Software Requirements Specification

For

Government Services

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1. Preface

1.1   Document Purpose

The purpose of this document is to provide a detailed and complete specification of Government Services for the Faculty of Engineering, Helwan University.

The document will provide an overview of the system in the first section; then each part will be explained in detail in the second and third sections.

1.2   Target Users

This document is composed by system engineers based on the requirements gathered from Egyptian People.

This document is intended to be approved by the Dean and the Vice Dean for Education and Student Affairs of the Faculty of Engineering, Helwan University and the staff working on developing the system.

1.3   Revision History

Version	Description	Date
0.1	Initial	22-10-2023
0.2		10-12-2023
0.3		26-12-2023

2. Introduction

2.1   Purpose

This application aims to Facilitating life for citizens and making them more comfortable by making government services available online, as citizens do not need to go to government services and stand in large queues, which leads to a waste of time and the spread of diseases so we solve these problems. We are now providing effective services to satisfy the citizen and his comfort. These services are:
1. traffic service system.
2. Ration Card System.
3. Record civilian System.
4. Health System.
5. Education System.

2.2   Scope

Government Services is a software for managing citizens data. It basically automates the work Government Services. The software will be a part of a bigger system that will manage citizens Government Services.
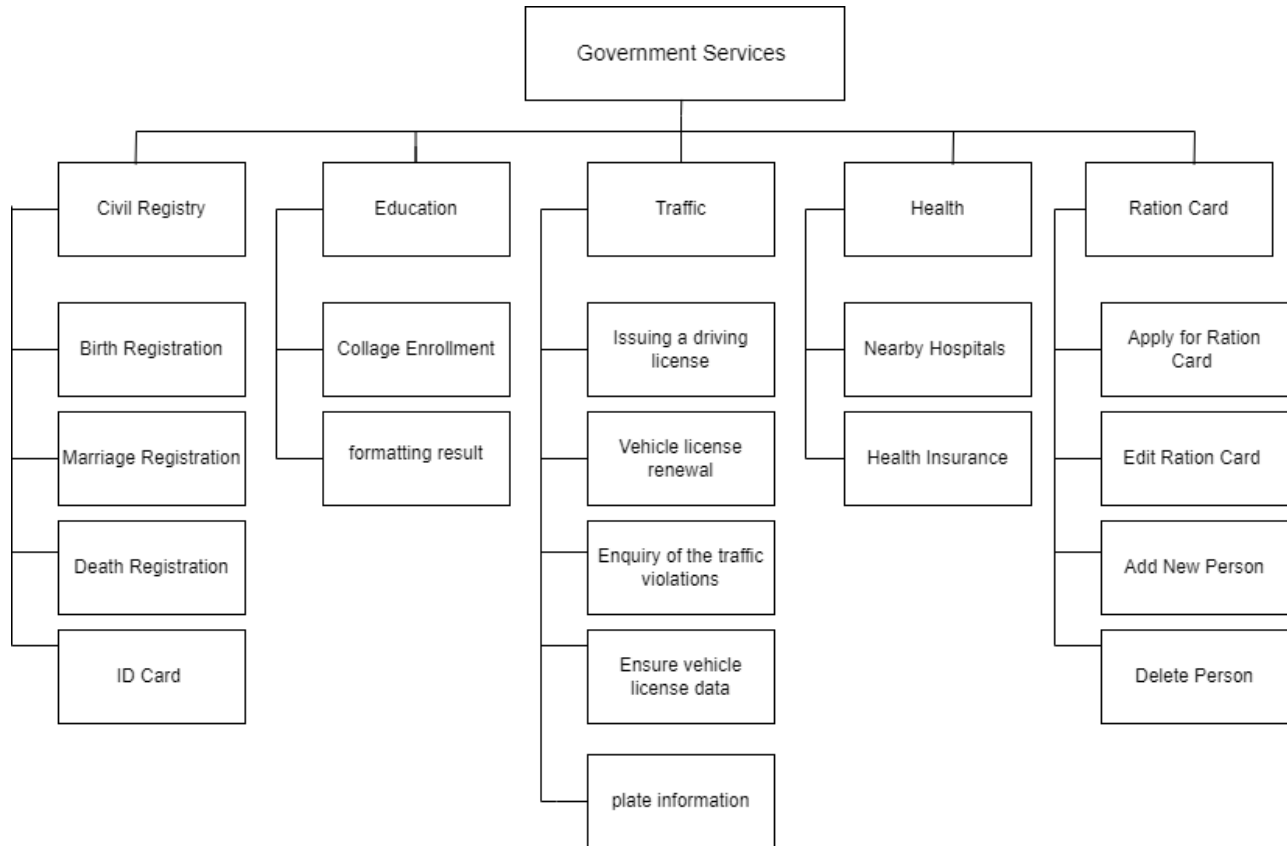
Figure 1:-System Functions hierarchy

2.3   Overview

The Government Services Portal Project is an ambitious and transformative initiative aimed at modernizing the delivery of essential government services to citizens. This project envisions the development of Desktop Application, simplify, and enhance the accessibility of a wide range of government services, including civil registry, education, traffic, health, and ration card services.

3.   Glossary

3.1   Acronyms, definitions, and abbreviations.

- SRS: Software Requirements Specification
- UI: User Interface

4.   System Users

4.1   System stakeholders

1.System Engineer
  1.1. Responsible for requirements gathering
  1.2. Responsible for development
  1.3. Responsible for deployment and support
2. Government Agencies:
- Government agencies at the national, state, and local levels are primary stakeholders. They are responsible for delivering government services and will use the portal to streamline service delivery and interact with citizens and businesses.

3. Citizens:
- Citizens are the ultimate beneficiaries of the project. They represent a diverse group of individuals who seek access to government services, including birth registrations, marriage certificates, driver's licenses, healthcare appointments, and more.

4. Government Administrators:
- Government administrators, including civil registry officers, education department officials, traffic police, and health department personnel, are key stakeholders. They will manage the services provided through the portal and interact with users.

6. Software and Technology Partners:
- Software and technology partners providing the underlying infrastructure, security solutions, and cloud services are stakeholders. They are instrumental in the technical implementation of the project.

4.2   Users' objectives

1.System Engineer
- Gain Experience in software engineering and development
2. Government Agencies:
- reducing administrative overhead, paperwork, and the need for physical infrastructure, ultimately leading to cost savings.
3. Citizens:
- Citizens enjoy easy and convenient access to government services, reducing the time and effort required for service requests.
- The platform empowers citizens to independently manage their information and access government services.

4. Government Administrators:
- Government administrators can manage services more efficiently and respond to user requests promptly.
- Access to digital records simplifies data management and retrieval.

6. Software and Technology Partners:
- Opportunities for Collaboration: Software and technology partners have opportunities to provide essential infrastructure, security solutions, and technology services for a high-profile government project.

7.Administrator:
- Ensure Citizens data security

5. User Requirements definitions

5.1 System Functions
1. Birth Registration
2. Marriage Registration
3. Death certificate
4. Collage Enrollment
5. See formatting result
6. Issuing a new vehicle license
7. Ensure and view the vehicle license data
8. Updating the entered license data
9. Show the plates of the vehicle by entering driver id
10. Show the violation by entering the id
11. Show Nearby Hospitals
12. Get Health Insurance
13. Apply for Ration Card
14. Edit Ration Card
15. Add New Person
16. Delete Person

5.2 Constraints
- Entered Id should be unique and exist.
- Entered Id card should be unique and exist.
- Id is unique and not repeated
- Plate id is unique and not repeated
- Marriage number is unique and not repeated

6. System Architecture
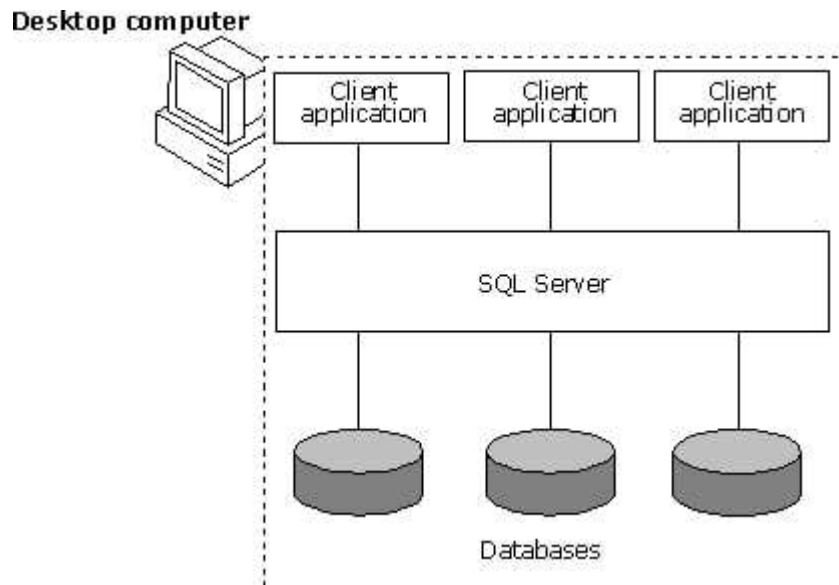
Figure 2 :System Architecture

7. System Functional requirements

7.1 Civil Registry

7.1.1 Register Birth Registration

Citizens shall be able to register the birth of a child online.

Users must provide the child's name, date of birth, place of birth, and parents' information.

The system should assign a unique registration number.

7.1.2 Register Marriage Registration

Users shall be able to submit marriage registration requests.

Required details include the IDs of the spouses, date of marriage.

7.1.3 Register Death Registration

Users can report a death and request a death certificate.

The system shall collect information on the deceased person, including ID, date of death.

7.2 Education

7.2.1 apply to collage

Parents or guardians can enroll their children in government collage.

The system shall collect student information, including name, ID, Sitting number, High School Name, Desires.

7.2.2 view result of appling

Students can See the collage whoever accepts it.

Users must provide their ID.

7.3 Traffic

7.3.1 Issuing a new vehicle license

Citizen can apply for a new vehicle license online by entre (ID, Name, phone number 1 , phone number 2,Address, slight_rate, diseases) to the system for making a new vehicle license.

7.3.2 Ensure the vehicle license data

 The citizen can view and ensure the entered data to the system by entering his id.

7.3.3Updating the entered license data

Citizen can update information in his vehicle license online by entre (ID, phone number 1 , phone number 2, slight_rate) and this give him the opportunity to change the data that he wants to change

7.3.4 Show the plates of the vehicle

The citizen can view his plate number and letters by entering his id

7.3.5 Show the violation

The citizen can view his violations by entering the id and make him know his car violations

7.4 Health

7.4.1 Show Nearby Hospitals

Citizens can see hospitals around him.

7.4.2 register Health Insurance

Citizens can obtain health insurance.

7.5 Ration Card

7.5.1 Apply for Ration Card

Citizens can apply for a ration card to access subsidized food items.

Users must provide ID, name, phone number, city, region, street, status birthday date.

7.5.2 Edit Ration Card

Enable citizen to Edit on his Created card (change

phone, address, any information expect id, id_card).

7.5.3 Add New Person

Enable citizen to Add new Person to it's Card by add

his name and enter it's private id_card number.

7.5.4 Delete Person

Enable citizen to Delete Person from Card by entering

the name he wants to delete it and id_card which this

person on it.

8. Interface requirements

8.1 User interfaces:

Figure 3 : Main Page

Figure 4 :Ration Card
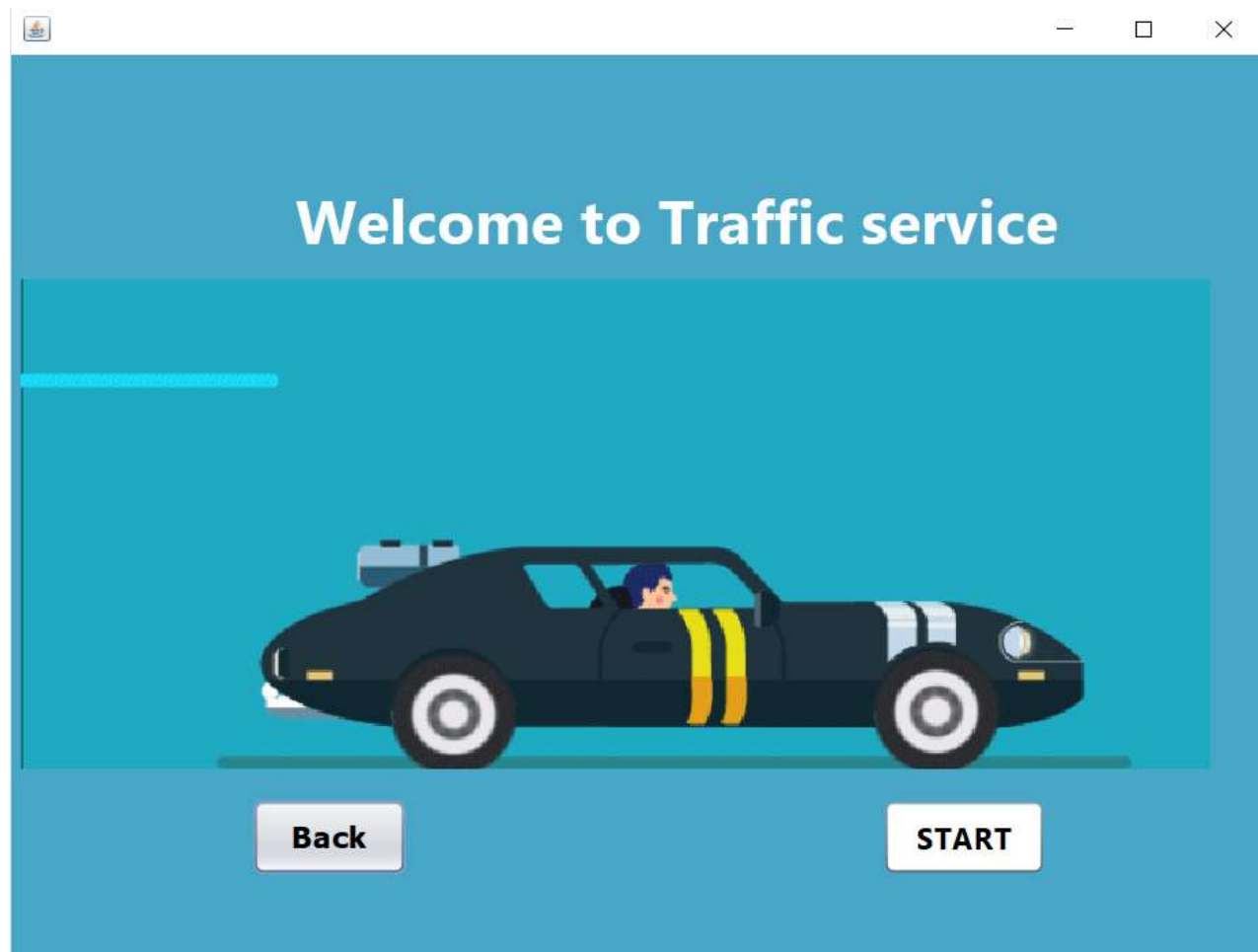
Figure 5 start traffic

Figure 6 : Traffic

Figure 7 :Record Civilian
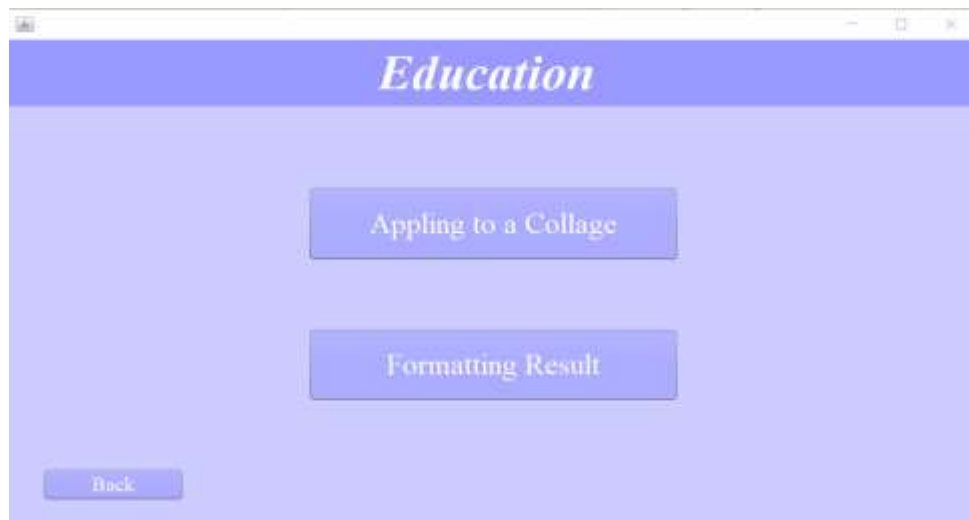
Figure 8:Education

