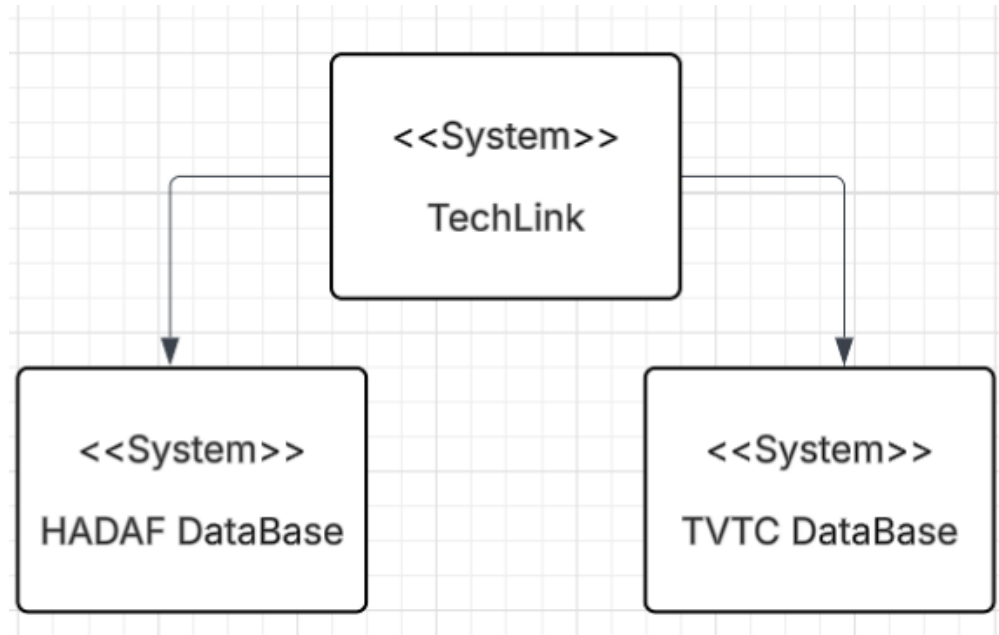Figure 2: The Student prototype
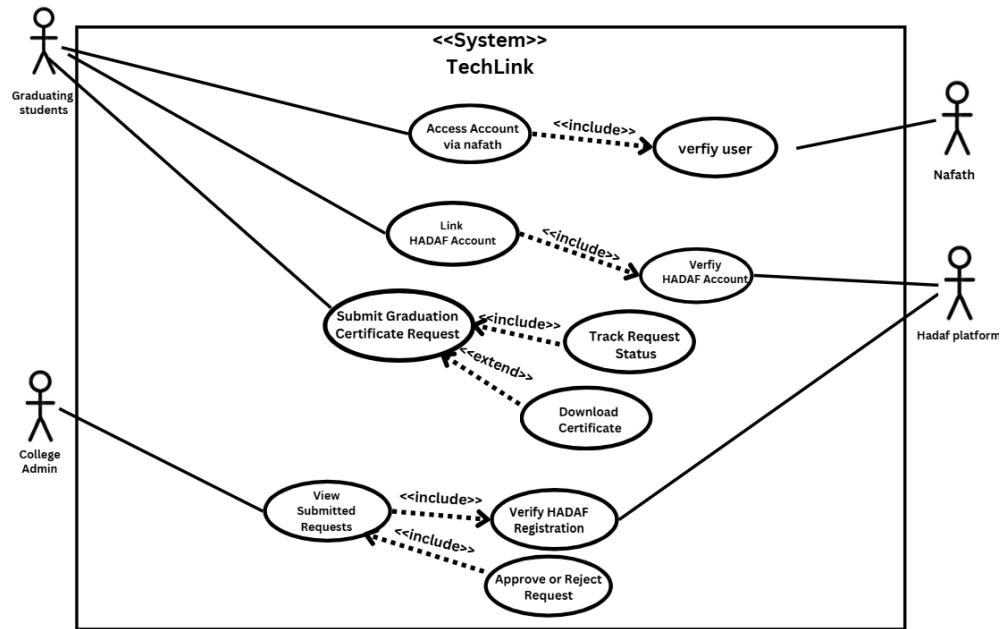
6 UML Diagrams

