

THE SUPERIOR COLLEGE LAHORE



Faculty of Computer Science & IT

Final Year Project

PROJECT REPORT

[Transpo Junction]

Project ID: **[FYP-MCSM-F19-023]**

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[Sir Abu-Huraira]
Project Report
 [Transpo Junction]

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
Umer Saeed Amina Iqbal Simran Saleem	1.0		<changes can be occur>	
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			<Added Project Plan>	
			<Changes Based on Feedback from Supervisor>	

APPROVAL

PROJECT SUPERVISOR

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Date: _____ Signature: _____

PROJECT MANAGER

Comments: _____

Date: _____ Signature: _____

HEAD OF THE DEPARTMENT

Comments: _____

Date: _____ Signature: _____

Dedication

This work is dedicated to our families, who spend their time and money for our education and for developing professional skills, so we can compete people, as accepting challenges coming in our educational career and after that. They would happy to see us serving easy and good life.

So now, it is to us that we do work.

Acknowledgements

We are really thankful to our supervisor **Sir Abu-Huraira** our project advisor, for guiding us through each and every step of the process with knowledge and support. Thank you for your advice, guidance and assistance. He guide us that how to do and why should do it. So we feel lucky to having him as our supervisor. He gives us emotional intelligence skills and performance skills. To make our dreams come into reality and make our parents to be proud of us.

In second we can't forget to thank our Professors, Instructors, Supervisor for their guidance, because without their right guidance we are like a blank paper, They always teaches us for the right way. We pray for our family members and Teacher that always blessed a lot in life.

Executive Summary

Transporting heavy objects and shifting process a pile of problems. The most common problem is availability of vehicles. Moreover the costs management and safety of your things. We can't track them and mismanagement of time.

So we are going to develop a website which will be used for transporting services, shifting luggage, building material and car carrier facility etc.

The solution is just click away. Safety is guaranteed as vehicle is registered in our application. No headache for payments, trusted drivers and registered vehicles. Admin have data about driver and customer. All the bio data of the driver is stored.

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Chapter 1

Introduction

Chapter 1: Introduction

We are going to develop a web application which will be used for transporting services, shifting and moving building material and also provide car carrier facility. No headache for payments, trusted drivers and registered vehicles. Admin and user have account in this application. All the bio data of the driver is given. Labors are also given which you may require for moving yours luggage etc. Safety is guaranteed as vehicle is registered in our application.

No headache for payments, trusted drivers and registered vehicles

1.1. Background

Some systems are providing the services but they are not providing heavy luggage transporting, building material, car carrier etc., so we are going to develop the system for those who are facing the major heavy luggage transporting problem on time and security. So this website is for transporting services, shifting and moving building material and also provides car carrier facility. No headache for payments, trusted drivers and registered vehicles.

1.2. Motivations and Challenges

Our motivations are our supervisors and professors when we discussed our idea with them, they encourage us to do work on this. Challenge for us to do market analysis and survey, but Insha'Allah we will do this project on time comfortably.

1.3. Goals and Objectives

Objective of this project is to provide a better transporting platform or people so they can transfer their luggage from one place to another place easily

1.4. Literature Review/Existing Solutions

Uber and careem is providing the services but they are not providing heavy luggage transporting, building material etc., so we are going to develop the system for those who are facing the major heavy luggage transporting problem on time and security.

1.5. Gap Analysis

<p>Strength</p> <ul style="list-style-type: none"> • Better plan as compare to Competitor. • Knows a lot of weakness of big platform's 	<p>Weakness</p> <ul style="list-style-type: none"> • Few strong competitor's • Budget constraint problem
<p>Opportunity</p> <ul style="list-style-type: none"> • Get all information on time at one place. 	<p>Threats</p> <ul style="list-style-type: none"> • Budget limitation is one the major threads.