Figure 9 :Health
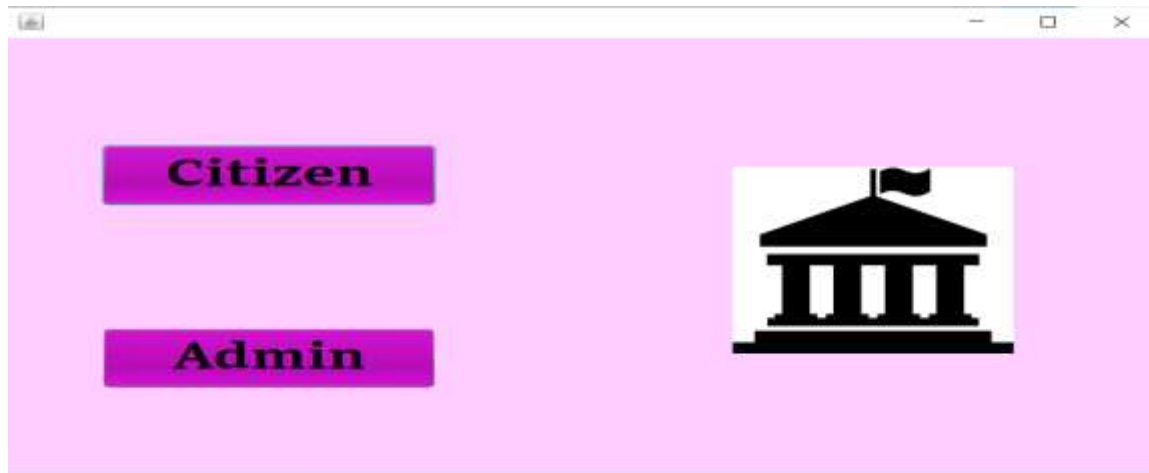
Figure 9: Identifier

Figure 10: Admin
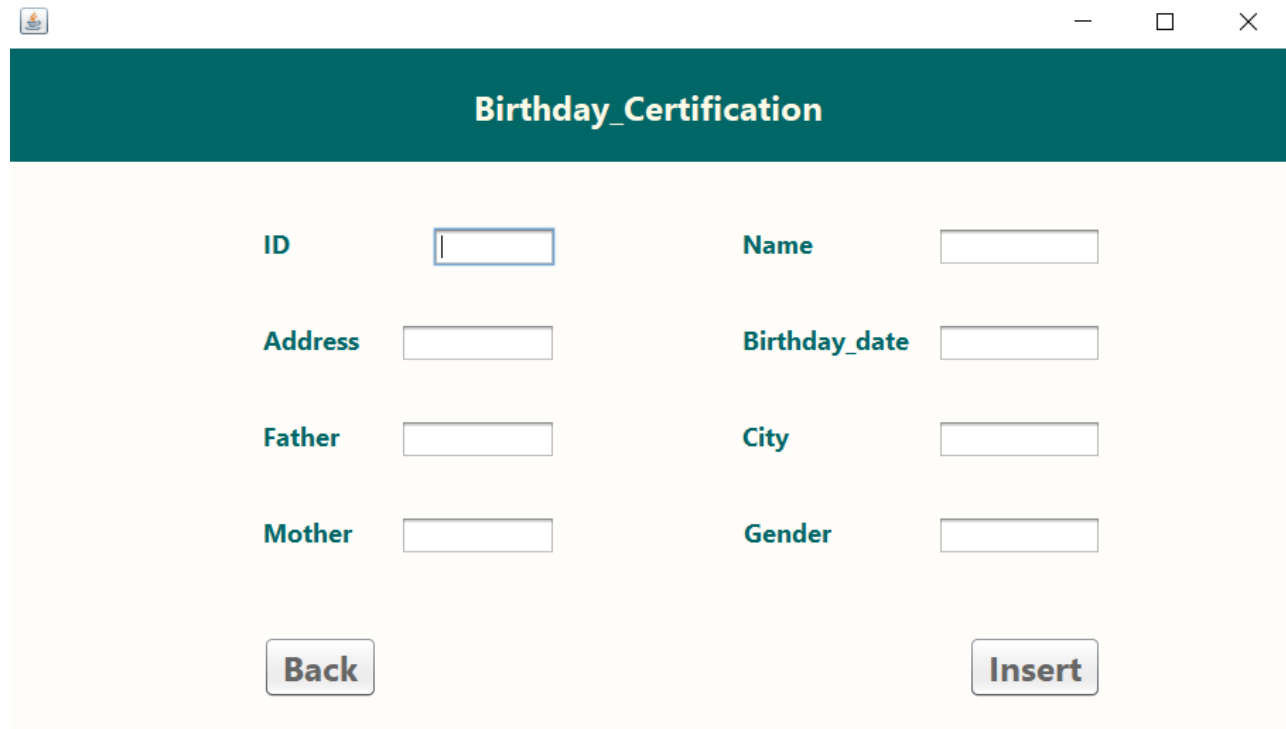
Figure 11: Death_Certificate

Figure 12: ID_Card

Figure 13: Birthday_Certification

Figure 14: Marriage Contract

Figure 14: Create New Ration Card

Figure 15: Edit in Ration Card

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Figure 16: Add Person to Ration card

Figure 17: Delete person from ration card

Figure 18: Appling to collage

Figure 19: Formatting Result

Figure 20: Nearby Hospitals
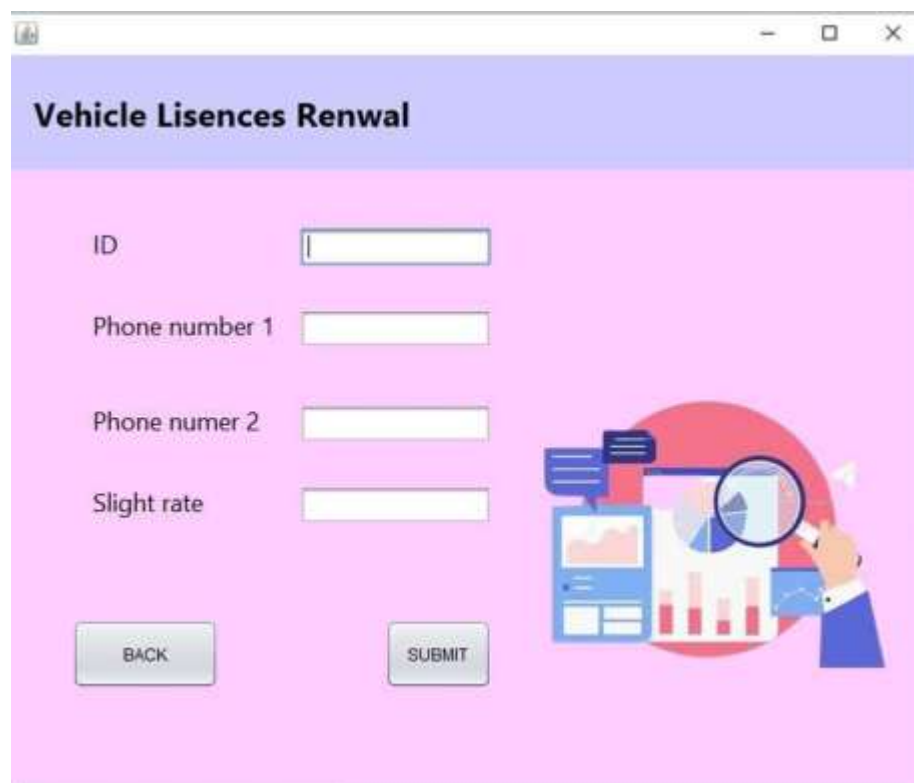
Figure 21: Health Insurance

Figure 22: Issuing a driving license

Figure 23: Vehicle Lisences Renwal

Figure 24: Traffic Violations
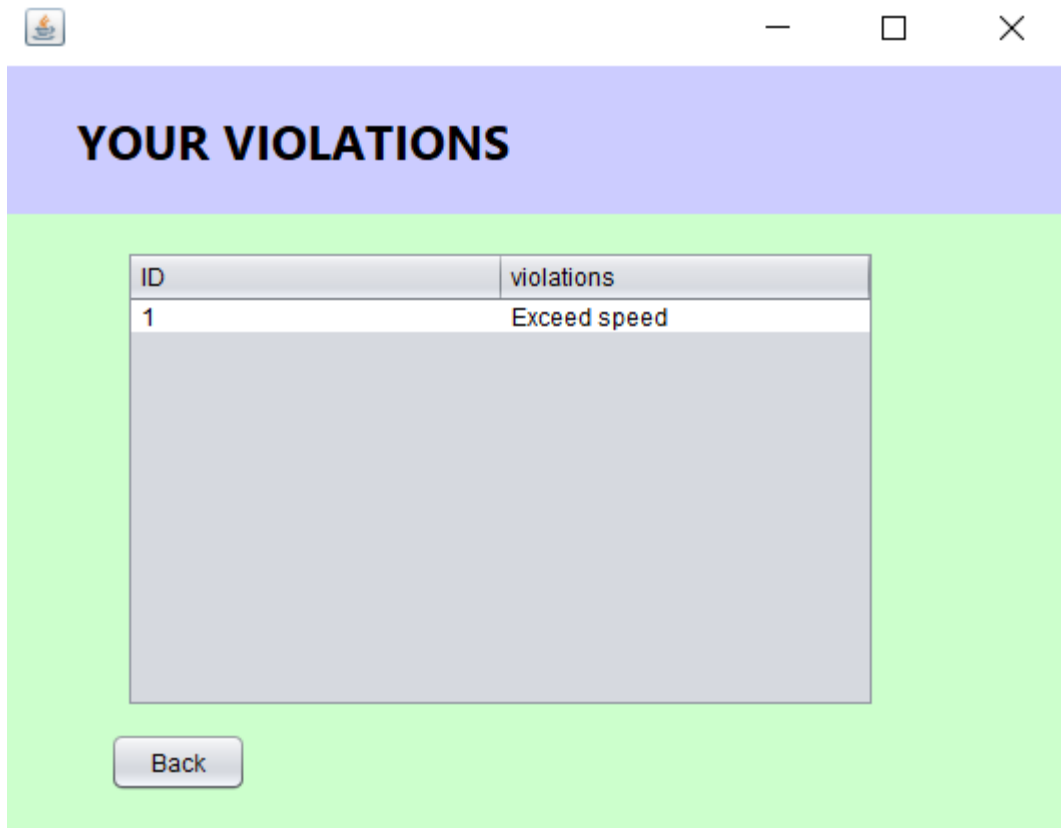
Figure 25: Your Violations
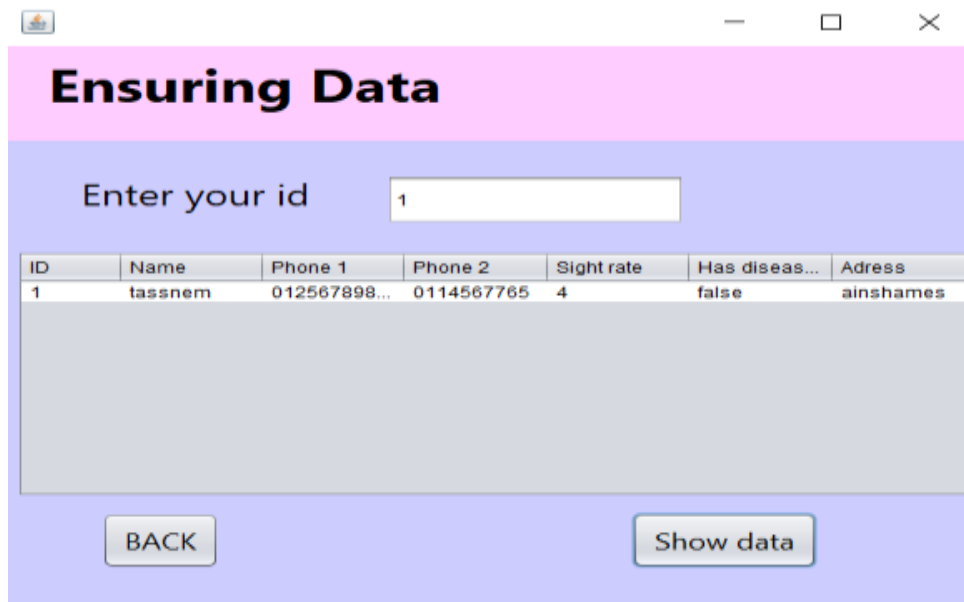
Figure 26: Ensuring data

Figure 27: Your plate
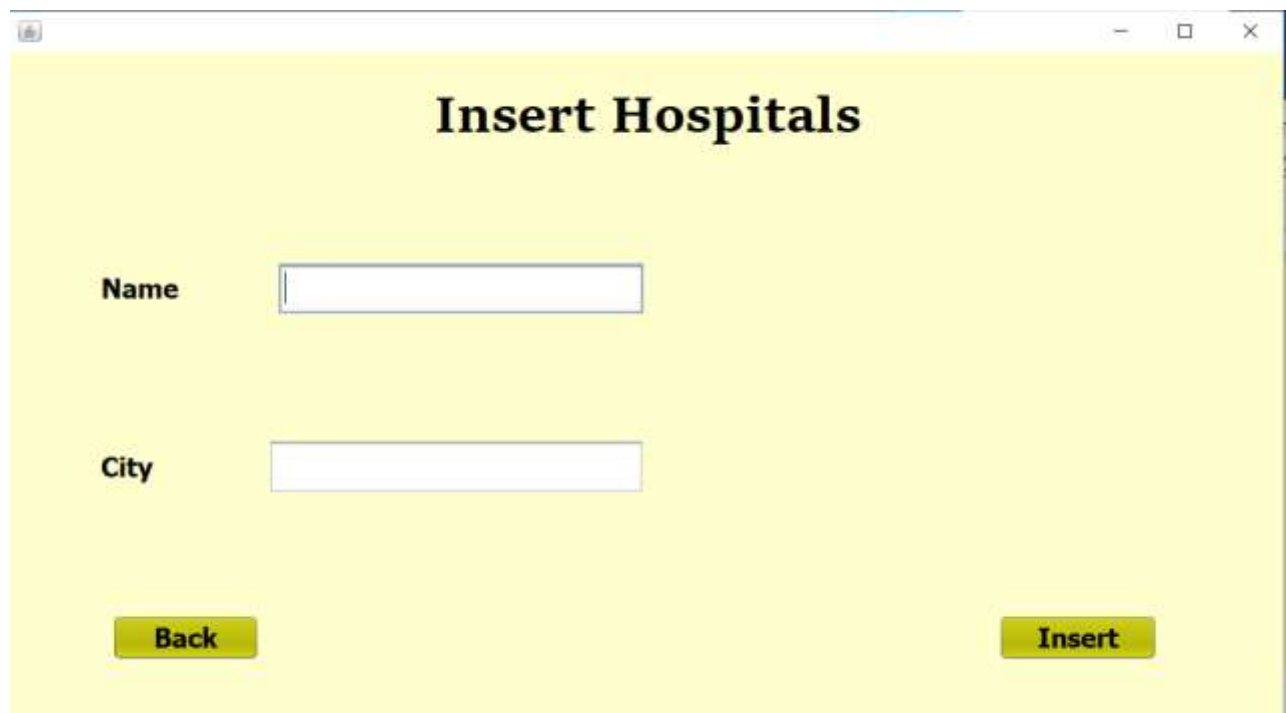
Figure 28: Insert Collage

Figure 29: Insert Hospitals

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8.2   Software Interfaces

- Database using SQL server management using connection string
- The connection string is used to connect from the java application to the specified database server. We need database hostname, database name, database username, database user password, and database port number to connect the database server using the connection string.

