Course Code   :   CSE 404

Course Title   :   Software Engineering and ISD Laboratory

Project name :   Bus ticket booking management system

Experiment no: 02

Experiment name: **Requirements Specification Analysis of the project**

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Group No   :   02

Group members   :

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Tama Shil

ID - 342

Objective

The purpose of this document is to provide a comprehensive analysis of the requirement analysis specifications for Bus ticket Booking management system. specification should include-

- The context of compile board system and software
- A set of graphical models
- a formal, mathematical model
- A collection of user see scenarios
- A combination of data.

The provided services or function

1) User Registration sep specification
2) User login specification
3) Bus scheduling specification
4) Performance specification
5) Speed and latency requirments

6) Reservation specifications

7) Dependency requirements

8) Availability requirements

9) Maintainability and supportability Requirements

10) Security requirements

11) Accessibility requirements

Lets see some detailed system requirements specifications -

Registration specifications -

- The user must register to use the service.

- The user need to fill important fields like user-id, email, name, number, gender to register.

- The user will have to email authentification to confirm login.
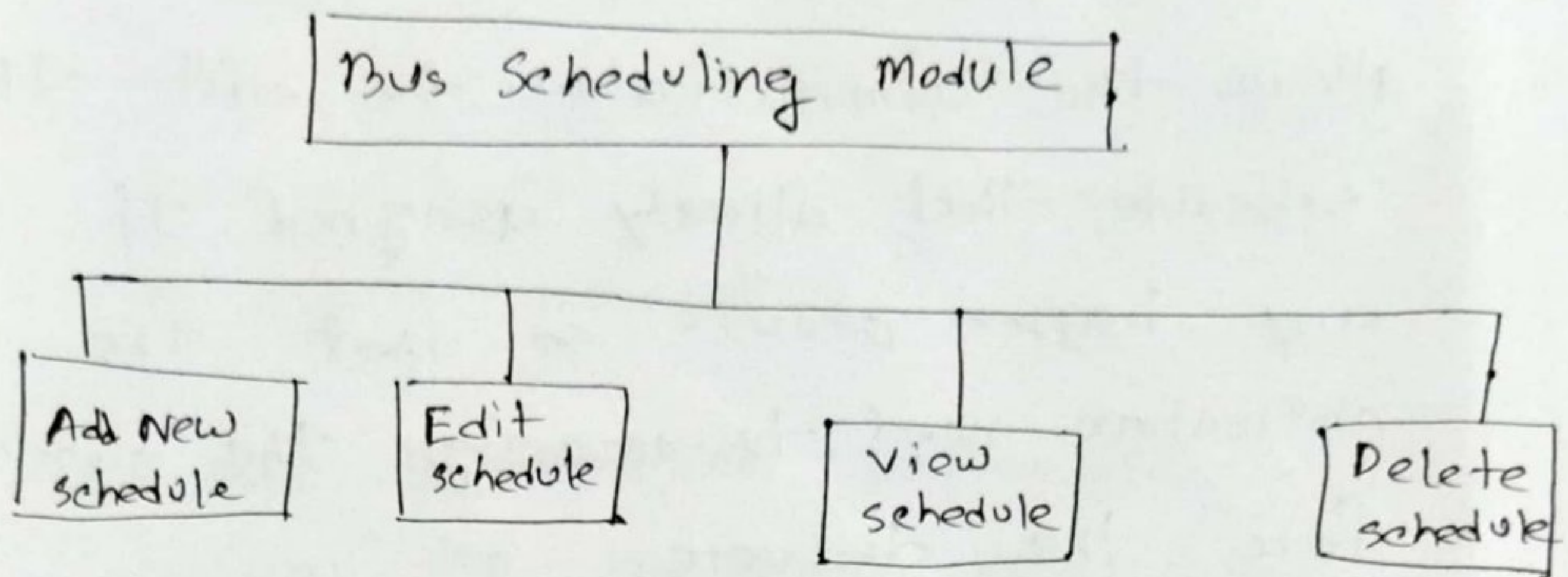
Login Specification

- User will insert right user id or email and password.

- The user information will be verified.

- The user can change info if he forgot password

- User will reenter information in case of wrong information.