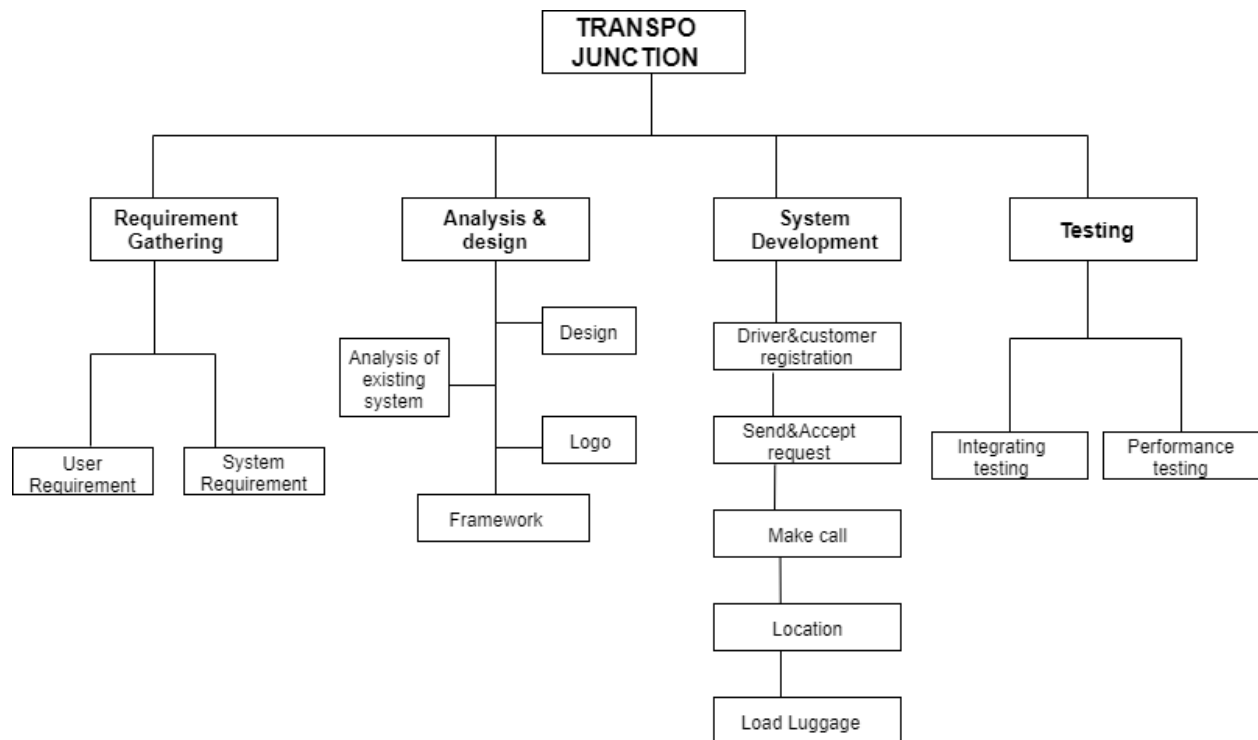
1.6. Proposed Solution

Want to shift another place, no problem we got you covered. The solution is just a click away. Open our website “**Transpo junction**” and relax. We are offering economical rates. You can track the vehicle as contact with driver and admin and save your precious time. Safety is guaranteed as vehicle is registered. Admin can active or deactivate the user profile and he had also authority to confirm and cancel the booking. You can also call labors for helping. Extra people cover your luggage and put it into the vehicle.

1.7. Project Plan

Our website is well planned and organized. We make our project completely user friendly so, the customer can use it easily. We are working on all the requirements of the user.