8.3   Communications Interfaces

- Application-Database communication will be through Local Host Communication on port 1433

9.Non-functional requirements

9.1 Availability:

The system should be available during working hours.

9.2 Security:

No one can access the whole date base.

9.3 Data Accuracy:

Accurate and reliable data management benefits businesses that rely on government records.

9.4 Usability:

Citizens enjoy easy and convenient access to government services, reducing the time and effort required for service requests.
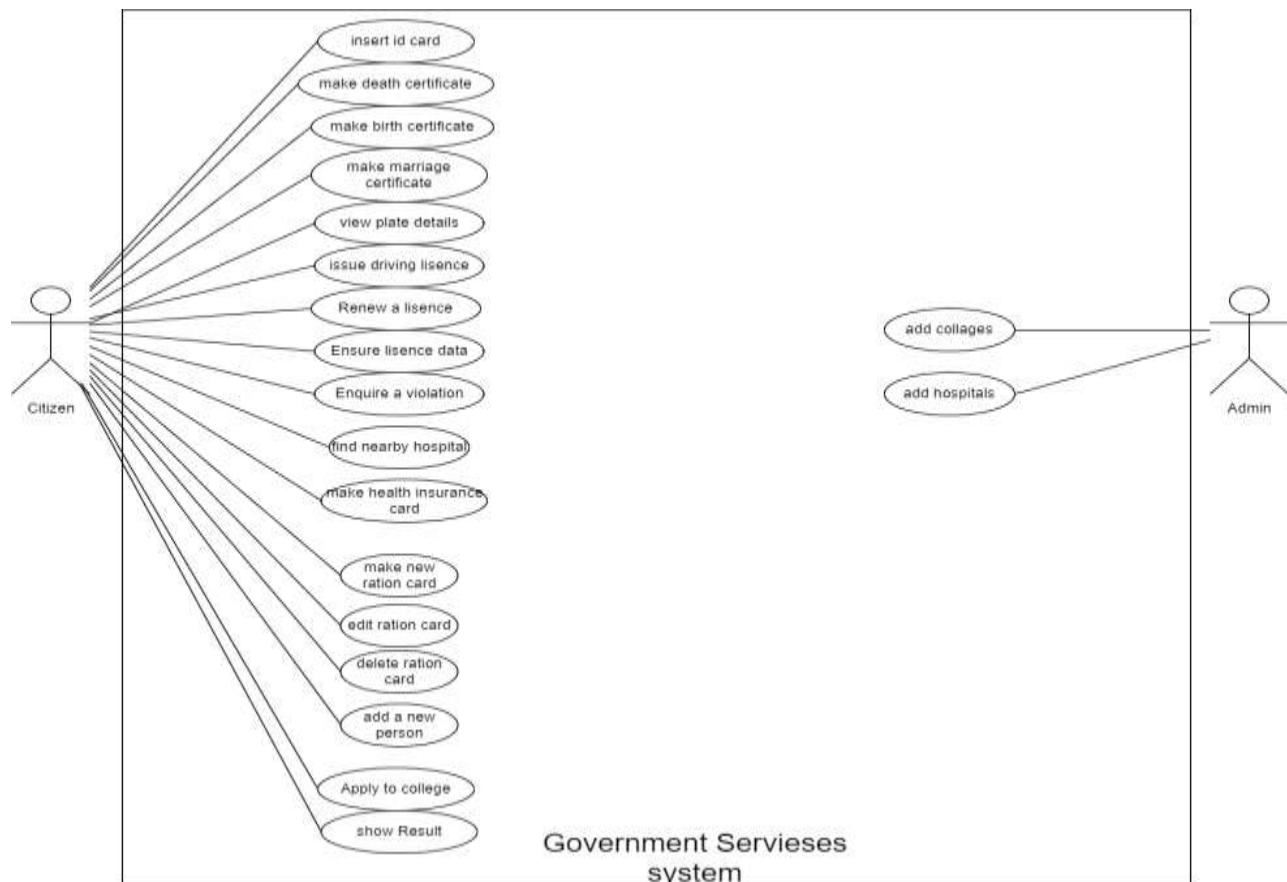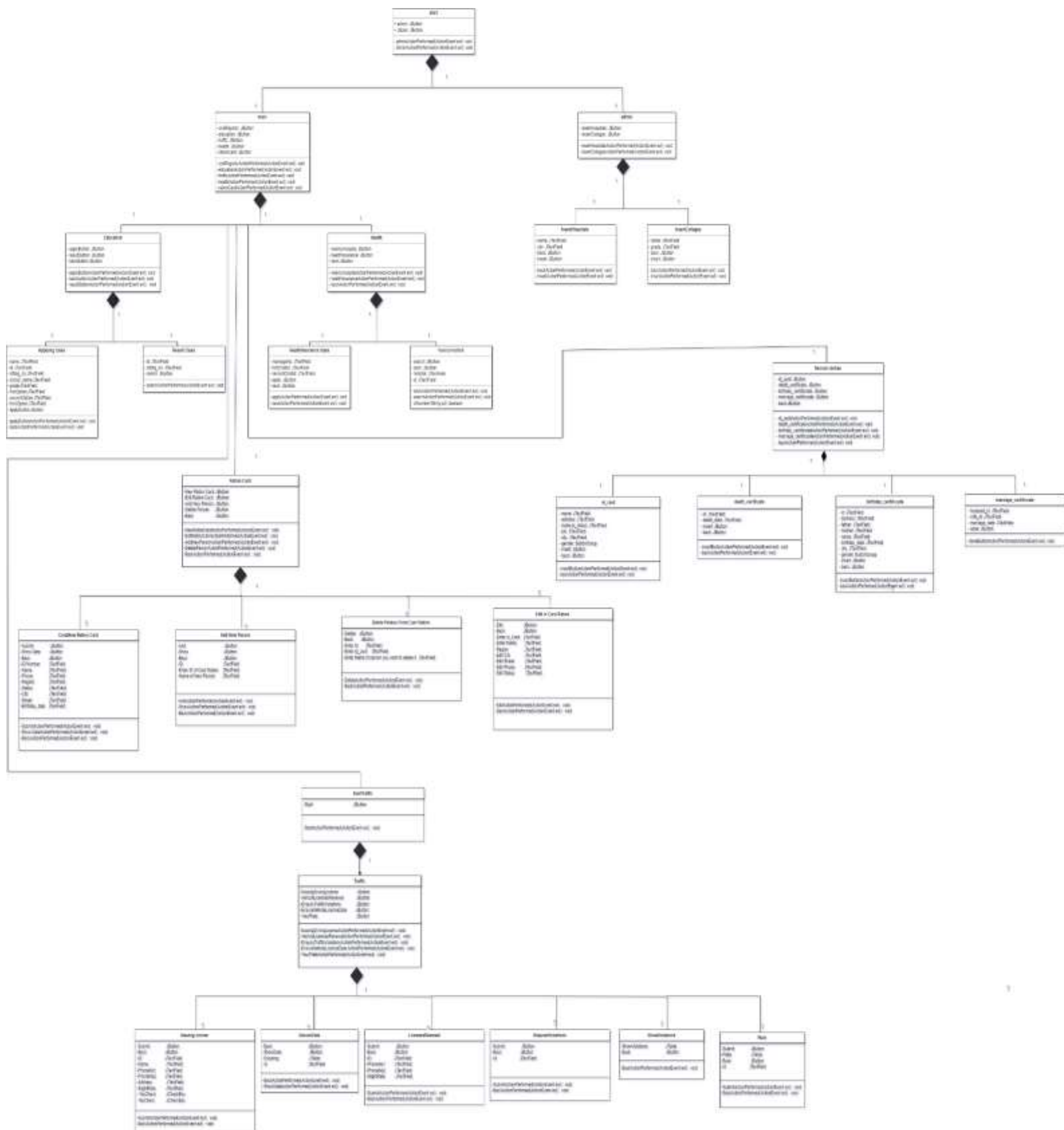
10.System Models and Diagrams

Figure 30 :Use Case Diagram

Figure 31 :Class Diagram(Overall)
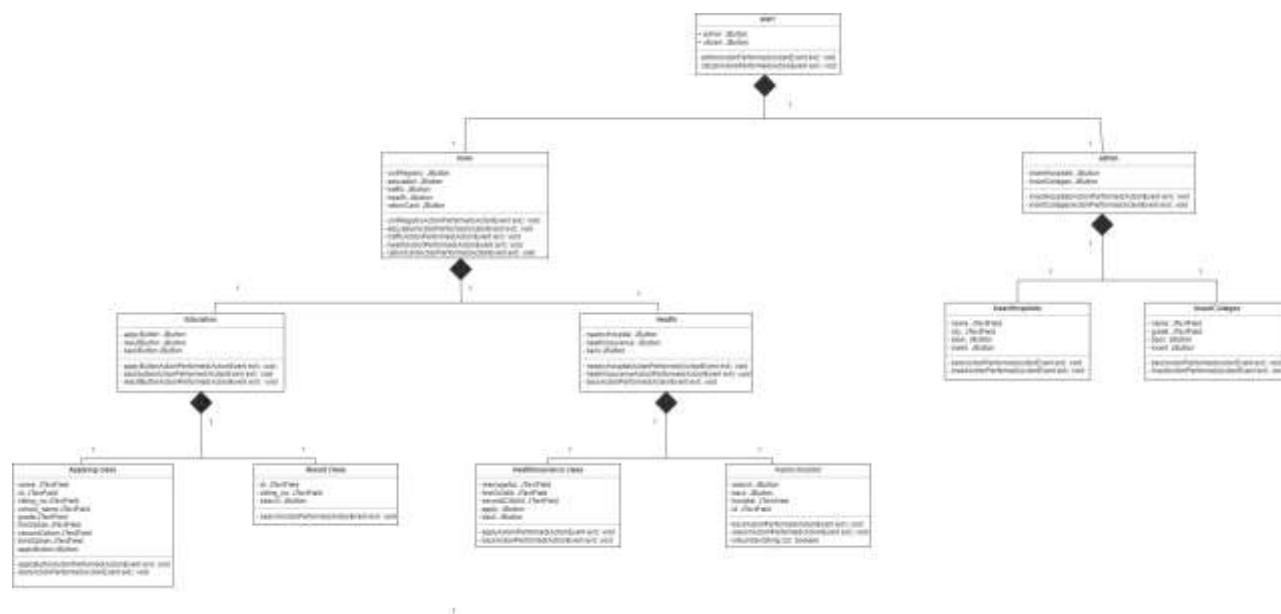
Figure 32:Class Diagram (Main , Admin , Health and Edu.)
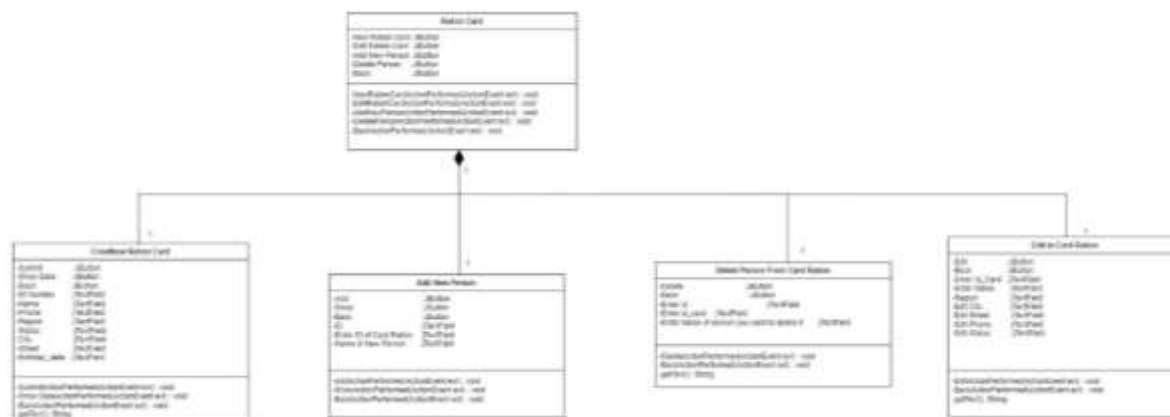
Figure 33:Class Diagram (RationCard)
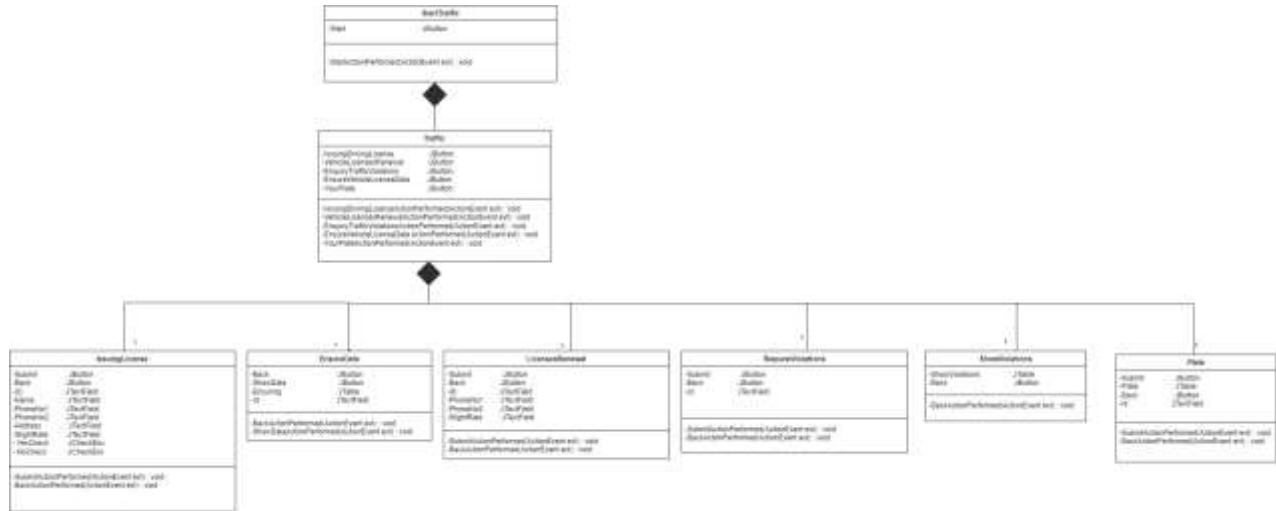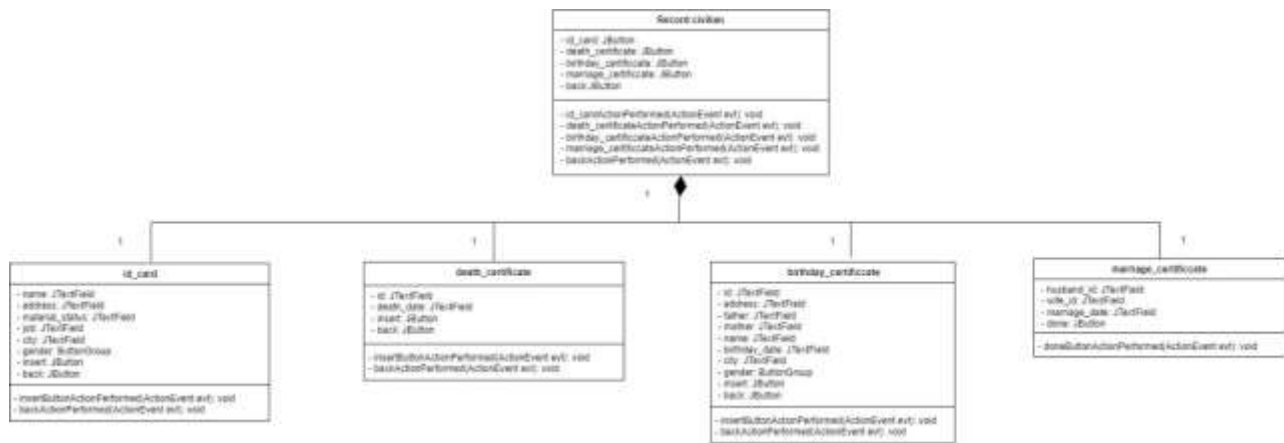
Figure 34:Class Diagram (Traffic)