Figure 3: context model
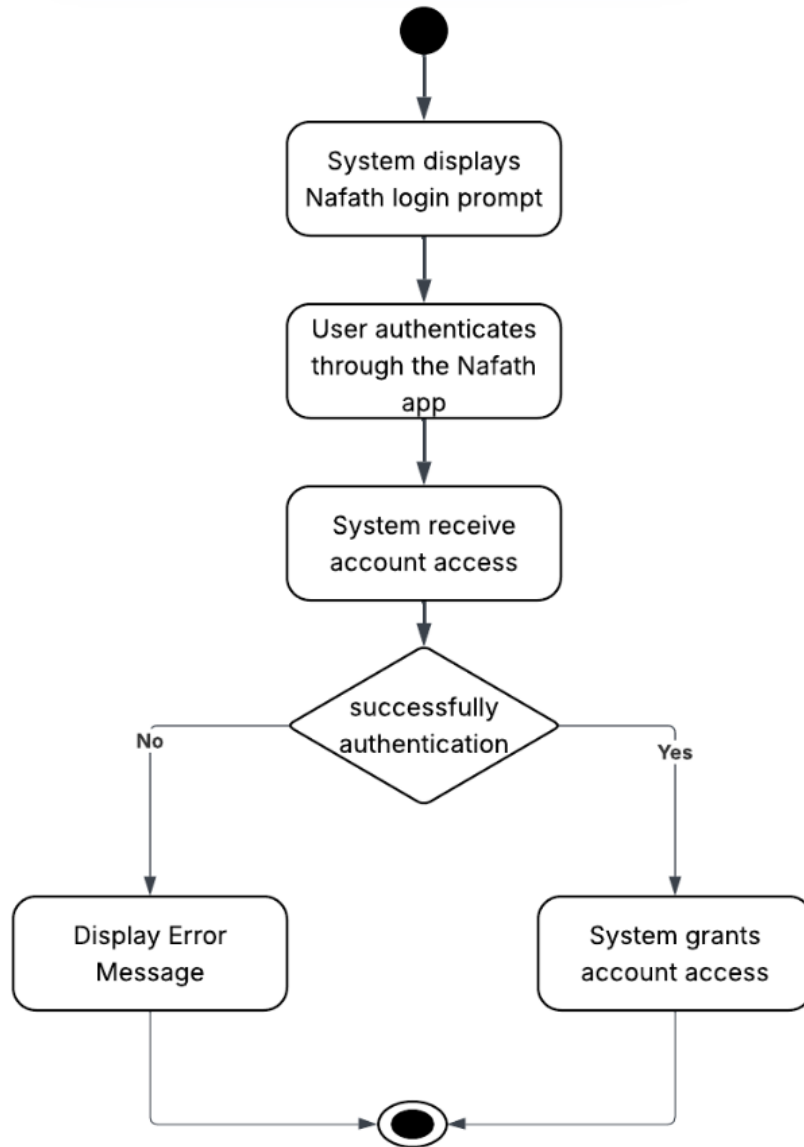
Figure 4: Use Case Diagram

