



## Project Documentation

Project: DIU Bus Management System

Name: Enamul Hakim Khan

ID:0242220005341127

A project (SE 221: Object Oriented Design) submitted in fulfillment of the requirements for the degree of BSc in Software Engineering.

DEPARTMENT OF SOFTWARE ENGINEERING

Spring-2024

## **DECLARATION OF PROJECT**

Author Full Name: Enamul Hakim Khan

Student ID: 0242220005341127

Title of Project: DIU Bus Management System

Academic Session: 2024

I, the author, hereby declare that the project becomes the property of Daffodil International University (DIU) and to be placed at the department of Software Engineering. I also give permission to the DIU to reproduce this project in whole or in part for the purpose of research of academic exchange only.

Certified by:

Enamul Hakim Khan

---

SIGNATURE

STUDENT ID: 0242220005341127

DATE: 25 / 05 / 2024

□

---

SIGNATURE OF SUPERVISOR

NAME OF SUPERVISOR: Akash Ghosh

DATE :

# DIU Bus Management System

## **ABSTRACT**

The DIU Bus Management System is a Java-based program developed using the JavaFX framework, facilitating knowing real-time Bus schedule for student And It also can Manage DIU all Bus and departure time schedule. The application is designed to run on desktop systems, and I try to solve a real time problem which I face.

# **CHAPTER 1: INTRODUCTION**

## **1. Project Over view**

DIU Bus Management System Application is a desktop-based software that aims to make managing all DIU buses very easy and convenient. Built in Java using JavaFX.

## **2. Obstacles**

During the development of the DIU Bus Management System, several challenges were encountered. One of them is Data Processing and use proper CRUD operation and implement proper user authentication system.

### **3. Software and hardware requirements**

Software and application platform

- IntelliJ IDEA [JavaFx]

Hardware:

- Unfortunately, there is no hardware used in my project.

### **4. Milestone and Reporting**

- Analysis
- Development
- Testing

### **5.Requirement Elicitation**

- Student

Student Can see all the assigned bus and also use filter with select rout name

## ➤ Bus Authority

- Sign Up
- Log in with username & password
- Assign new bus name & Capacity
- Assign bus for trip with bus name & time & Rout
- Bus Clearance with select bus name
- Return Bus Clearance with select bus name