1.1.1. Work Breakdown Structure

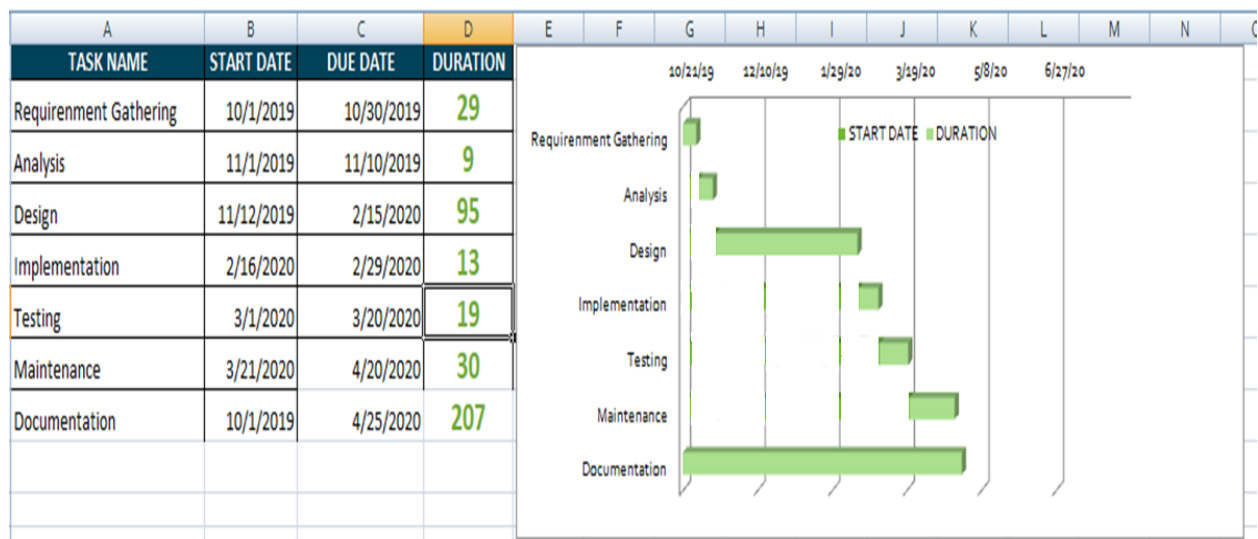


1.1.2. Roles & Responsibility Matrix

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1.	Proposal submission			1 week	Amina Iqbal Umer Saeed Simran Saleem
2.	First documentation			2 weeks	Amina Iqbal Umer Saeed Simran Saleem
3.	Presentation			1 weeks	Amina Iqbal Umer Saeed Simran Saleem
4.	System requirements			2 weeks	Amina Iqbal Simran Saleem
5.	Use cases & analysis			1 weeks	Umer Saeed
6.	System design			3 weeks	Amina Iqbal Simran Saleem
7.	implementation			3 week	Amina Iqbal Umer Saeed Simran Saleem

8.	Front end (html,css)			2 weeks	Amina Iqbal Umer Saeed Simran Saleem
9.	Database (php)			2 weeks	Amina Iqbal Umer Saeed
10.	Final report			2 weeks	Amina Iqbal Umer Saeed

1.1.3. Gantt Chart



1.8. Report Outline

Chapter no. 01 (Introduction of Application)

Chapter no. 2(Functional and Non Functional Requirements, Scope of Product, Interface)

Chapter no. 3(use cases)

Chapter no.4 (system design and diagrams)

Chapter no.5 (Implementations on project)

Chapter no. 6 (Testing and evaluation)

Chapter no. 7(summary)

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1. Introduction

We are going to develop a web application which will be used for transporting services, shifting and moving building material and also provide car carrier facility. No headache for payments, trusted drivers and registered vehicles. Admin and user have account in this application. All the bio data of the driver is given. Labors are also given which you may require for moving yours luggage etc. Safety is guaranteed as vehicle is registered in our application.

No headache for payments, trusted drivers and registered vehicles

2.1.1. Purpose

Purpose of this project is to provide a better online Social platform for people so they can shift their heavy luggage building material and moves cars easily from one place to another place. We are creating new features and some old one's but in new way.

2.1.2. Document Conventions

Our document consists of following important conventions

- UML (unified modeling language)
- Data base
- ERD (Entity relation diagram)
- AD (Architecture diagram)
- Sequence Diagramed
- Activity diagram
- STD

2.1.3. Intended Audience and Reading Suggestions

The different types of readers are:

- Customer
- Admin

Only register customer can use this website.

2.1.4. Product Scope

We are going to develop a website which will be used for transporting and shifting building material, moves cars etc. There is just one platform who providing these services so it become very useful website for shifting and transporting purposes. We provide every service that every customer demands.