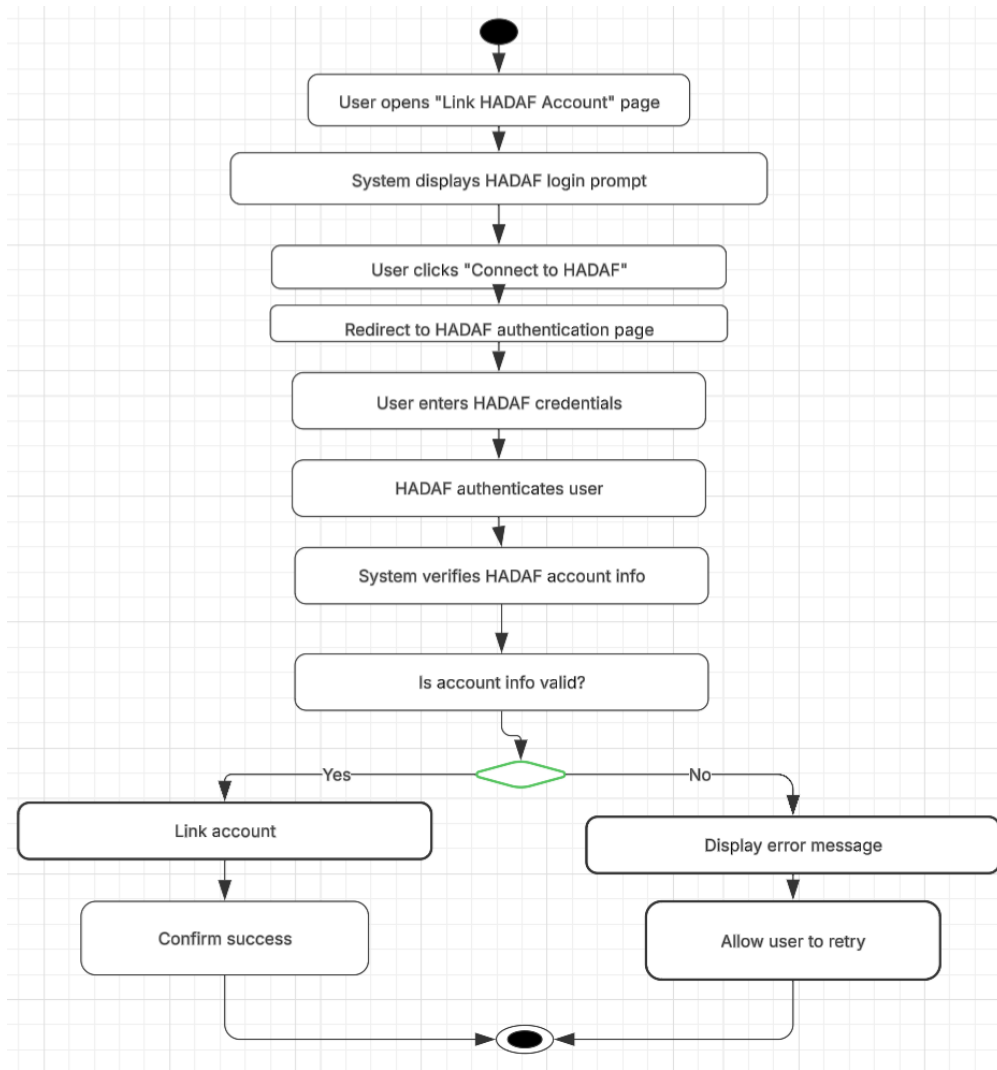Figure 5: Activity Diagram: Access Account via Nafath
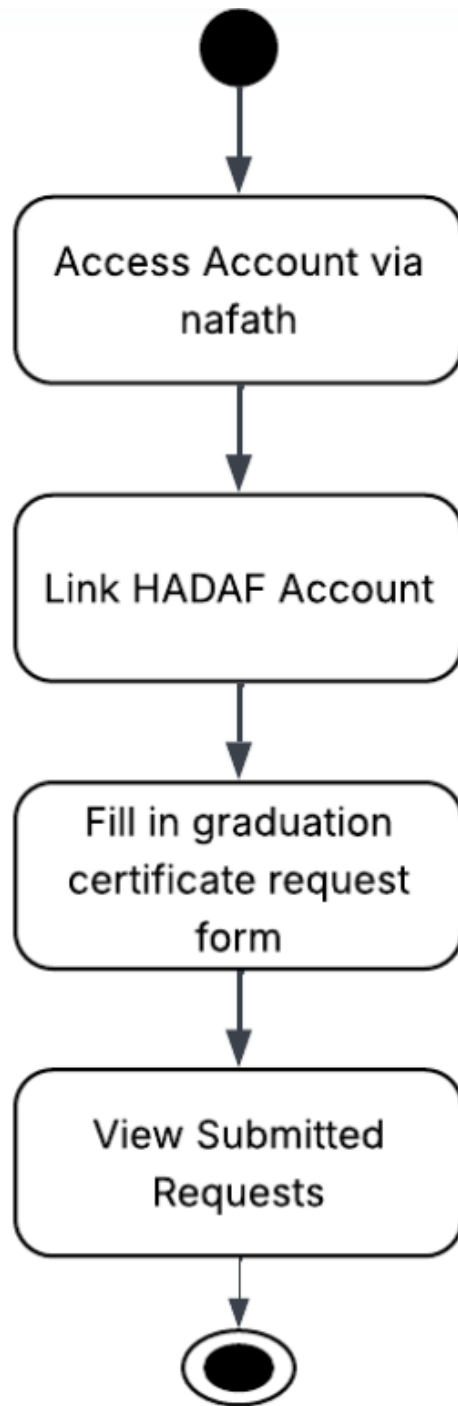
Figure 6: Activity Diagram: Link HADAF Account