Pritam Saha
ID: 375

Functional Requirements:

```
                ┌─────────────────────────────┐
                │  Bus Scheduling Module      │
                └─────────────────────────────┘
                              │
        ┌──────────┬──────────┴──────────┬──────────┐
   ┌─────────┐ ┌─────────┐        ┌─────────┐ ┌─────────┐
   │ Add New │ │ Edit    │        │ View    │ │ Delete  │
   │ Schedule│ │ schedule│        │ schedule│ │ schedule│
   └─────────┘ └─────────┘        └─────────┘ └─────────┘
```

＊ Add New schedule :

The system has a function that allow administrator to add the new schedule and the destination to the driver.

The system will check on the same time, same day and same driver that already have the schedule or not, if yes than the system will not allow the administrator to add the new schedule for the particular driver on the same time, day and place. If not then the administrator can assign the new schedule for the particular driver.

* Edit Schedule Details:

The system has a function that allows the administrator to edit the schedule that already assigned. If have any happen occur so that the administrator need to reassign the schedule for the driver.

* View Schedule Details:

The system has a function that allow the driver to view the schedule that assign by the administrator according to their name so the driver can know when and what time they should driver the bus from one destination to another destination.

* Delete Schedule Details:

The system has a function that allows the administrator to delete a schedule for the particular driver if they feel that the schedule not suitable for this particular driver on that time

Reservation module:

1. Add Reservation

when the member click the next button
then will go to online payment form
to make payment.

2. Add Reservation payment:
when the member click the next
button then will go to online payment
form and the member will key in
all the information in the payment
form then the system will check the
credit card no and the credit
card expired date whether is
valid or not

Name : Prokash Maitra
Roll : 370
Exam Roll : 191372
Project : Bus Ticket Managing System.

2. Operational Specification

2.1 Performance.

2.1.1 Speed and Latency Requirements
- proper Database use.
- Query Result Reaction.

2.1.2 Precision or Accuracy Requirements
- Effective Login
- No signup without email
- All input field should insert exact and valid information to the database

3. Dependency Requirements

3.1 Reliability Requirements

- Only authentic user access to the system.

- New user should Log in.

- Only admin can manage bus details.

3.2 Availibility Requirements

- Available on internet.

- Platform independent.

- Perform quickly on client demand

Name: Mubasher Adnan Jihad

Roll : 374

4. Maintability and Supportability Requirement

4.1 maintenance Requirements

1. Alter framework applications when its need to change on various condition.

2. Databases are used to maintain information in a systematic way.

3. Fixed bugs when the application will be corrupted or crash.

4.2 Supportability Requirements

1. The user will be provided a user manual with full documentation to make the applicaton more effective.

4.3 Security Requirements

1. Since the registration process will handle the admin of the company, no one other than the company's employer can access the system.

2. Administrator cord will lbe default accounts which will be usuable for investigate the issue and notice the authenticate employees activity