**Users:**

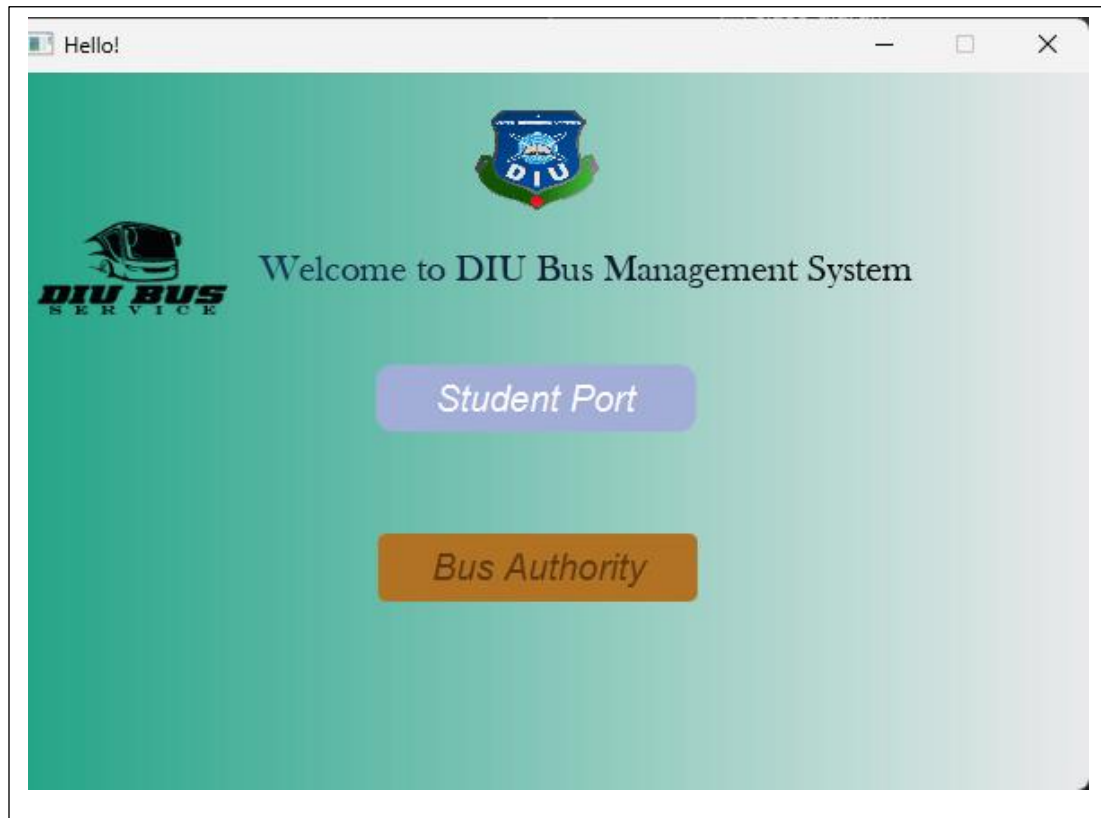
- Student
- Bus Authority

**System Task:**

- Manage All DIU Bus


## CHAPTER 2: PROJECT METHADOLGY AND USER MANUAL

### Application Front Page






## Login Form



**Bus Authority**

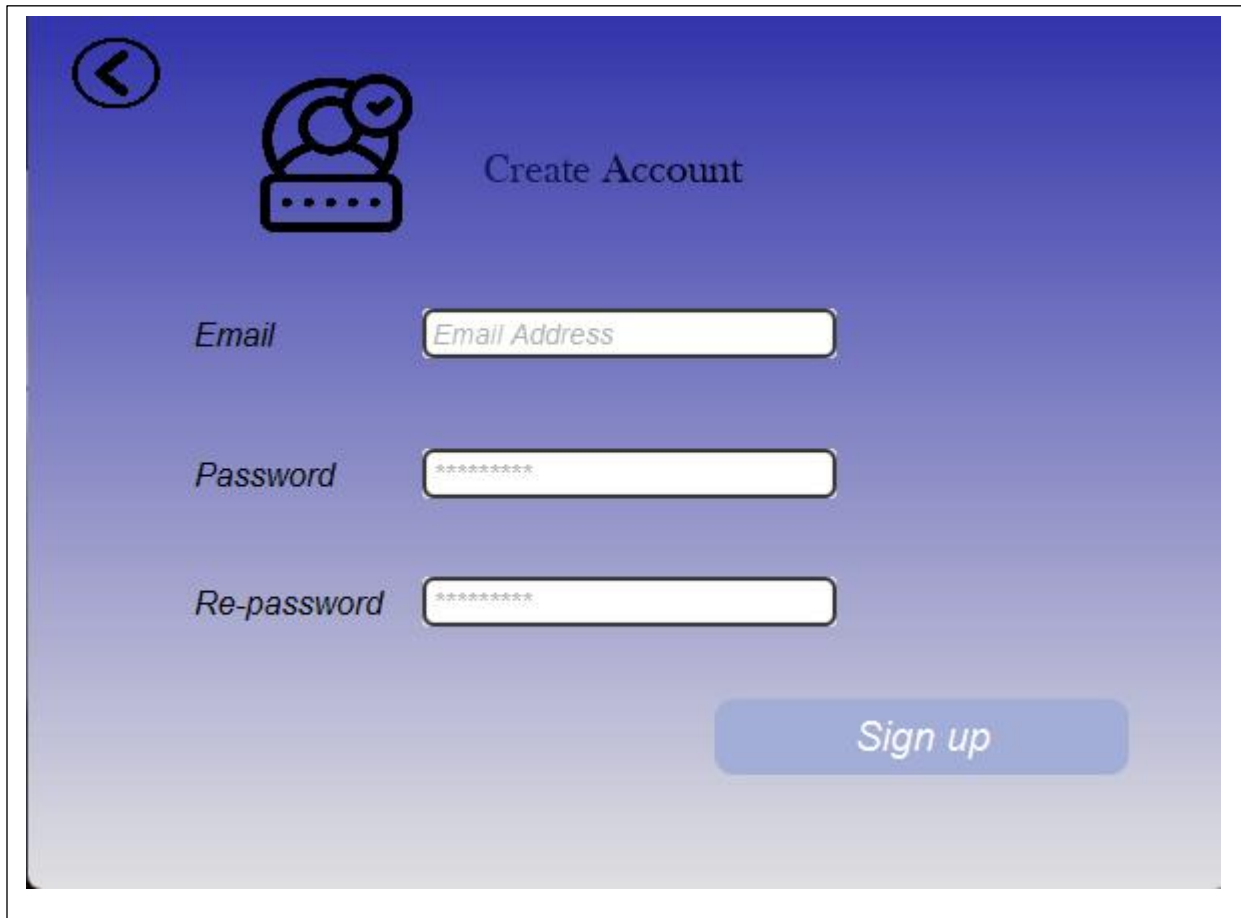
*Username*

*Password*  



[Log in](#)

[Sign Up](#)

## Sign Up Form



The image shows a mobile application sign-up form with a blue gradient background. At the top left is a back arrow icon. Next to it is an icon of a person with a checkmark. The title "Create Account" is centered at the top. Below the title are three input fields: "Email" with a placeholder "Email Address", "Password" with a placeholder of seven asterisks, and "Re-password" with a placeholder of seven asterisks. A "Sign up" button is located at the bottom right.

  **Create Account**


*Email*

*Password*


*Re-password*


**Sign up**

## Bus Authority



# Bus Authority Management






## Dashboard

[Log out](#)

| All Buses | Capacity | Available Bus | On Trip Bus |
|-----------|----------|---------------|-------------|
| s1        | 60       | Available     | Off Trip    |
| s2        | 60       | Available     | Off Trip    |
| s3        | 60       | Available     | Off Trip    |
| s4        | 60       | Available     | Off Trip    |
| s5        | 60       | Available     | Off Trip    |
| s6        | 70       | Available     | Off Trip    |

[Add Bus](#)[Assign Trip](#)[Card Clearance](#)[Bus Return Clearance](#)

## New Bus Assign Form



New Bus Information

Bus Name/Id

Capacity

Submit

## Bus Trip Assign Form



The image shows a web-based form titled "Assign Bus Form" with a blue-to-green gradient background. In the top left corner is a logo for "DIU BUS SERVICE" featuring a stylized bus icon. The form contains three input fields: "Bus name/Id" (a single dropdown menu), "Time" (three separate dropdown menus for hours, minutes, and AM/PM), and "Rout" (a single dropdown menu). A blue "Assign" button is located in the bottom right corner of the form area.