Figure 7: Activity Diagram: Submit Graduation Certificate Request
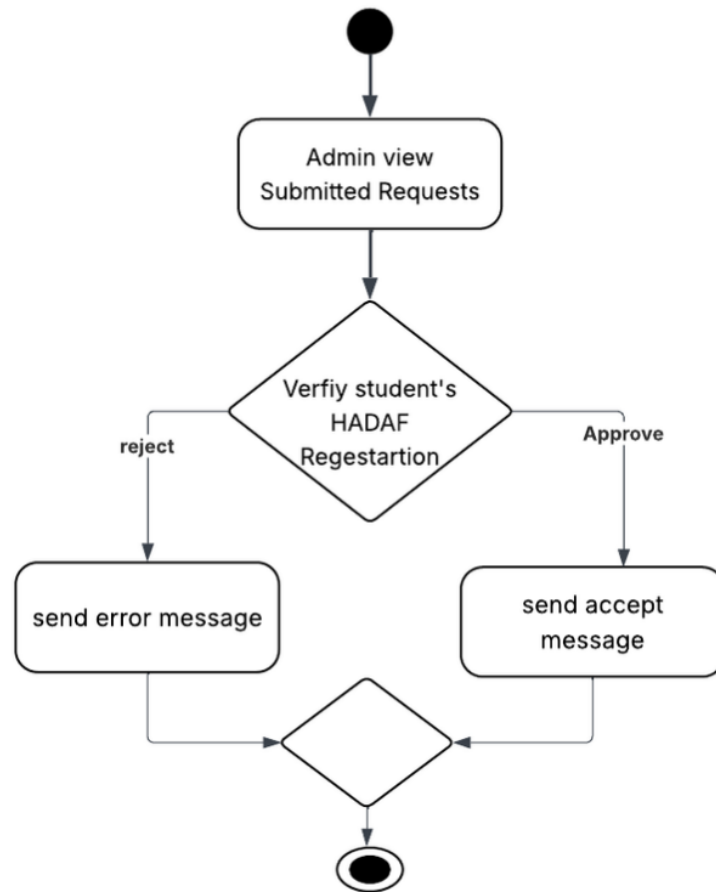
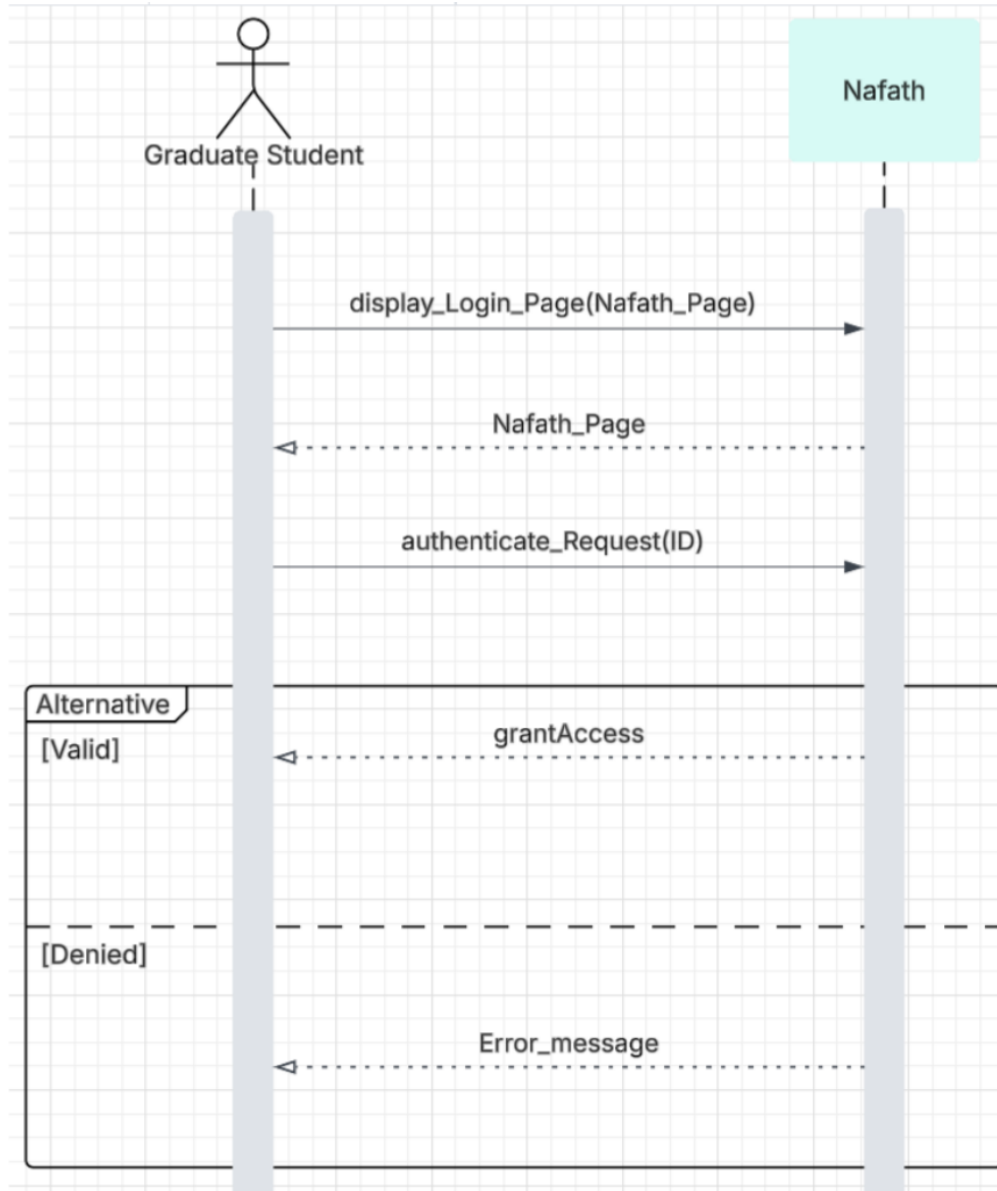Figure 8: Activity Diagram: View Submitted Requests