2.1.5. References

<https://www.w3schools.com/html/>

<https://www.youtube.com/watch?v=mU6anWqZJcc>

<https://www.youtube.com/watch?v=5bMdjkfvONE>

2.2. Overall Description

2.2.1. Product Perspective

This project is to provide a better online Social platform for people who have problems to shifting their heavy luggage and other material so they can easily move their luggage through using these transport services.

2.2.2. Product Functions

- User will able to login and register on the website.
- User view services on website.
- Customer can book truck.
- Record of customer is store.

2.2.3. User Classes and Characteristics

User should have basic knowledge of using desktop & smart phone. Knowledge of how to use internet and how to order is necessary. The interface of this website is user friendly.

2.2.4. Operating Environment

“Transpo junction” will operate with at any desktop device. This website will be developing by using Bracket software. The Hardware require use to develop is our systems running at Windows having 8GB of Ram.

2.2.5. Design and Implementation Constraints

The project intends to follow (AGILE METHODOLOGY) for its development. Agility helps in time boxed iterative development, suggests adaptive planning and promote incremental delivery. To deal with changing requirements and yield frequent and small software increments which can be adjusted, documented and built on the project intends to use SCRUM as the process model.

2.2.6. Assumptions and Dependencies

We will provide high level service for web application to our Users. But some risk is effect on the system like: Inappropriate skills and experience. Working together as a team we face health factor of team like (illness issues) that affect us to complete our project within the specified time, but we are committed to our work InshaAllah we do our best and make it happen.

2.3. External Interface Requirements

2.3.1. User Interfaces

“Transpo junction” will be access to all desktop devices. The means by which the user and a computer system interact, in particular the use of input devices and software in our project.

2.3.2. Hardware Interfaces

To run the application on laptop, computer or higher and minimum of 8GB of Ram with any processor type whether it is 64bit or 32bit can run the application. An internet connection is

needed for application to run which is both possible with Wi-Fi or Cellular Network, through which information will be retrieved from database and displayed on desktop screen.

2.3.3. Software Interfaces

PROJECT TYPE: WEBSITE
CODING LANGUAGE: HTML, PHP, Java
DATABASE: LOCALHOST
SOFTWARE: BRACKETS

2.3.4. Communications Interfaces

The system shall be the HTTPS protocol for communication. User can connect to the system through internet. Internet communication will be through IP protocol.

2.4. System Features

The system must be able to show information to user in real time. The system must be able to add or delete information in admin panel.

- Database should be working fine
- Internet connection is must

2.4.1. System Feature 1

USER

2.4.1.1. Description and Priority

It is of High priority feature, without this feature this application is incomplete. The feature work is to book truck and after confirm the booking.

USER has to do registration on our website so they can easily book truck from there. Our priority is that customer can properly get registered and get their official account on our website. So they can't get any problem in ordering of truck. And USER easily gets truck by using this website.

2.4.1.2. Stimulus/Response Sequences

Stimulus: When user open website.
Response: login page open first.
Stimulus: User put Email & password in form.

Response: User gets logged in.

Stimulus: User View service.

Response: Services will be shown.

Stimulus: Customer Book Truck.

Response: info. Page will open.

2.4.1.3. Functional Requirements

REQ-SF2-1: Register

REQ-SF2-2: Login

REQ-SF2-3: View services

REQ-SF2-4: Book truck

REQ-SF2-5: Confirm/cancel booking

REQ-SF2-6: Logout

2.4.2 System Feature 2

ADMIN

2.4.2.1 Description and Priority

Admin make configuration of Customer account and confirm order of the Customer. Priority is to make best Booking on our website.

2.4.2.2 Stimulus/Response Sequences

Stimulus: When Customer register on our Website.

Response: Admin confirm registration.

Stimulus: Admin update profiles.

Response: New profiles will be shown.

2.4.2.3 Functional Requirements

REQ-SF2-1: Admin confirm registration.

REQ-SF2-2: Admin update prices.

REQ-SF2-3: Admin confirm booking.