**DIU BUS SERVICE**

### Assign Bus Form

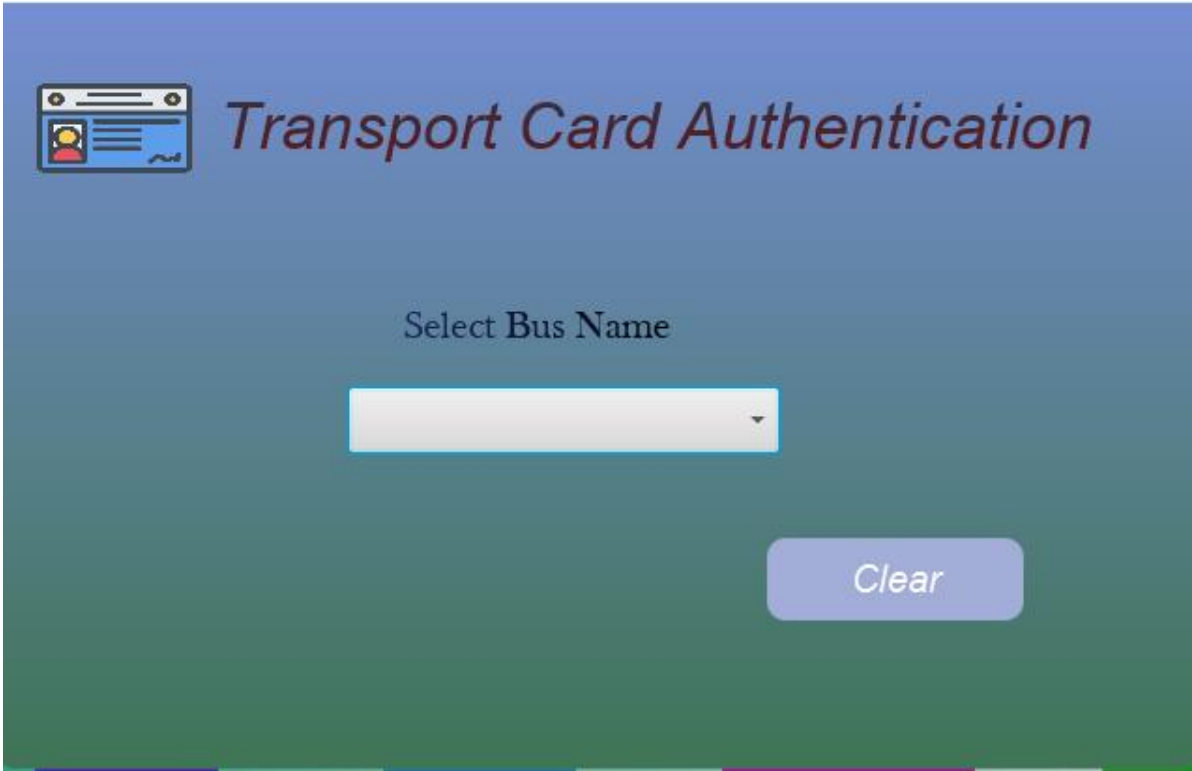
*Bus name/Id*

*Time*  H...  M...  AM


*Rout*

*Assign*

## Card Checker Form



The image shows a web form titled "Transport Card Authentication". It features a blue header with a small icon of a person at a computer. Below the header, there is a label "Select Bus Name" above a white dropdown menu. To the right of the dropdown is a blue button labeled "Clear". The background of the form is a gradient from blue to green.

 *Transport Card Authentication*

Select Bus Name

Clear

## Bus Return Form




The image shows a digital form titled "Return Clearance" with a blue gradient background. In the top left corner, there is a black icon of a clipboard with two checkmarks. The title "Return Clearance" is displayed in a large, dark blue serif font. Below the title, the text "Select Bus" is followed by a white dropdown menu with a blue border and a small downward arrow. At the bottom right, there is a brown rectangular button with the word "Clearance" written in a dark brown, italicized serif font.

 Return Clearance


Select Bus


*Clearance*

## Student Dashboard



# Student Bus Mangement





## Dashboard

[Log out](#)