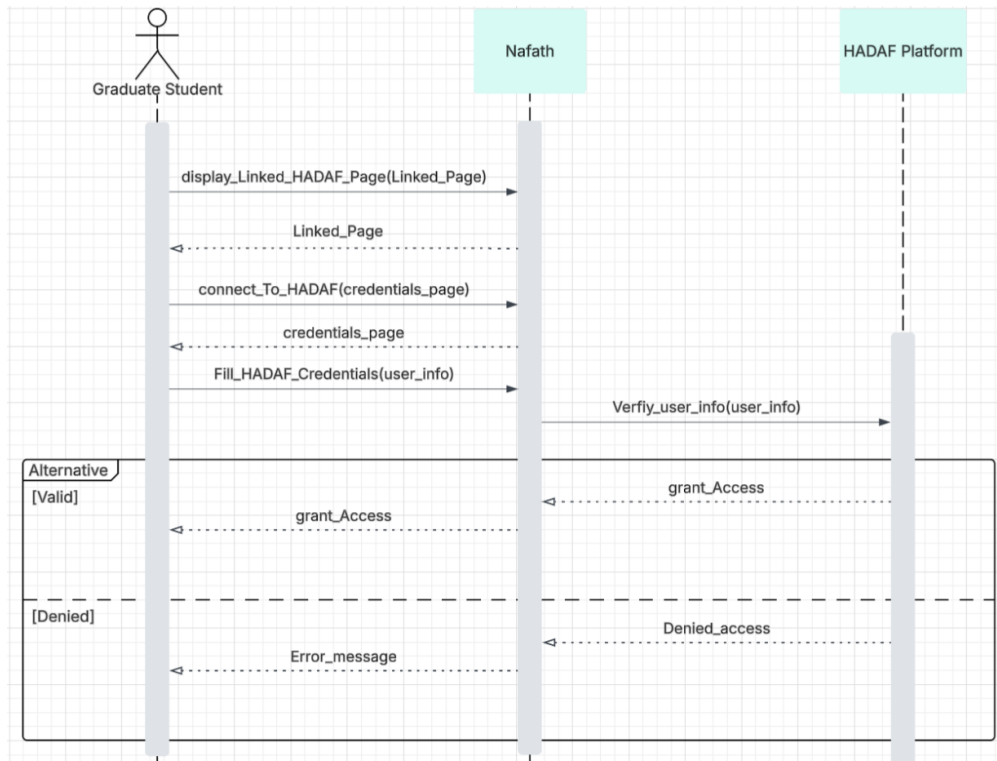Figure 9: Sequence Diagram: Access Account via Nafath