4.4 Ease of use Requirement

1. User Interface of the application is user friendly and easy to use for all type of users.

2. The user manual is available for easy access for new users.

4.5 Accessibility Requirement

1. This is a web application so it can be accessed from any internet connected device

2. Only after login, the user will be able to access his/her account.
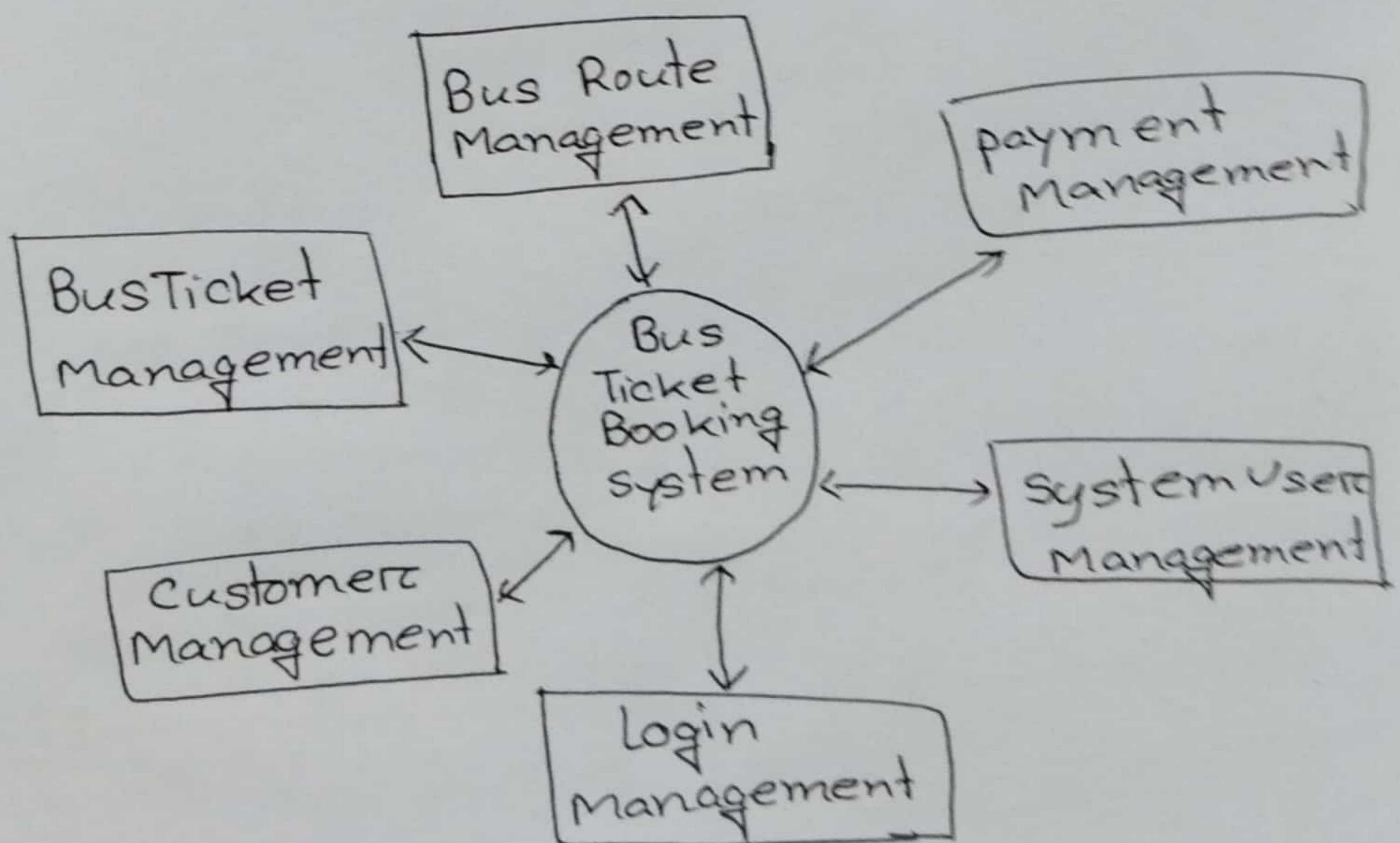
Tama shil
ID: 342
Part: Data flow Diagram

Zero level DataFlow Diagram (O LEVEL DFD):