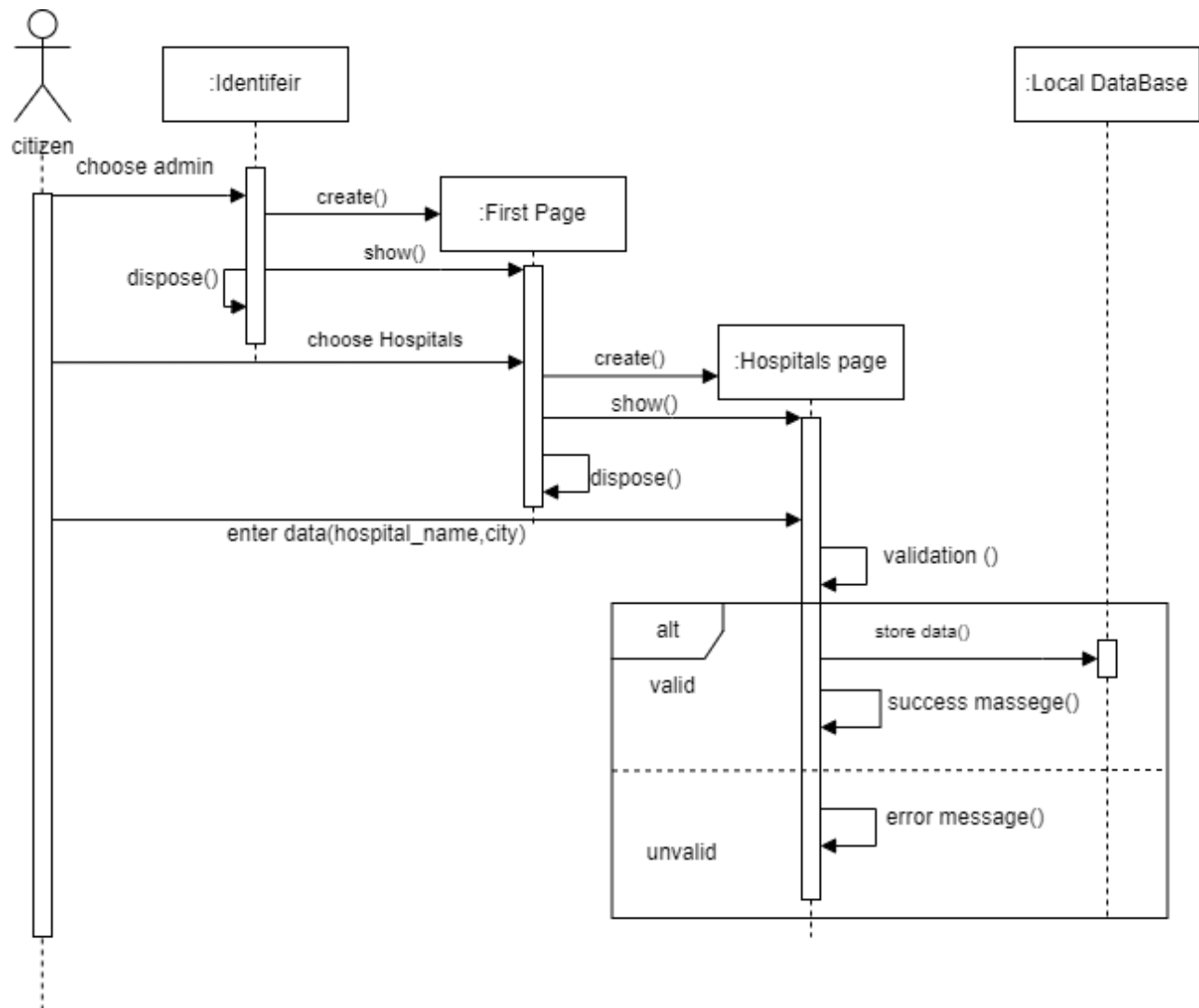*Figure 35:Class Diagram (Record Civilian)*

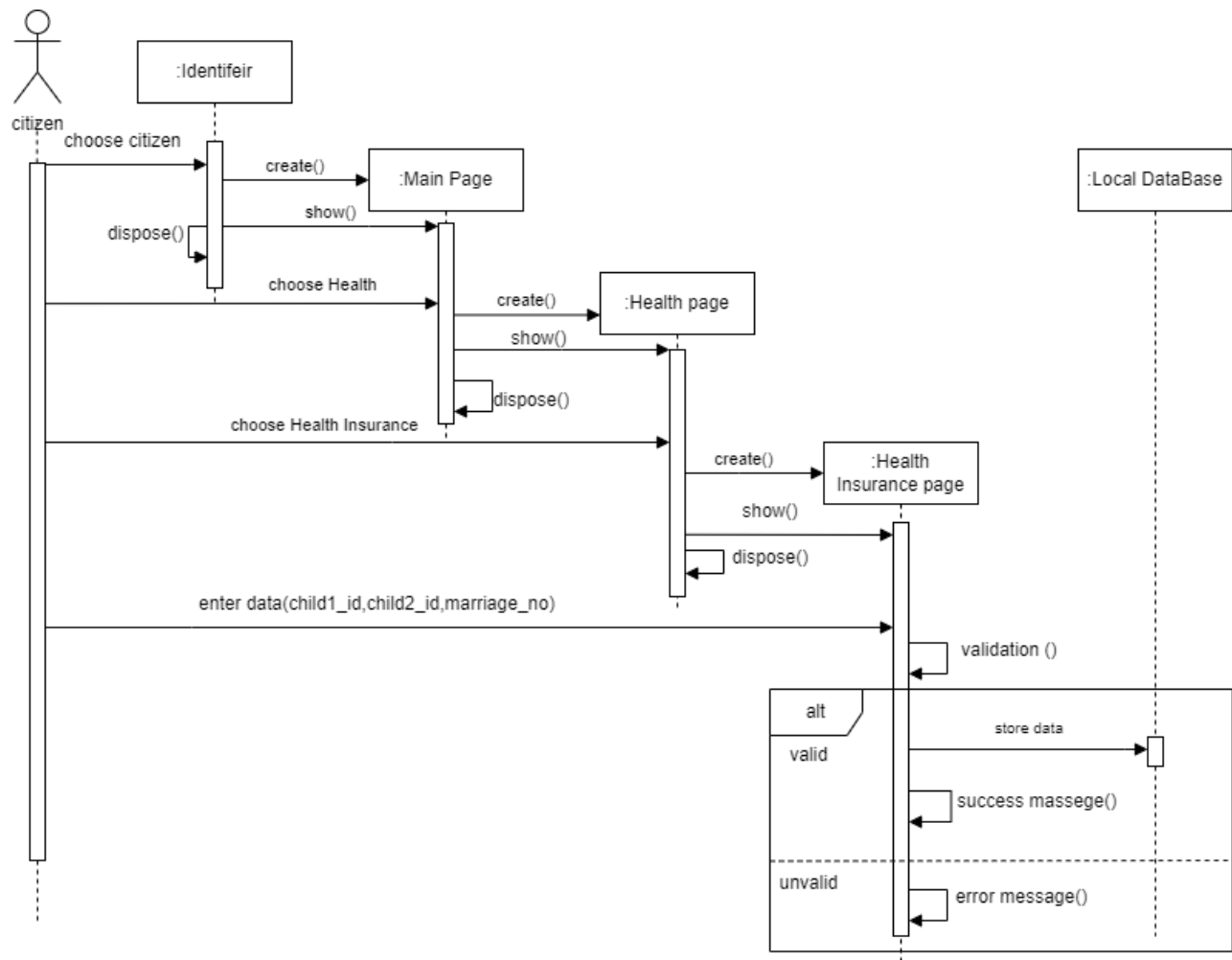*Figure 36 :Sequence Diagram (Insert Hospitals) (Admin)*
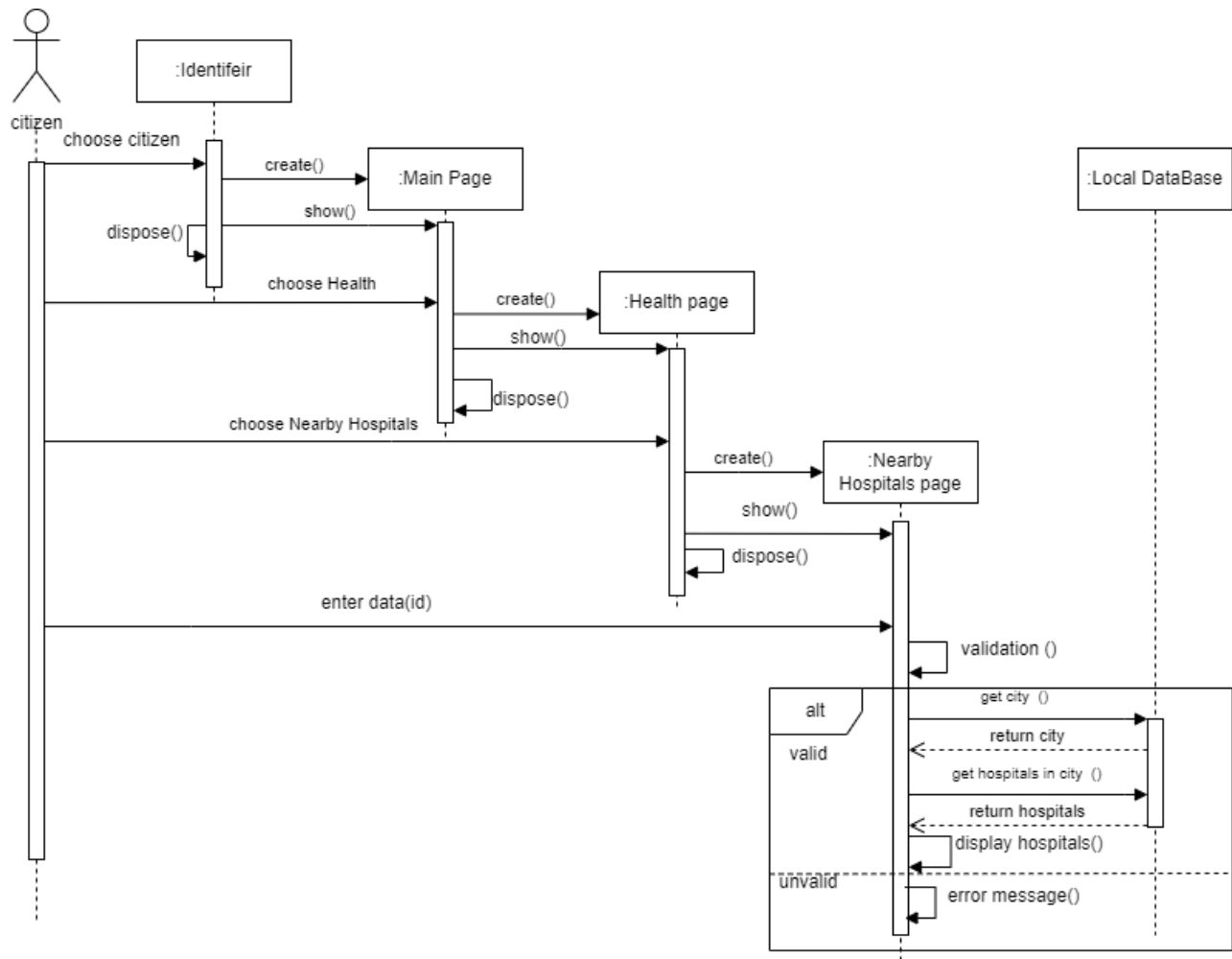
Figure 37 :Sequence Diagram (Health Insurance)

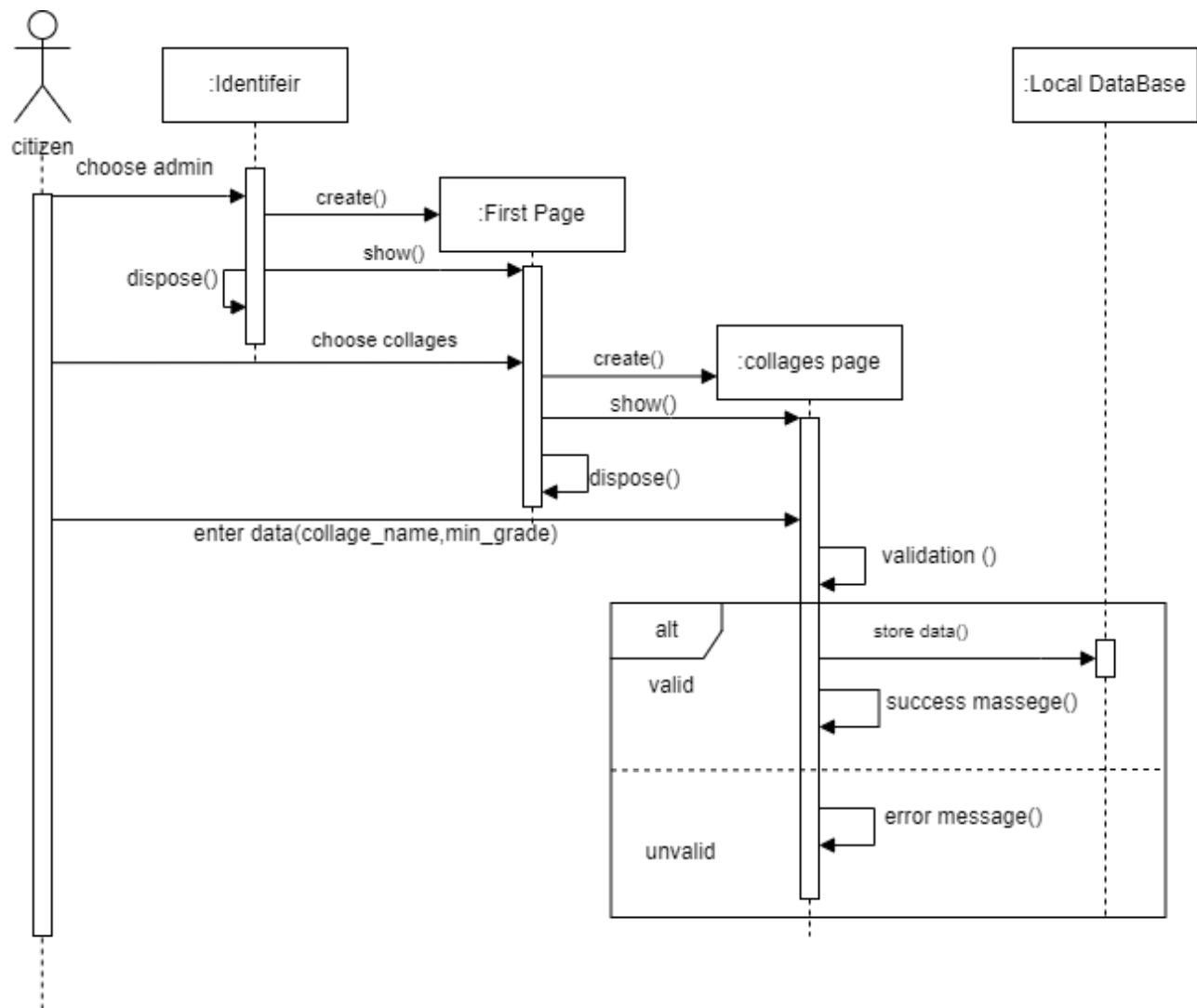*Figure 38 :Sequence Diagram (Nearby Hospitals)*