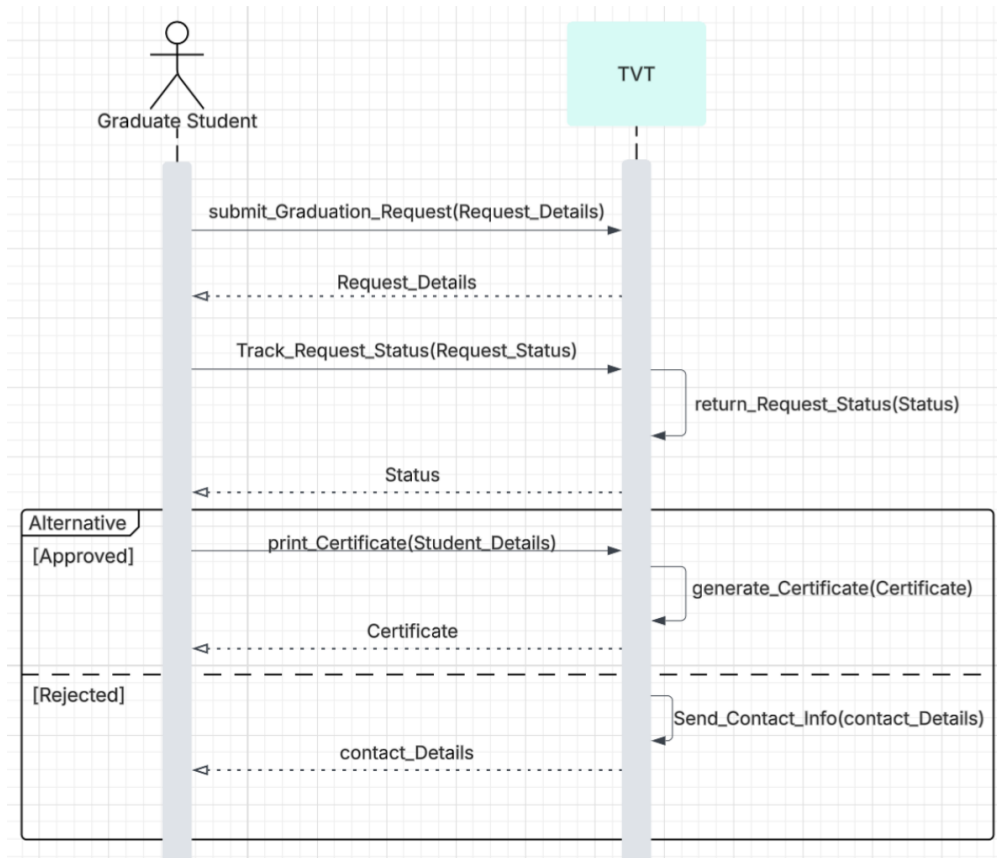Figure 10: Sequence Diagram: Link HADAF Account

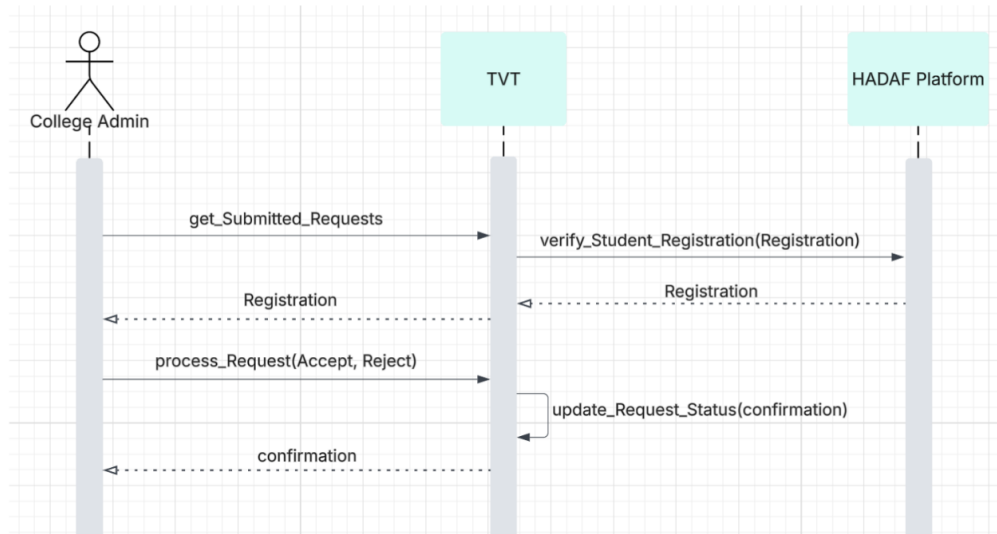Figure 11: Sequence Diagram: Submit Graduation Certificate Request