2.5. Other Nonfunctional Requirements

2.5.1. Security Requirements

- System will use secured database.

- Normal user can just read information but they cannot edit or modify anything except their personal and some other information.
- System will have different types of users and every user has access constraints

2.5.2 Safety Requirements

- System used shall not cause any harm to human users.
- Bookings offer by the website are safe.
- USER shall not harm by any of the booking.

2.5.3 Software Quality Attributes

- Response Time
- Efficiency
- Utilization
- Reliability.
- Recoverability.
- Maintainability.

2.5.4 Performance Requirements

The system shall accommodate high number of items and users without any fault. Responses to view information shall take no, longer than 5 seconds to appears on the screen.

2.5.5 Business Rules

If customers book a truck they can cancel and modify booking.
Cash on delivery.

2.6. Other Requirements

There are no other requirements or specific thing needed to run the application or to run it in development phase all of the information is written above for better understanding.

Chapter 3

Use Case Analysis

Chapter 3: System Analysis

In this chapter, we do system analysis. We make use cases according to system demand. We make functional and non-functional requirement of the system.

3.1. Use Case Model

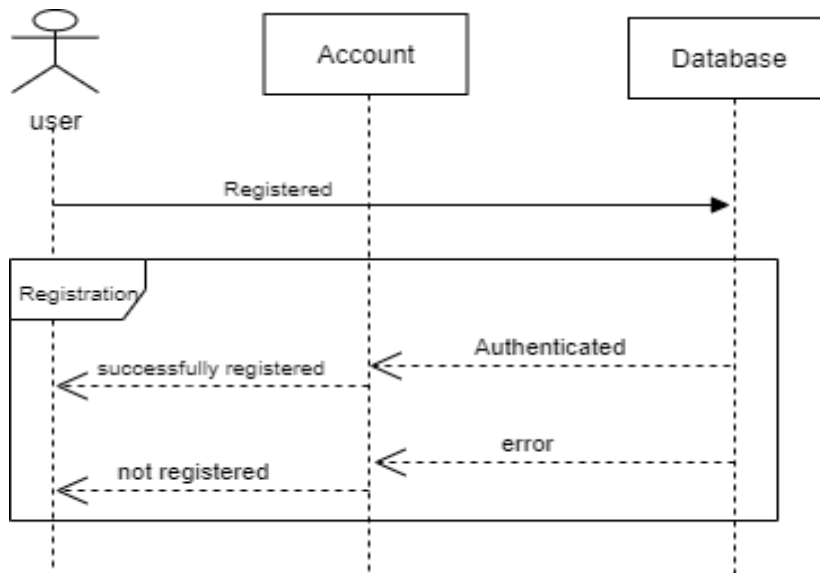


3.2. Fully Dressed Use Cases

F.D.U.C.01

<u>Use Case Section</u>	<u>Comment</u>
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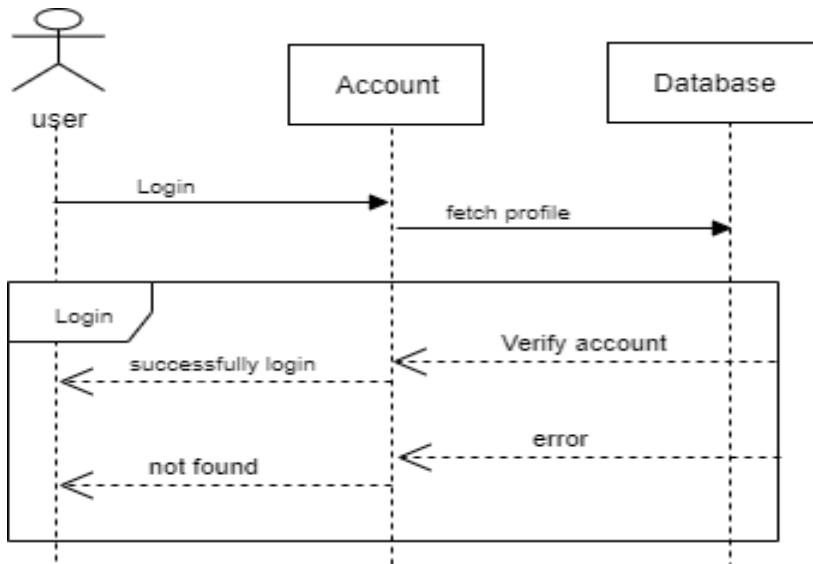
Use case Name	Registration
Scope	Customer uses it to register himself into the website
Primary Actors	Customer
Post-Conditions	After registration customer is able to view services & book truck.
Main Scenario	<ul style="list-style-type: none"> ➤ Customer website. ➤ Customer selects Signup option ➤ Customer enters all required information. ➤ Customer registers themselves into the system.