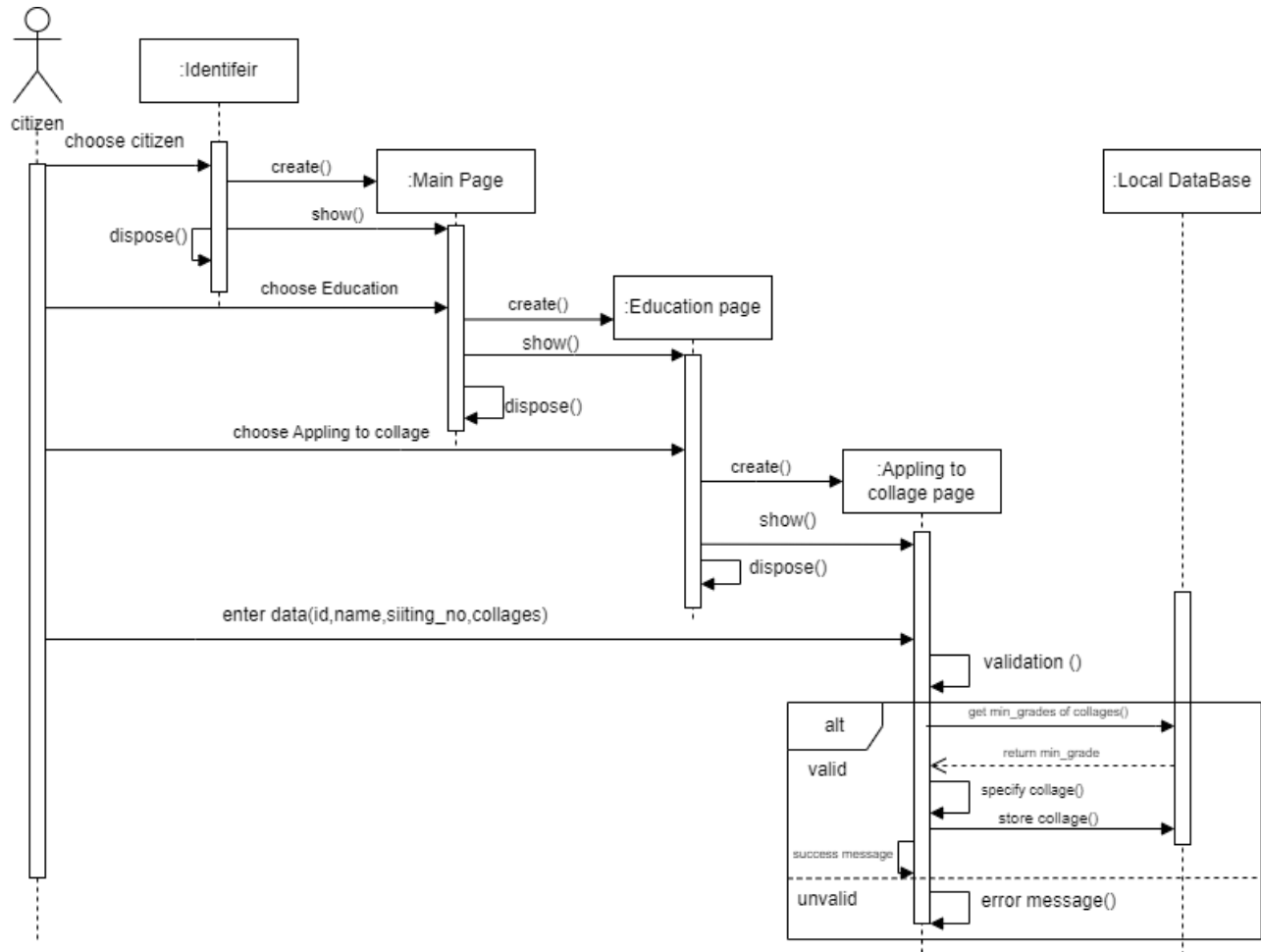*Figure 39 :Sequence Diagram (Insert Collages)(Admin)*

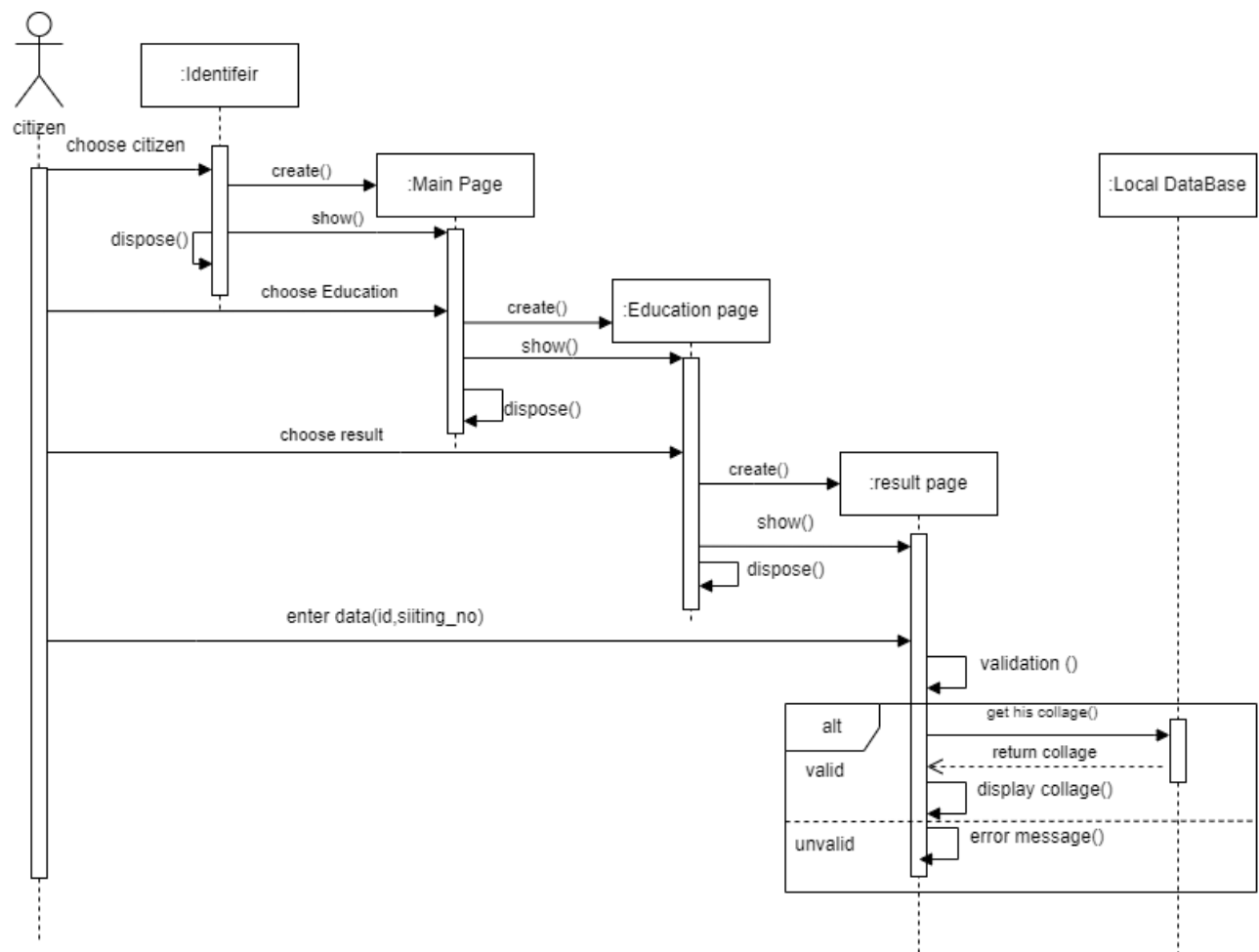*Figure 40 :Sequence Diagram (Appling to collage)*

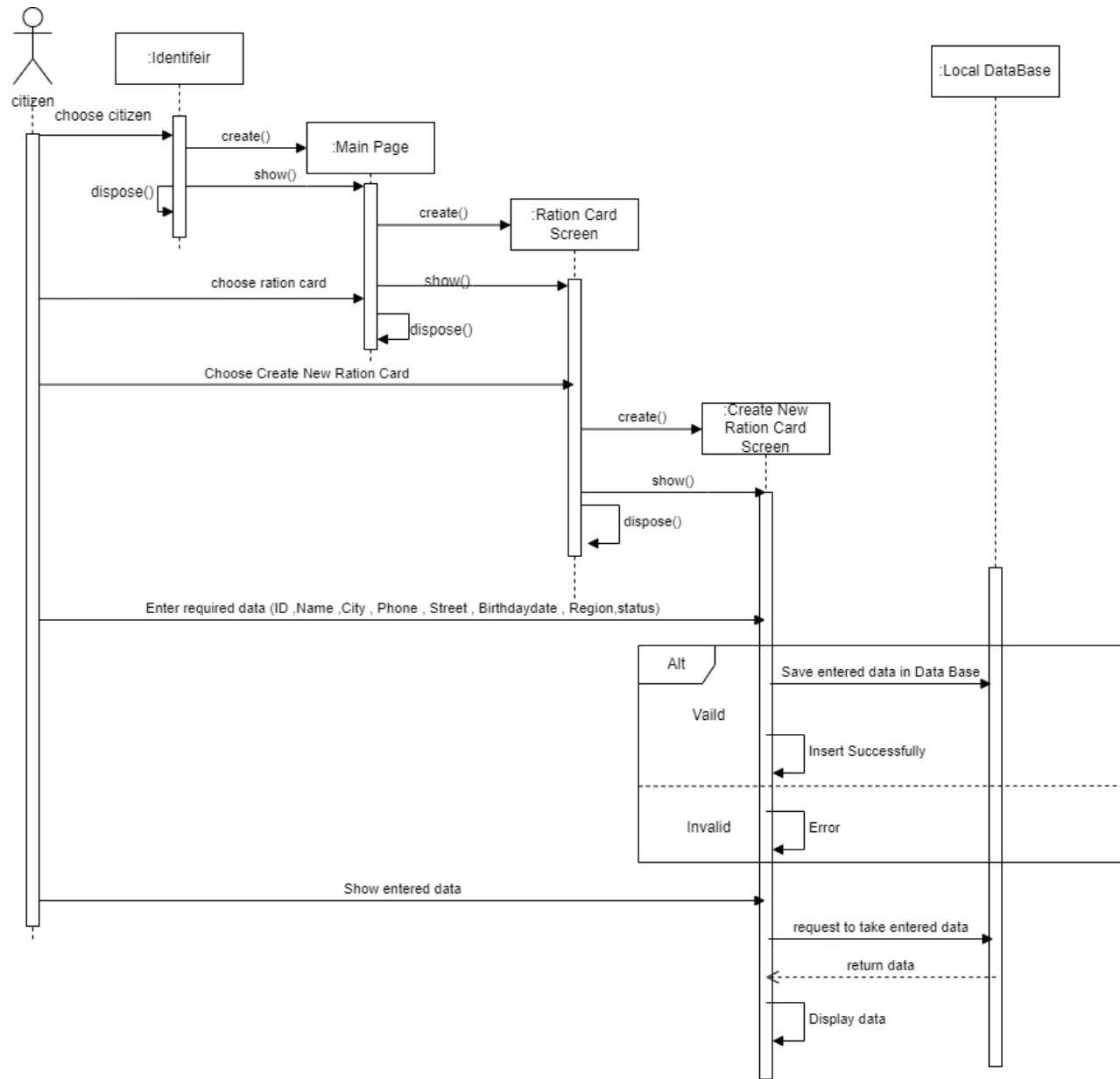*Figure 41 :Sequence Diagram (Result of Applying to collage)*
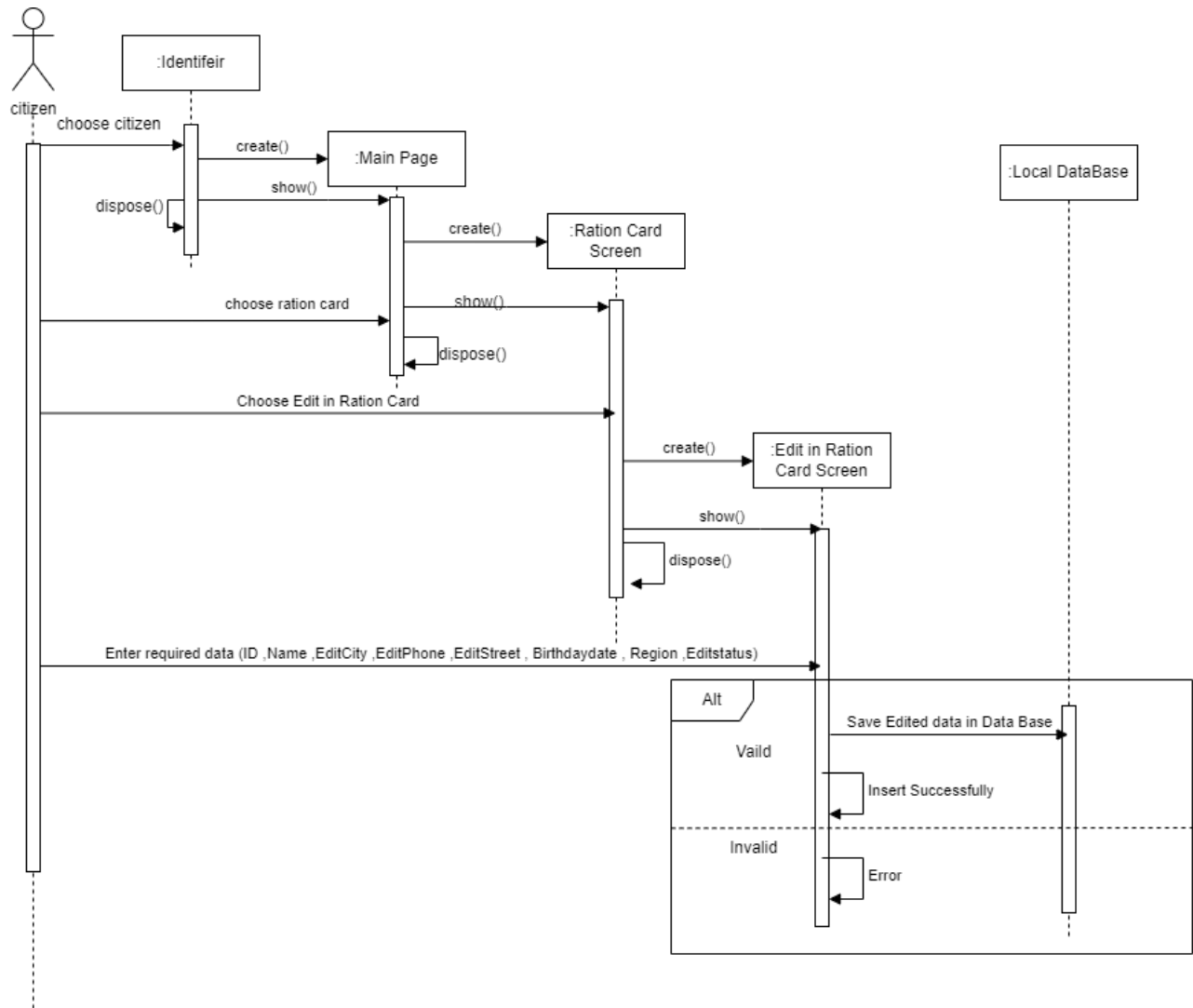
Figure 42 :Sequence Diagram (Create Ration Card)
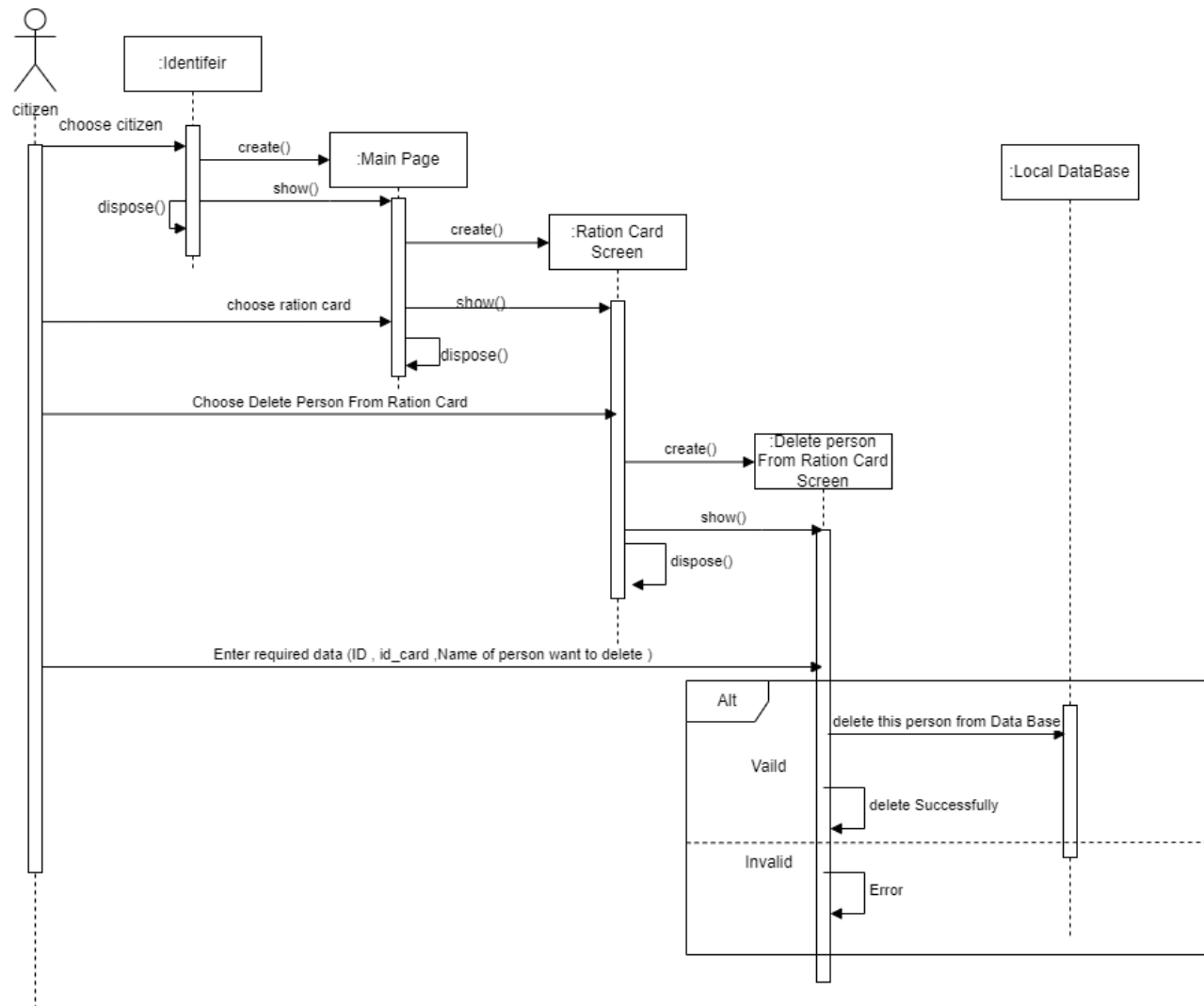
Figure 43 :Sequence Diagram (Edit Ration Card)