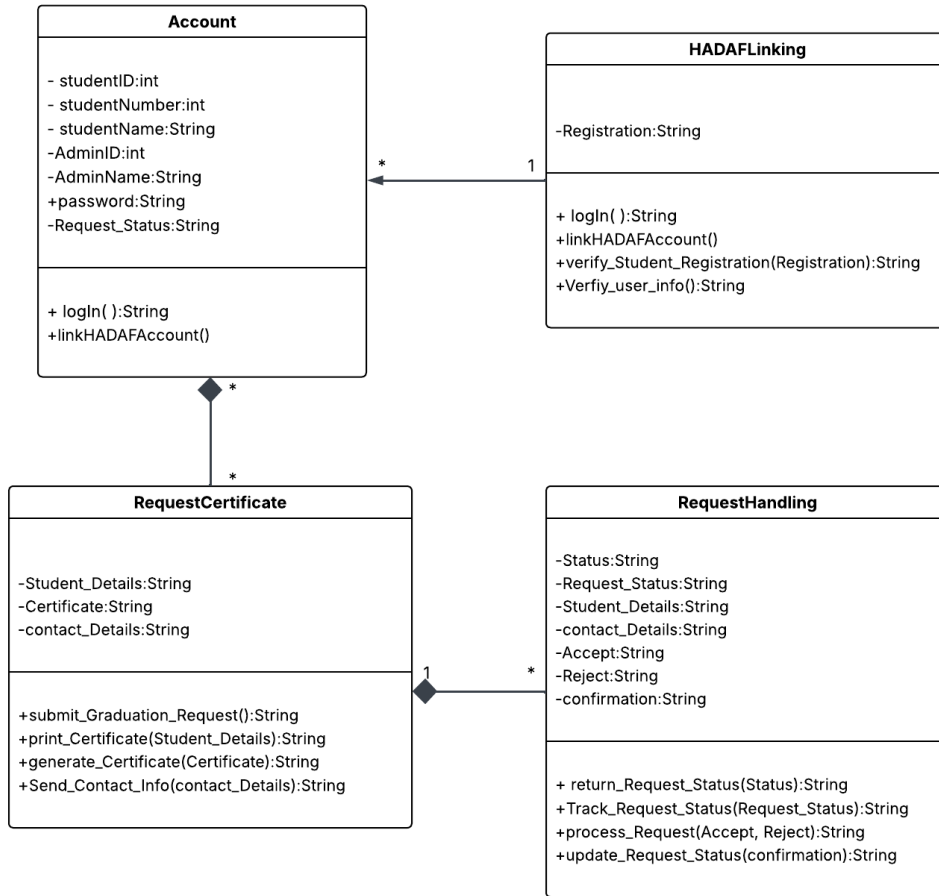Figure 12: Sequence Diagram: View Submitted Requests

Account

- studentID:int
- studentNumber:int
- studentName:String
- AdminID:int
- AdminName:String
+ password:String
- Request_Status:String

+ logIn( ):String
+ linkHADAFAccount()

HADAFLinking

- Registration:String

+ logIn( ):String
+ linkHADAFAccount()
+ verify_Student_Registration(Registration):String
+ Verfiy_user_info():String

RequestCertificate

- Student_Details:String
- Certificate:String
- contact_Details:String

+ submit_Graduation_Request():String
+ print_Certificate(Student_Details):String
+ generate_Certificate(Certificate):String
+ Send_Contact_Info(contact_Details):String

RequestHandling

- Status:String
- Request_Status:String
- Student_Details:String
- contact_Details:String
- Accept:String
- Reject:String
- confirmation:String

+ return_Request_Status(Status):String
+ Track_Request_Status(Request_Status):String
+ process_Request(Accept, Reject):String
+ update_Request_Status(confirmation):String

Figure 13: Class Diagram

7   Appendices

- Guide: How to log in to Hadaf.

- API documentation for integration with Nafath and Hadaf.

8   References

- Technical College SIS documentation.

- Hadaf platform user and developer guidelines.