High level entries and Process flow of
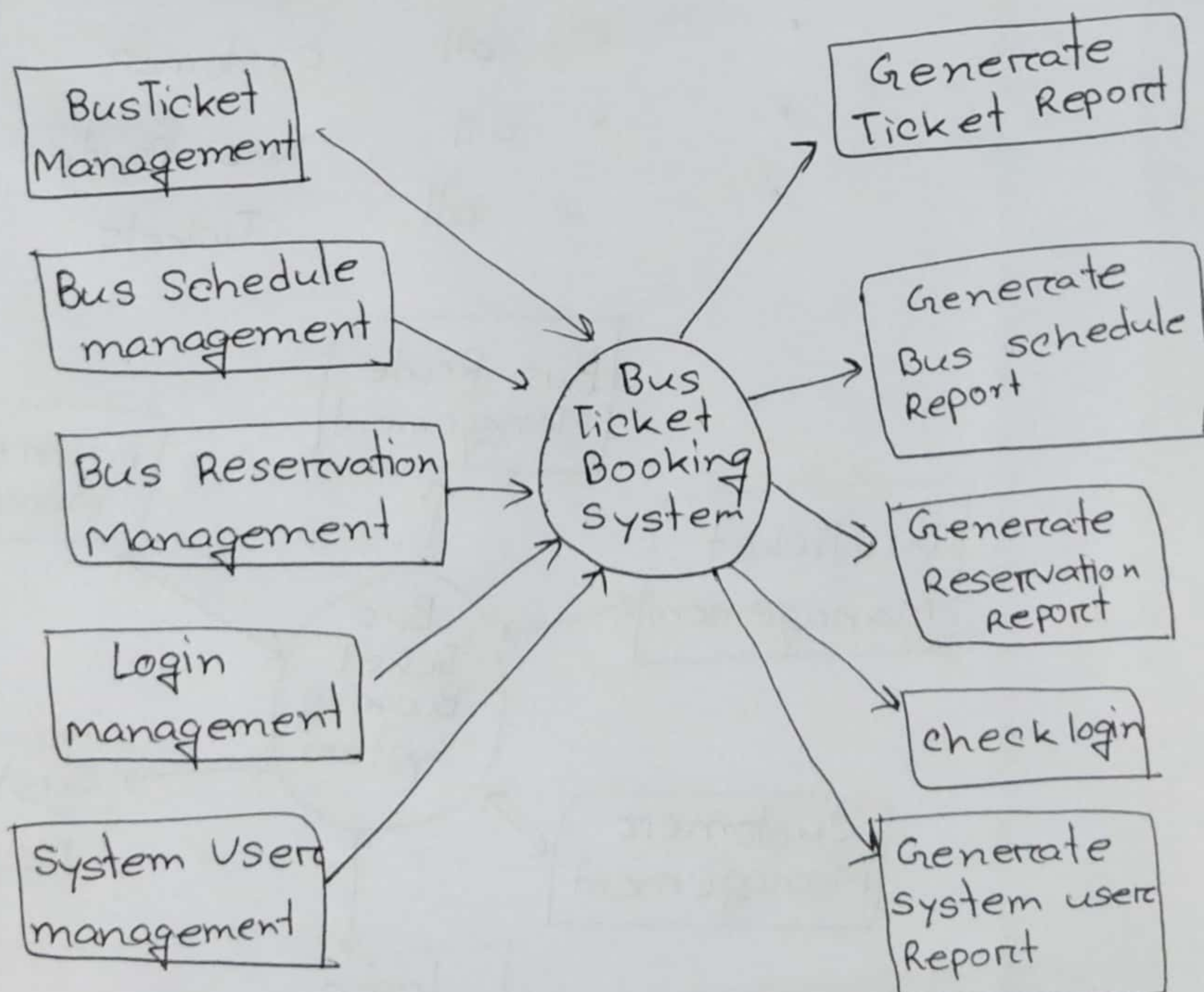Bus ticket Booking System:

- Managing all Bus schedules
- " all Reservations
- " all Tickets
- " all customer
- " all Bus Route
- " all Tickets

First Level DFD:

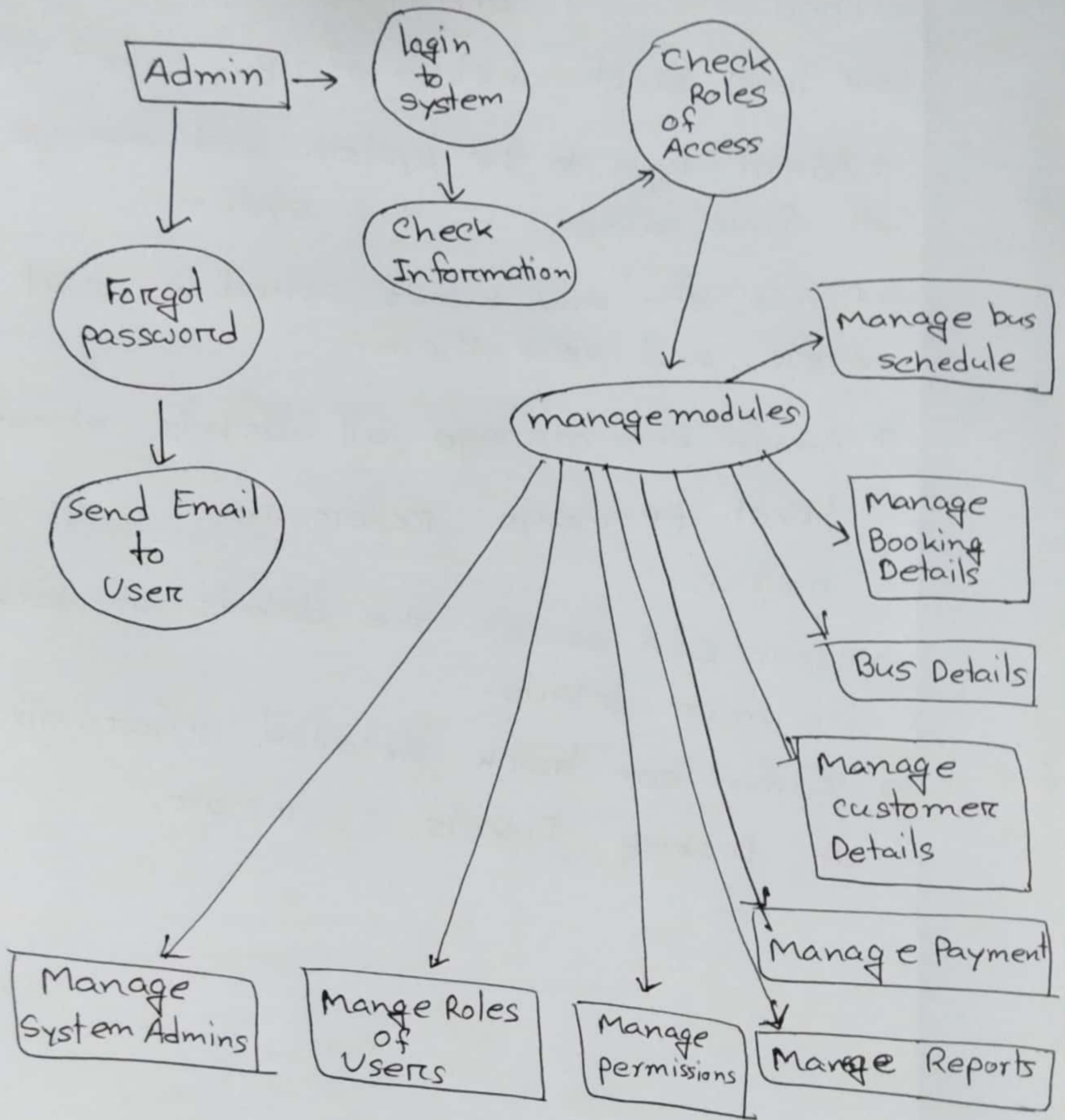Main entries and outputs of First Level DFD (1st level DFD):

→ Processing bus schedules and generating report

→ " bus records and generating report Reservation

→ " Ticket records and generating report.

→ " Customer records and generating report of all tickets.

→ " Processing bus routes and payment records and generating report.

Second level of DFA.

Low level functionalities of Bus ticket System :

→ Admin login to the system and manage all functionalities of Bus system.

→ Admin can add buses, schedules. edit, delete and view them.

→ Admin can manage all details about ticket payments. reservation and confir- mations.

→ Admin can search the details of booking, customer details.

→ Admin can track detailed information of Booking, Tickets, Customer.

Admin → login to system → Check Roles of Access

Admin → Forgot password → Send Email to User

login to system → Check Information → Check Roles of Access

Check Roles of Access → manage modules

manage modules:
- Manage bus schedule
- Manage Booking Details
- Bus Details
- Manage customer Details
- Manage Payment
- Manage Reports
- Manage Permissions
- Mange Roles of Users
- Manage System Admins

Name: Mubasher Adnan Jihad
Roll : 374

Actor: Customer, Admin

Scenario:
- Customer will login into system.
- Customer will Register into system.
- Admin will Login into system.