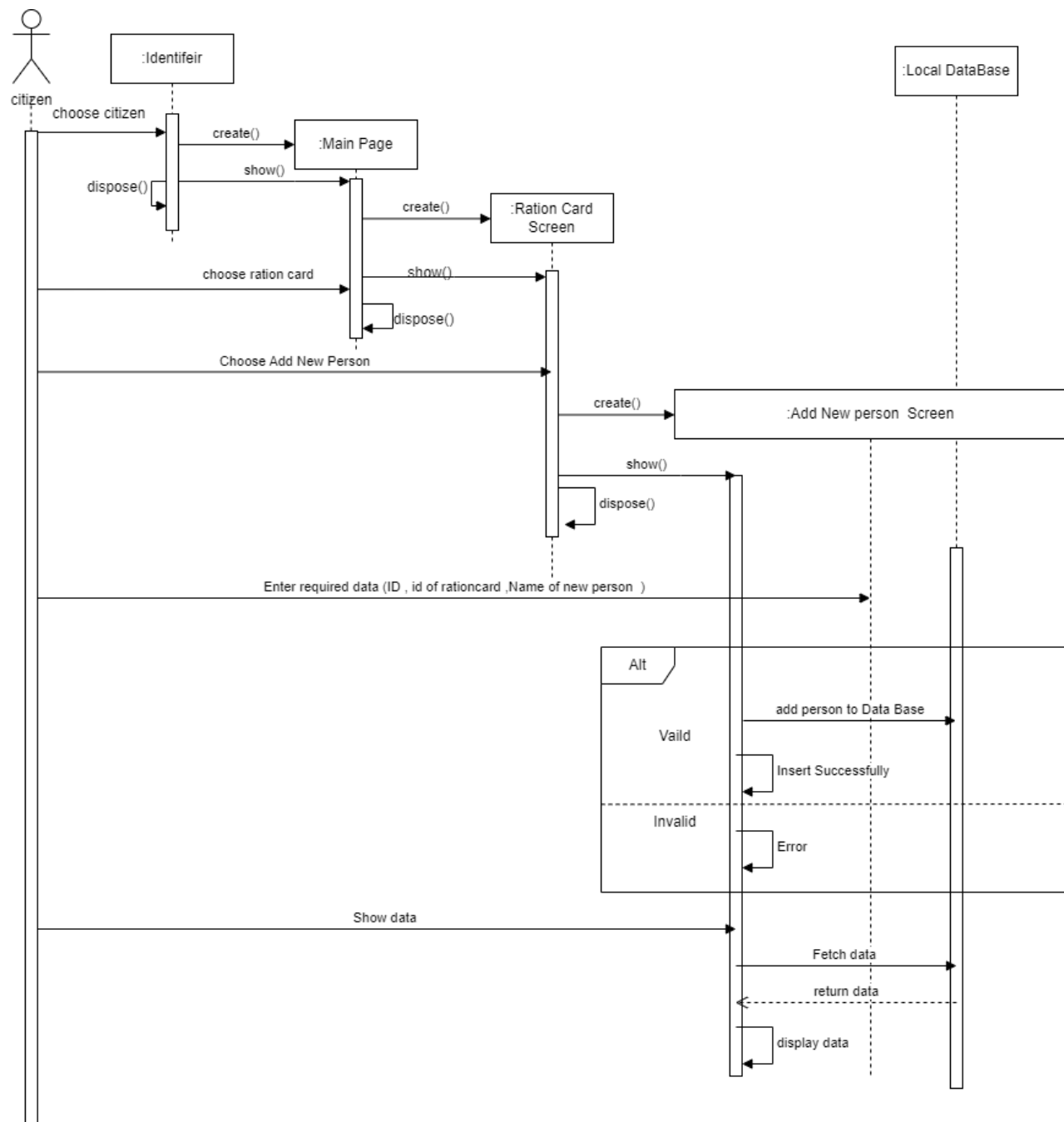*Figure 44 :Sequence Diagram (Delete person from ration card)*

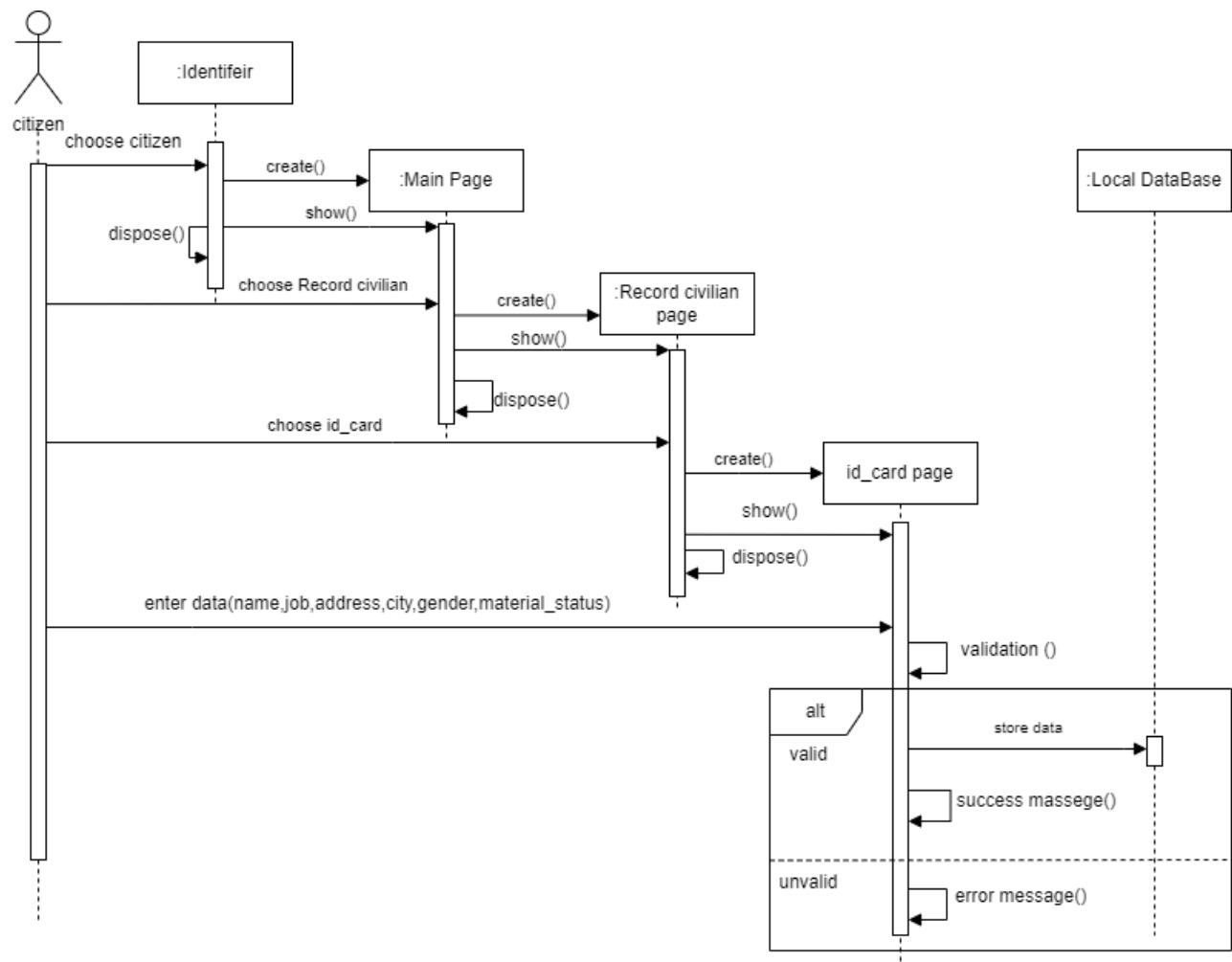*Figure 45 :Sequence Diagram (Add New Person to ration card)*