F.D.U.C.02

<u>Use Case Section</u>	<u>Comment</u>
Use Case Name	Login
Scope	Users use it to log in to the website

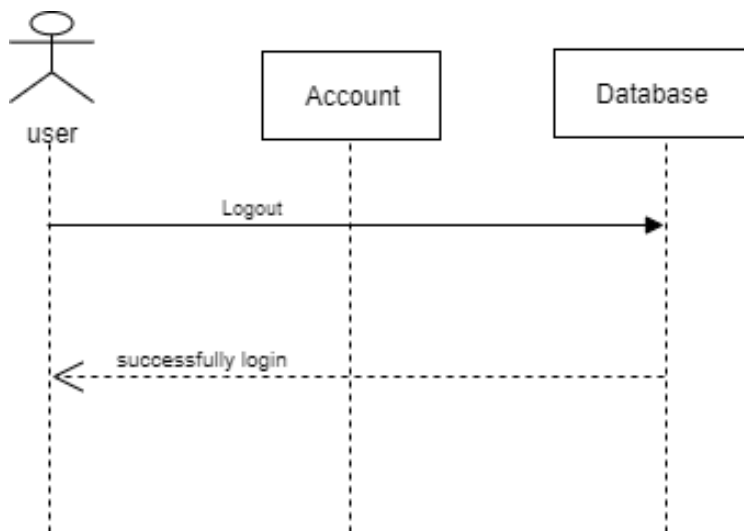
Primary Actors	Customer, Admin
Pre-Conditions	N/A
Post-Conditions	After logging in, all users can perform their specified operations
Main Scenario	<ul style="list-style-type: none"> ➤ Users open Website. ➤ Select Sign-in option. ➤ Customer logs into the website. ➤ Admin logs into the website.



F.D.U.C.03

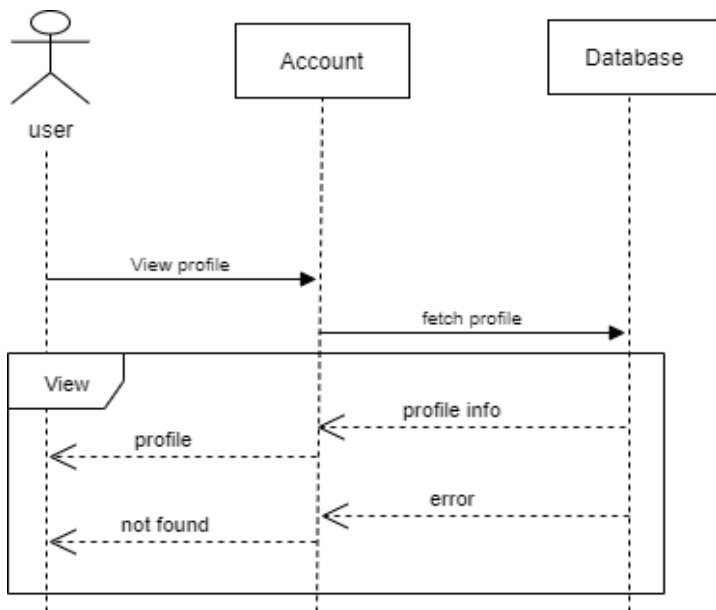
<u>Use Case Section</u>	<u>Comment</u>
-------------------------	----------------

Use Case Name	Logout
Scope	Users use it to logout to the account in website.
Primary Actors	Customer, Admin
Pre-Conditions	N/A
Post-Conditions	After logged out, no user can performed any operation
Main Scenario	<ul style="list-style-type: none"> ➤ Users open website. ➤ Select logout option. ➤ Customer logs out account. ➤ Admin logs out the account.