Exception : Login page not found

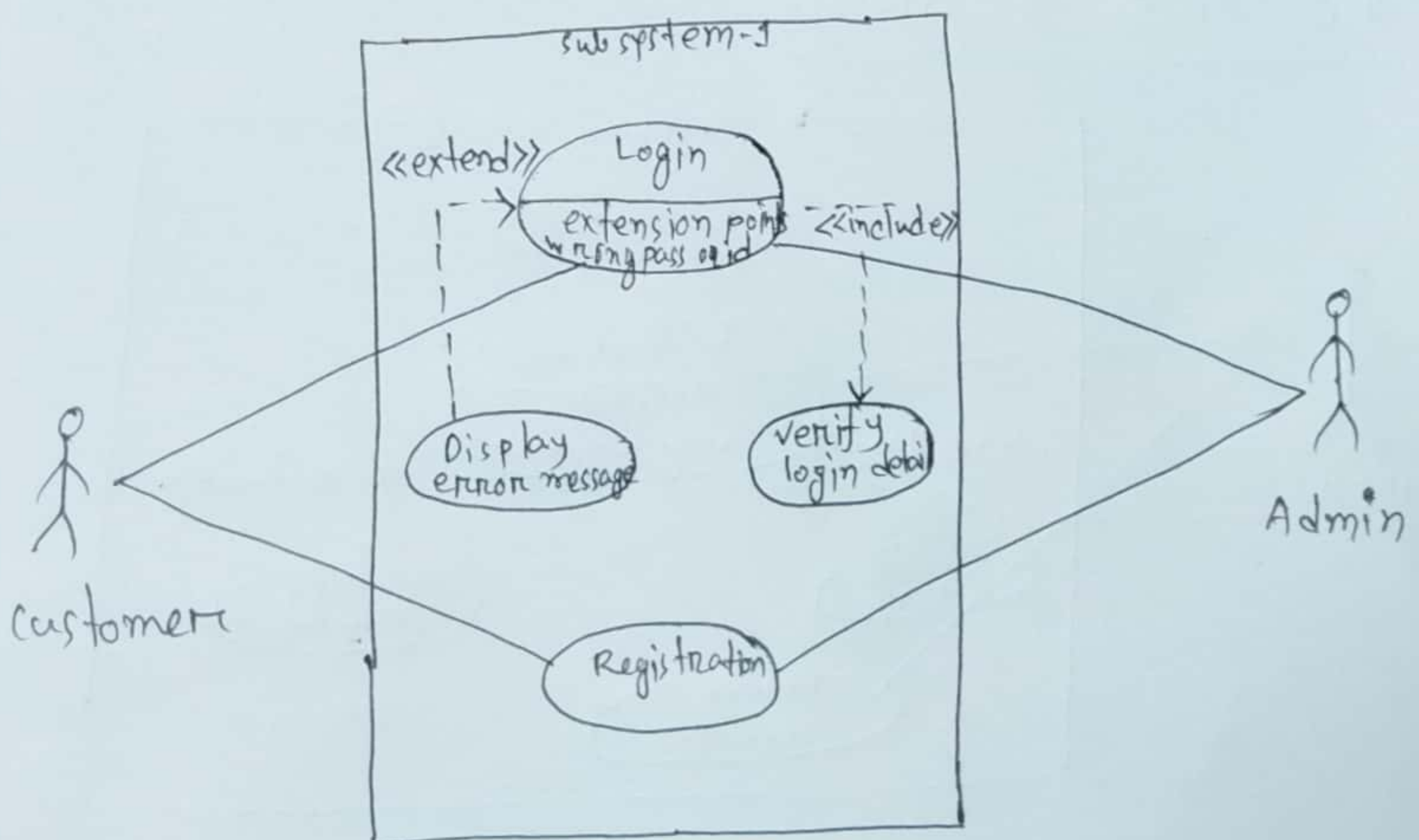Precondition: Login page from web browser

Post condition :
- Successful Login
- Unsuccessful Login
- Page not found

Use case relation:

1. Include
2. Extends

use case diagram :

subsystem-2

Actor: Customer, Admin.

Scenario:
- Customer will do the reservation of buses.
- Both Admin and customer can send message to each other.
- Customer will do payment.