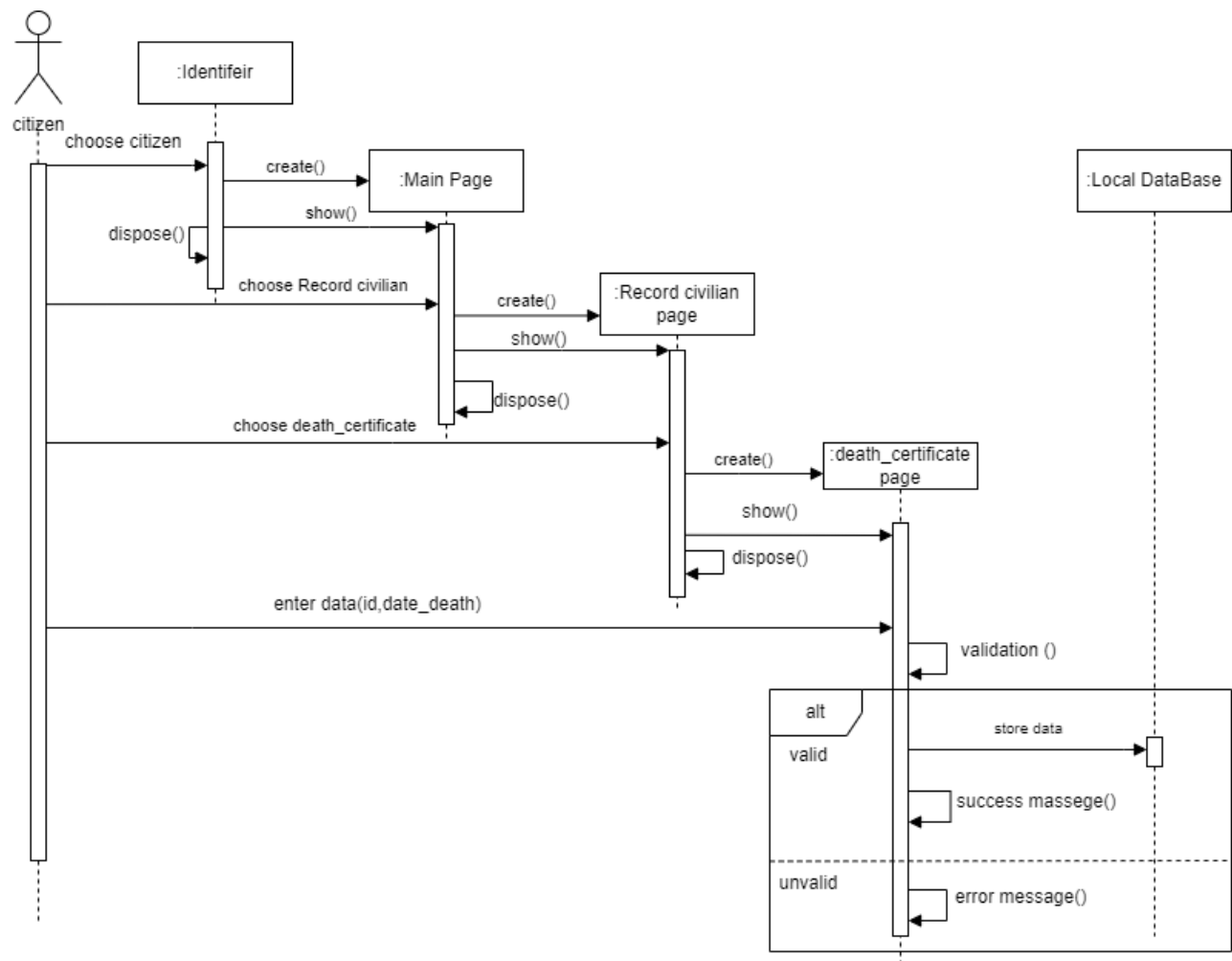*Figure 46 :Sequence Diagram (ID Card)*

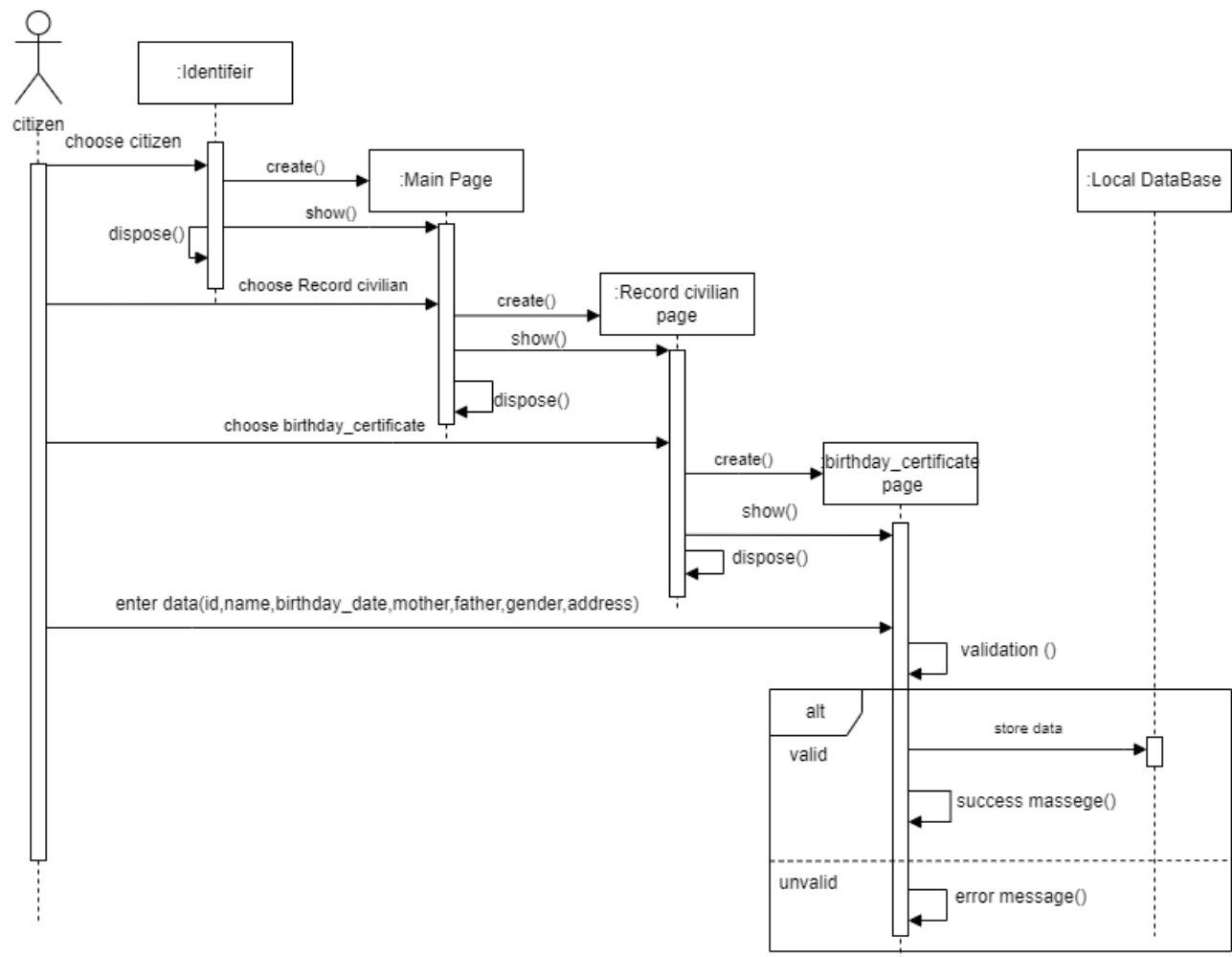*Figure 47 :Sequence Diagram (Death_certificate)*

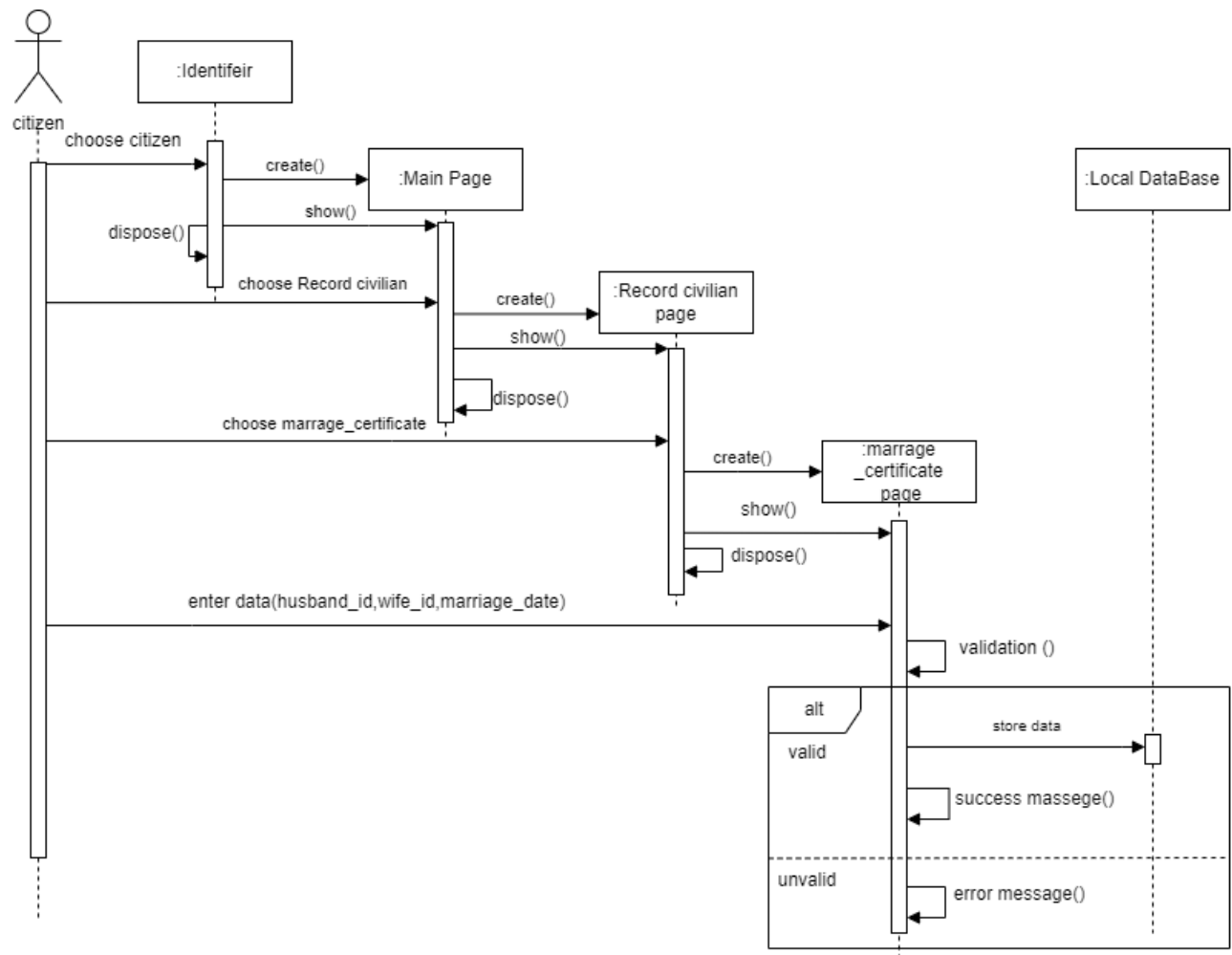*Figure 48 :Sequence Diagram (Birhtday_Certificate)*

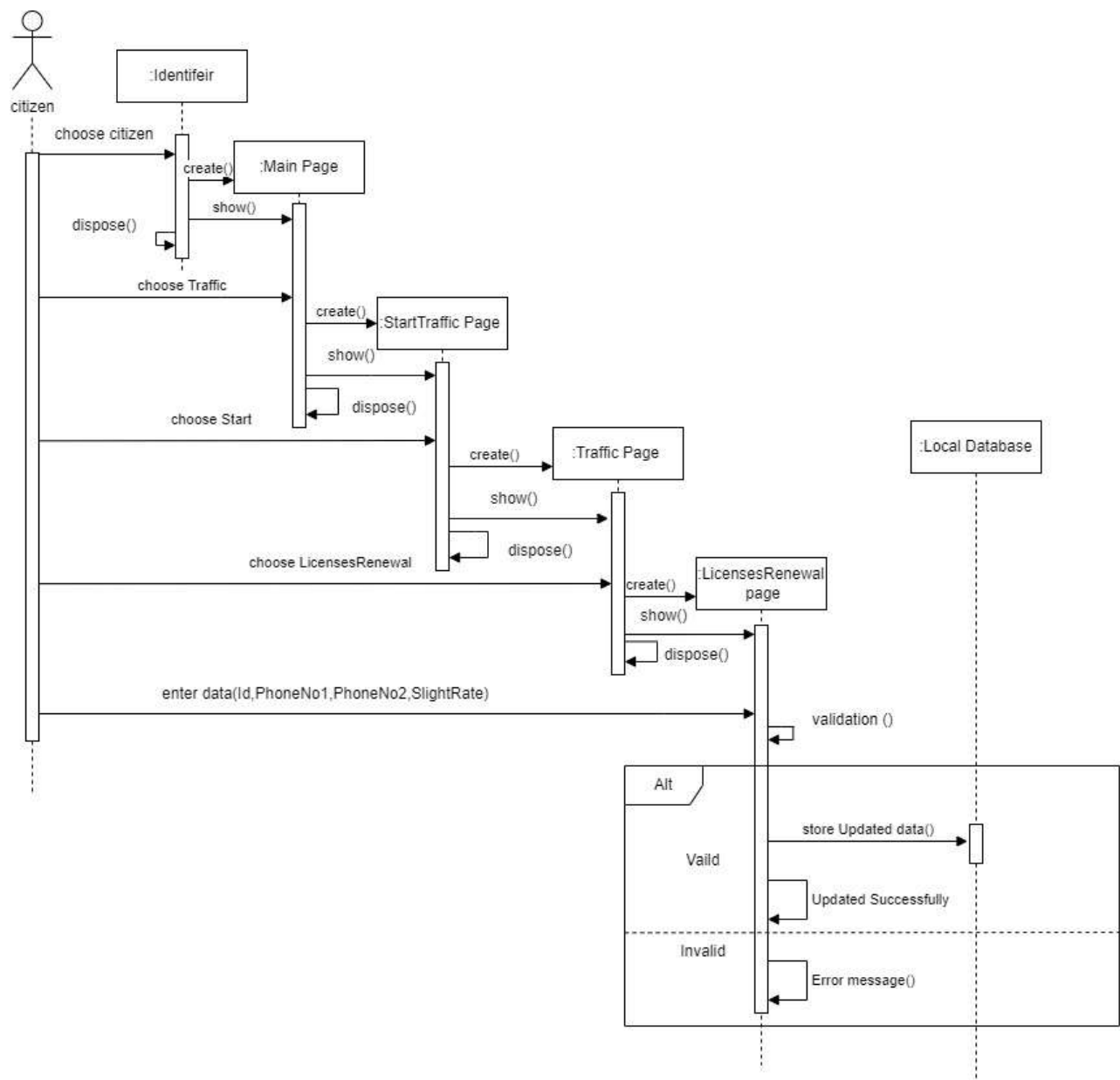*Figure 49 :Sequence Diagram (Marriage certificate)*
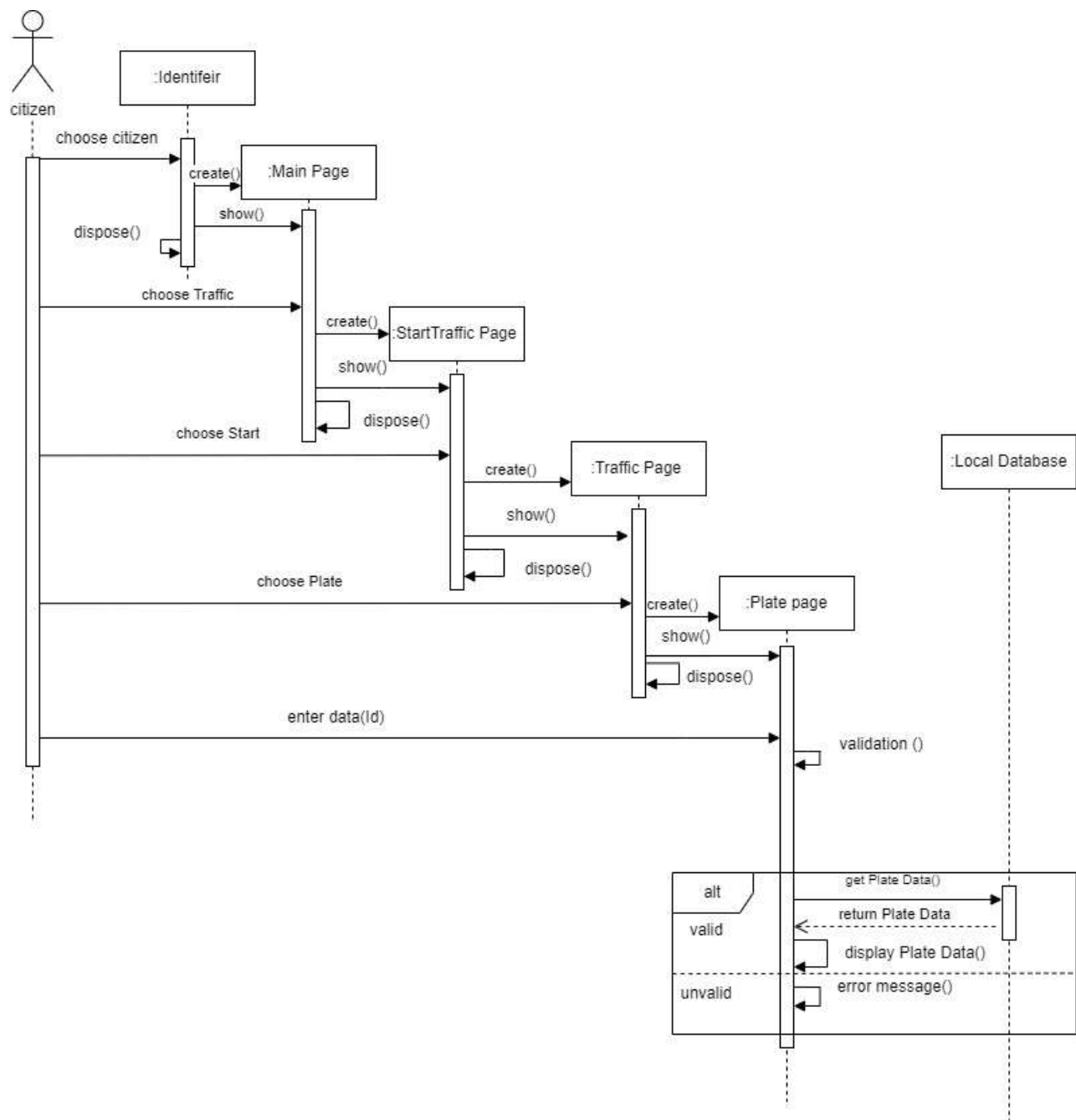
Figure 50 :Sequence Diagram (Licenses Renewal)
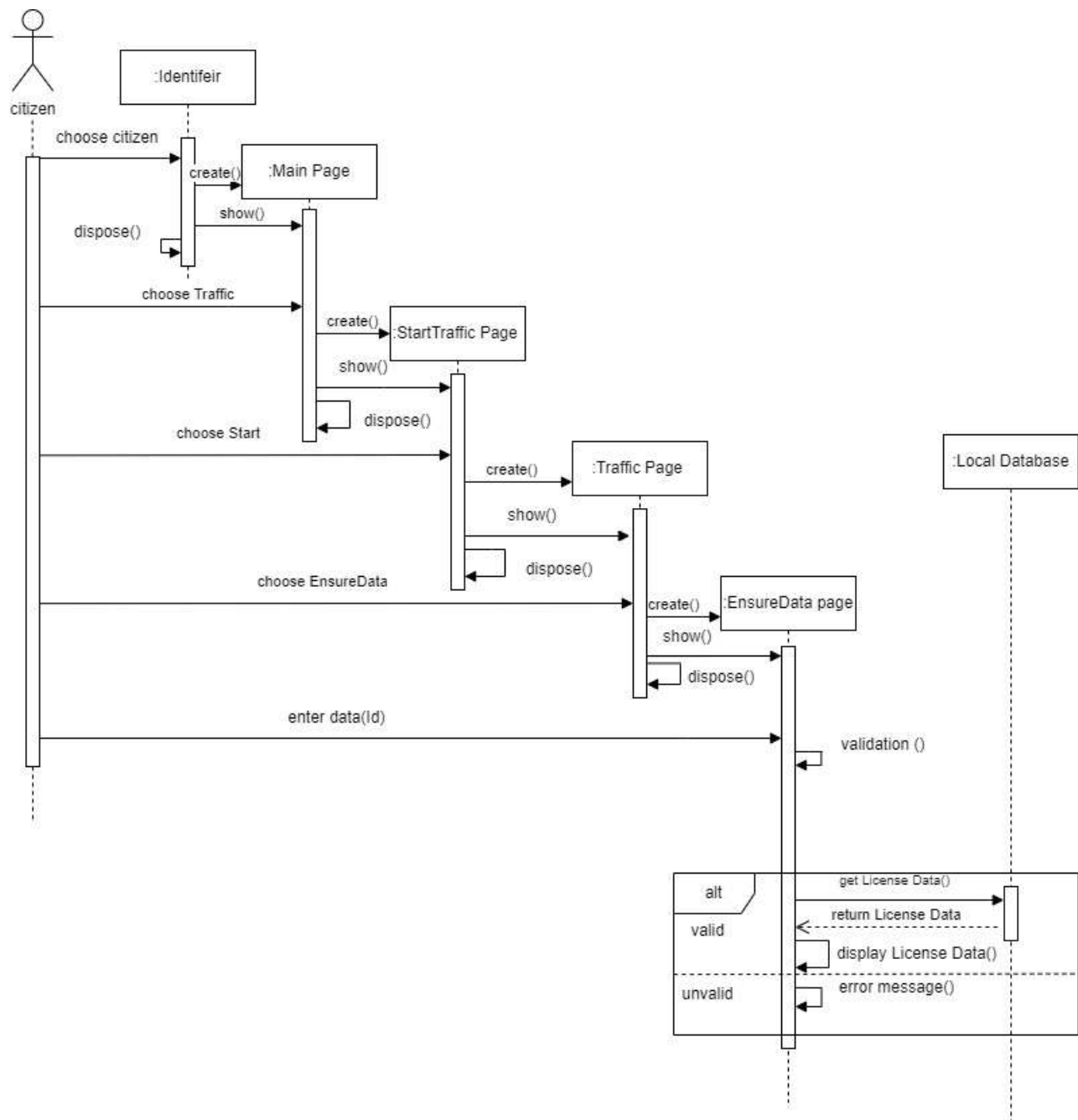
Figure 51 :Sequence Diagram (plate page)