Select Rout

Bus No

Uttara - Rajlökkhi <> Uttara Metro rail Center <> DSC

Tongi College gate <> DSC

ECB Chatter <> Mirpur <> DSC

Konabari Pukur Par <> Zirabo <> Ashulia Bazar <> DSC

Baipail <> Nabinagar <> C&B <> DSC

Dhamrai Bus Stand <> Nabinagar <> C&B <> DSC

Savar <> C&B <> DSC

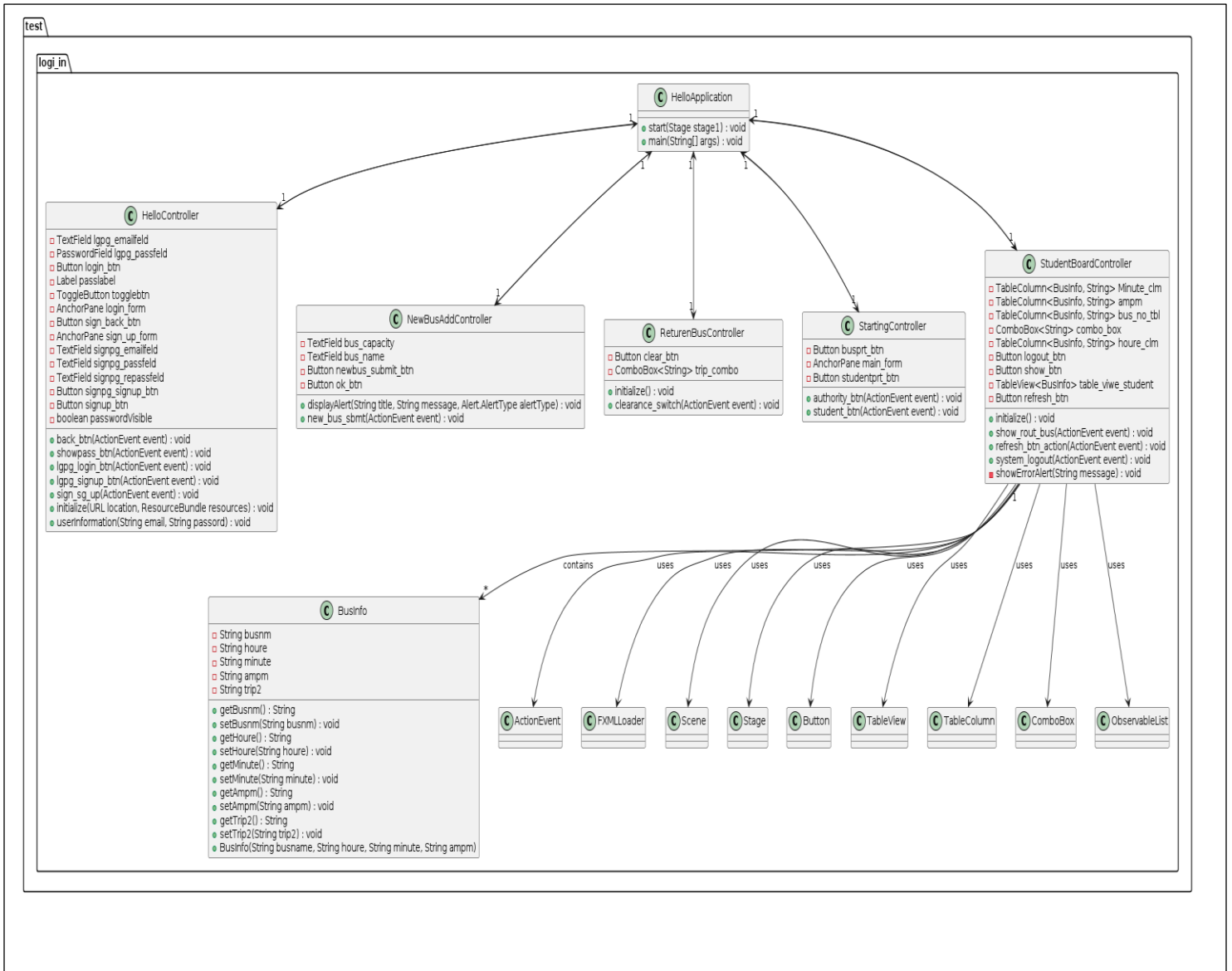
Narayanganj Chasara > Dhanmondi > DSC

Green Model Town <> Mugdha Model Thana <> Malibag <> Rampura <> DSC

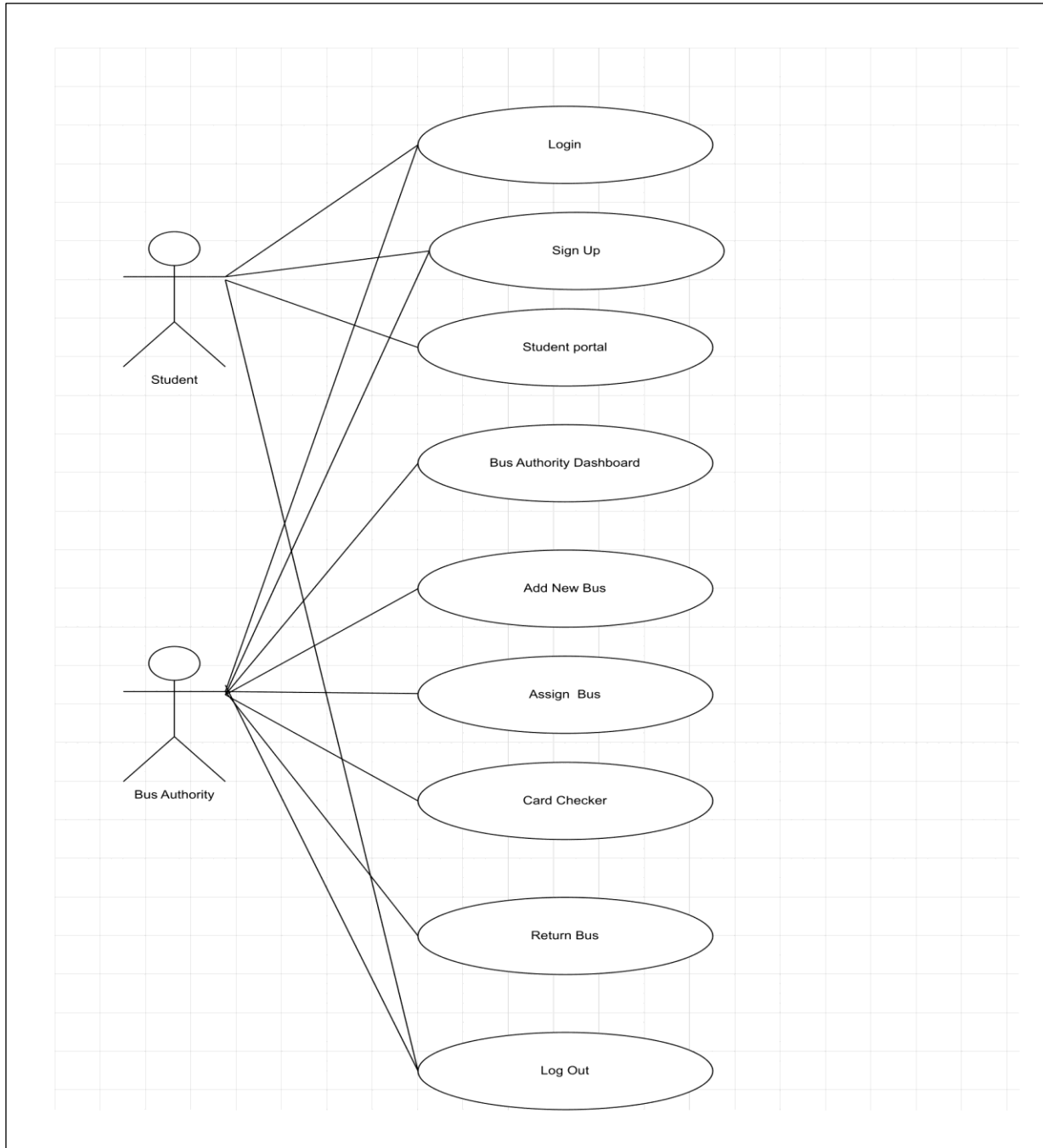
Show



# Class Diagram



## Use Case Diagram



## Activity Diagram