Exception: Wrong customer information

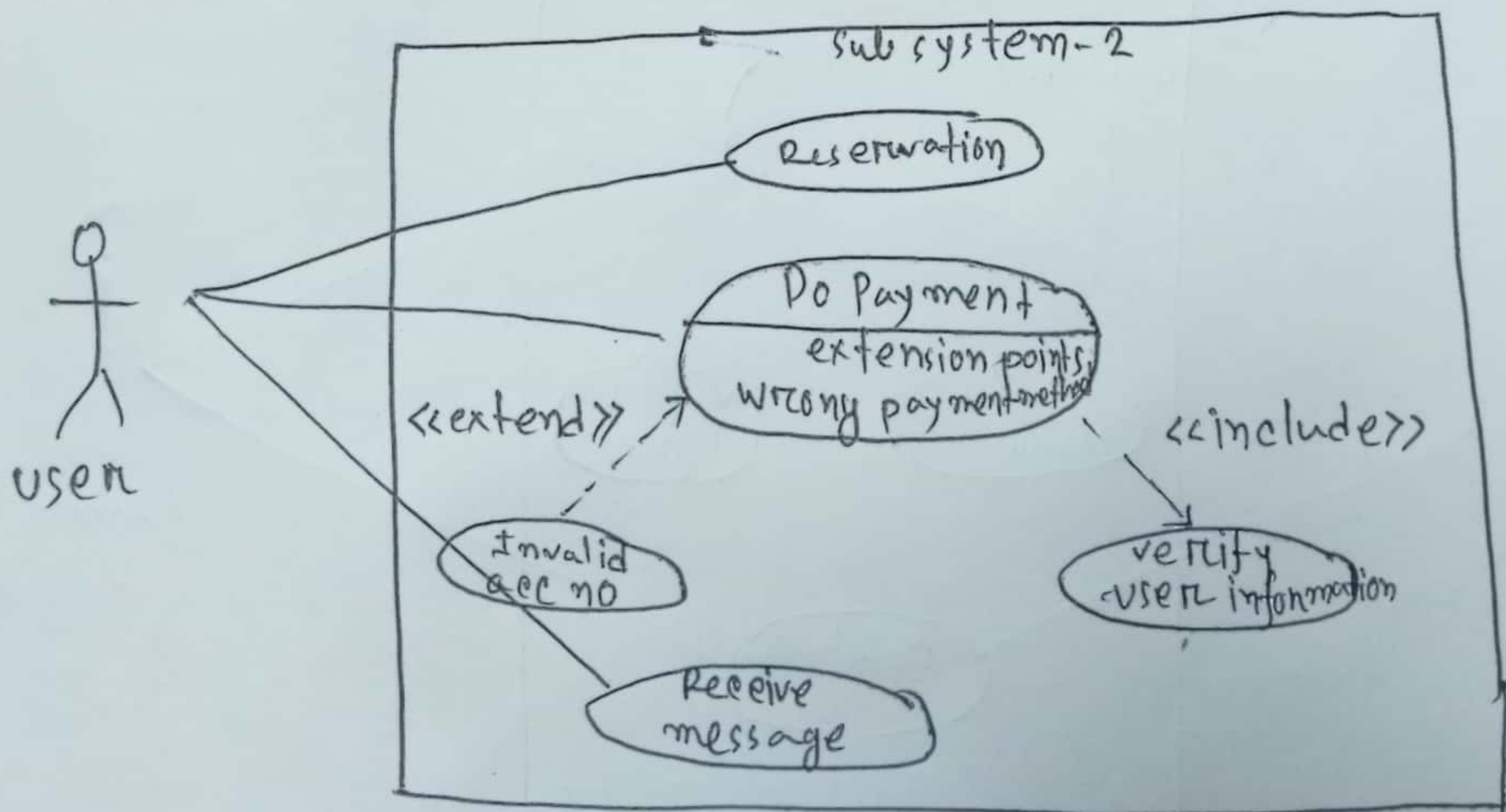Precondition: Only registered customer can reserve ticket.

Post condition: Only registered customer can reserve ticket.
- Customer will get a confirmation notification.

Use case relation:
  1. Include.
  2. Extends.

Use case Diagram:

Sub system-2

Reservation

Do Payment
extension points
Wrong payment method

<<extend>>

<<include>>

Invalid acc no

verify user information

Receive message

user

Name : Pritam Saha
ID : 375

Subsystem - 3

Actor : Admin

Scenario :

• Admin will add bus details.

• Admin will input pickup points of all buses so that customer can select pickup points.

• Admin will input bus route and bus name so that these information can be provided to the customer.

Exception : Web page not found.

Precondition :

• Pickup points must be set according to pickup point and time.

Postcondition:

• Admin can provide one pickup time for one bus.

• Admin can provide one bus name and route at a same time.

Use case Relation:

1. Include relation in pickup point about selecting unique time for one bus at a time.

2. Extend relation for notifying about the collison of bus.

Use case diagram:

Sub System - 3