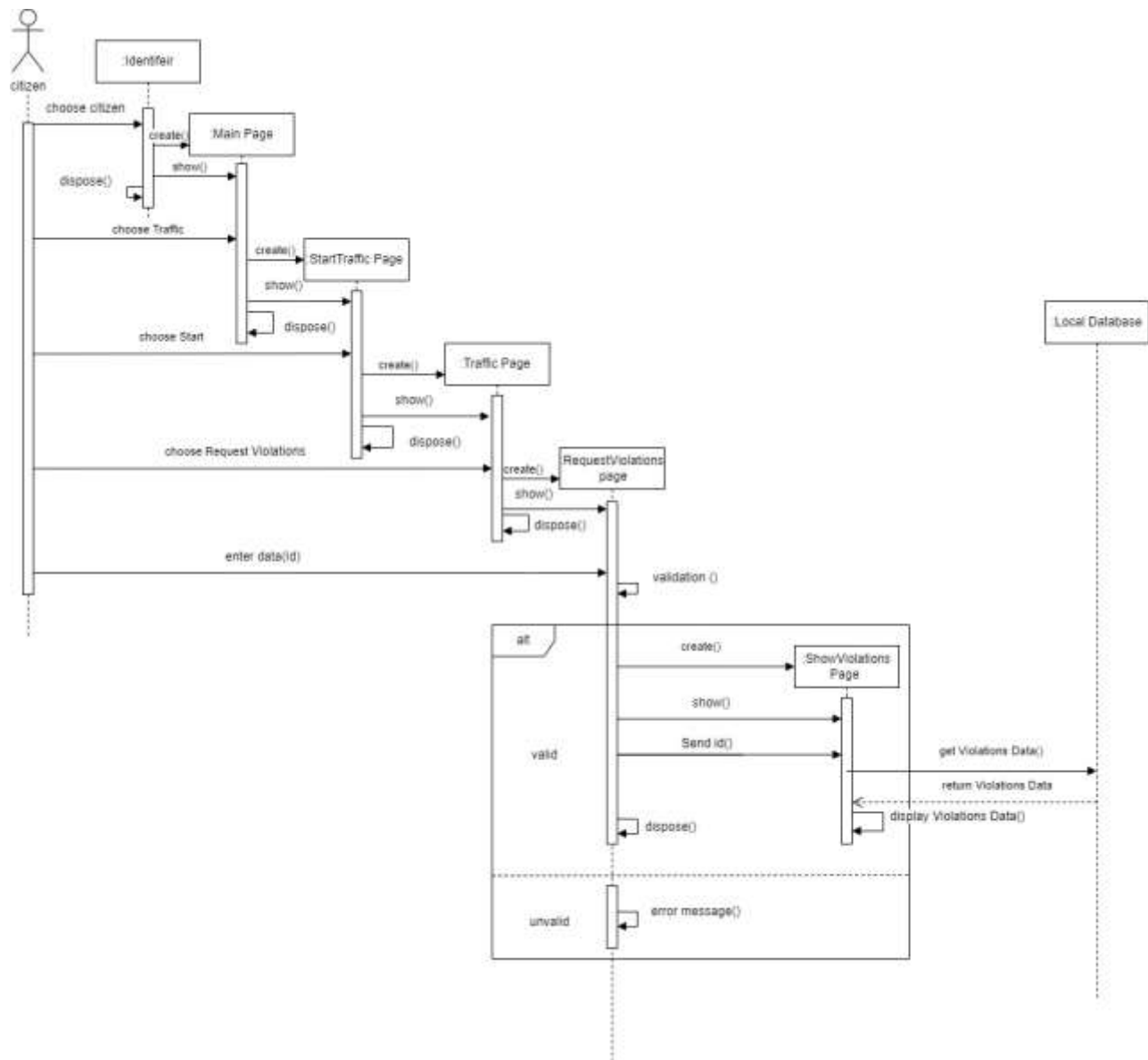*Figure 52 :Sequence Diagram (Ensure Data)*

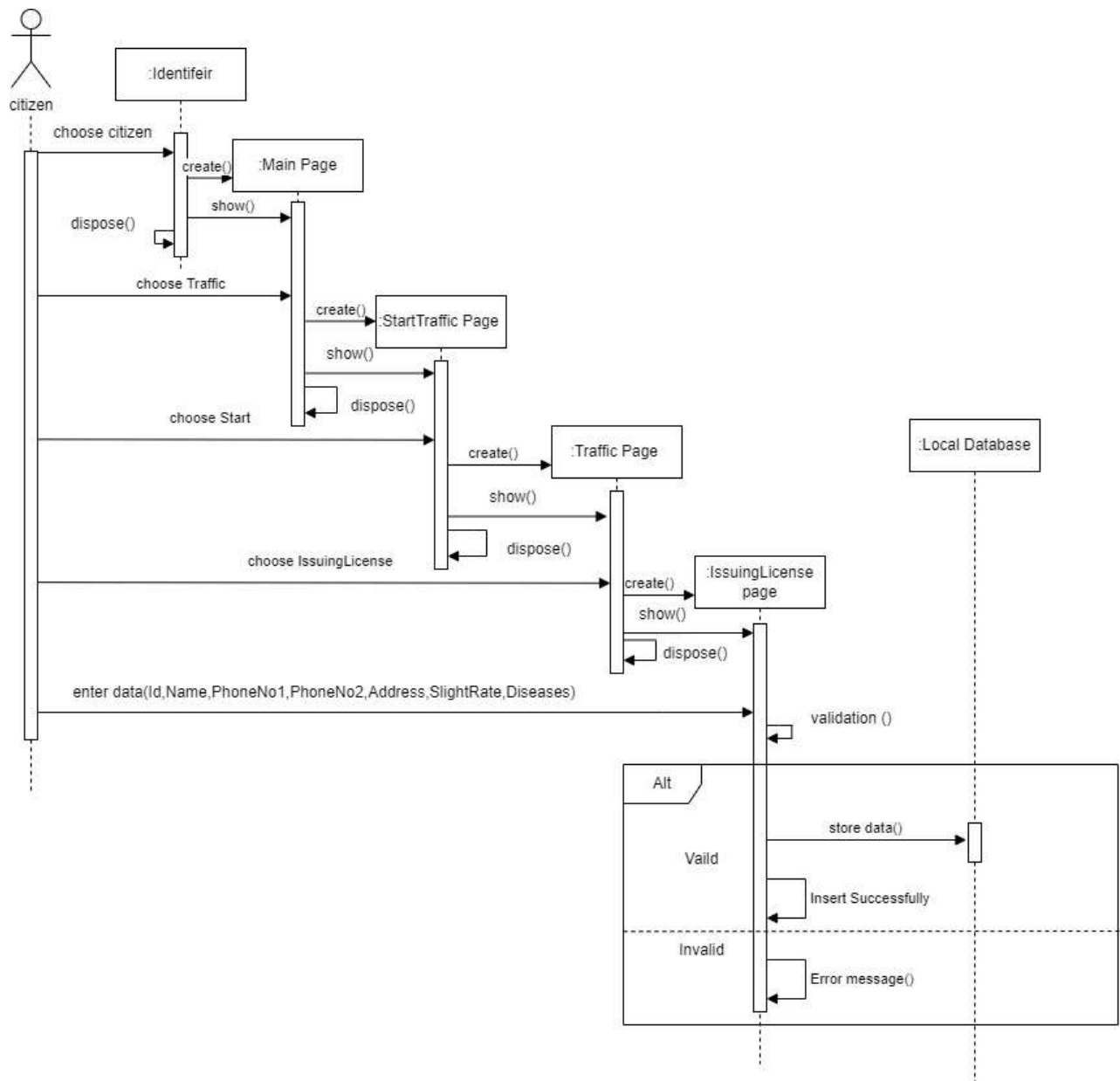*Figure 53 :Sequence Diagram (Request Violations)*

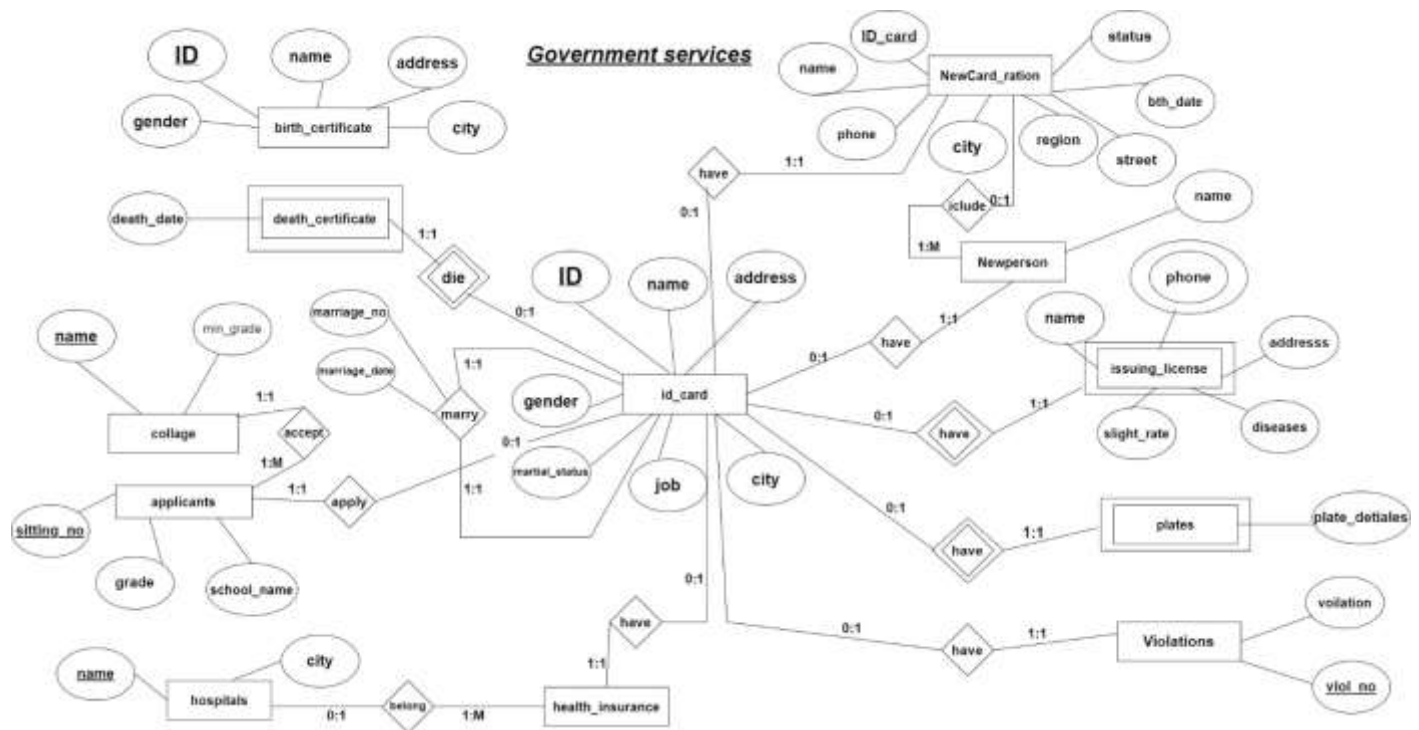*Figure 54 :Sequence Diagram (Issuing License)*
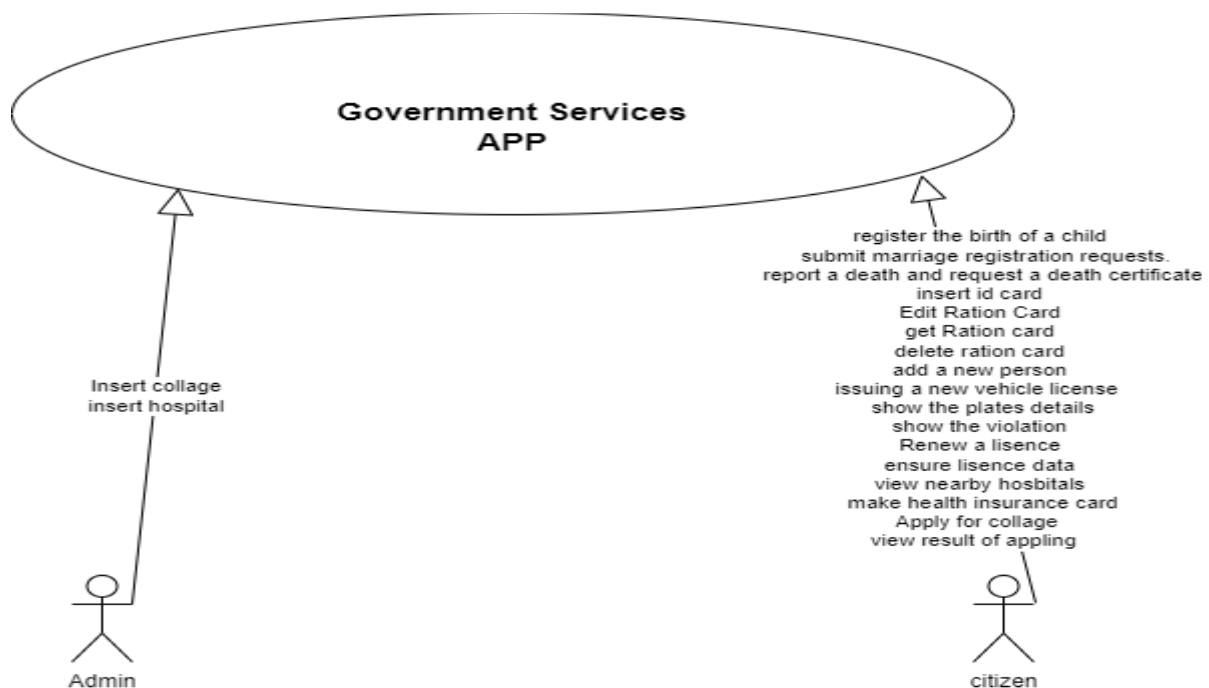
Figure 55 :ERD

Figure 56: Context Diagram

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11.System Evolution

- The system should be able to work on different operating systems.
- It should work properly on devices with low specifications. Only the server on which it's installed will be powerful.
- The outline of the generated certificates and reports may be subjected to changes.