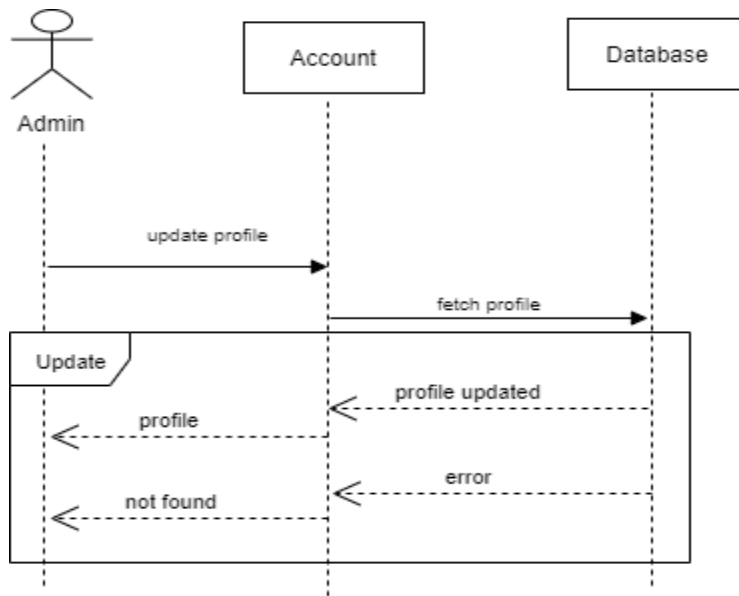
F.D.U.C.04

<u>Use Case Section</u>	<u>Comment</u>
Use case Name	View Profile
Scope	Admin use it to view profile
Actors	Admin
Pre-Conditions	Admin must be logged in, to access their profile
Post-Conditions	After viewing profile, admin perform required tasks.
Main Scenario	<ul style="list-style-type: none"> ➤ Users open website. ➤ Users login to the website. ➤ Select view profile option. ➤ View their profile.



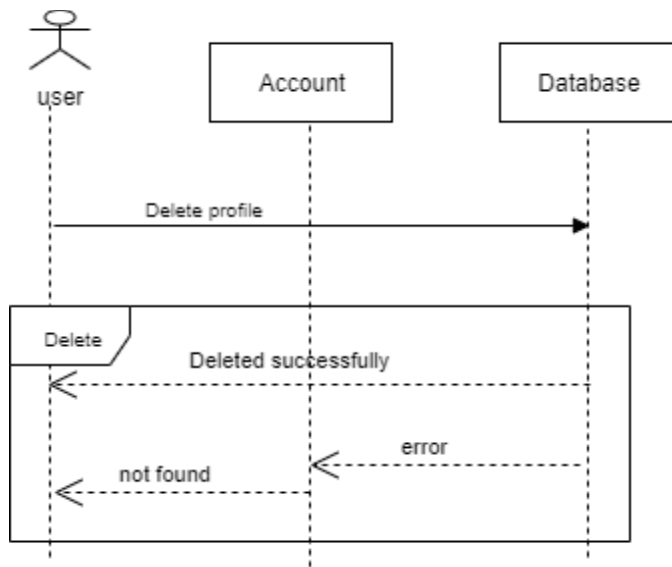
F.D.U.C.05

<u>Use Case Section</u>	<u>Comment</u>
Use case Name	Update Profile
Scope	The admin manage their profile
Primary Actors	Admin
Pre-Conditions	Admin must be logged in, to access and update their profile
Post-Conditions	After Updating Profile Admin able view transport info etc.
Main Scenario	<ul style="list-style-type: none"> ➤ Admin open website. ➤ Admin log into the website. ➤ Select Update profile option. ➤ Update profile. ➤ Select confirm option.



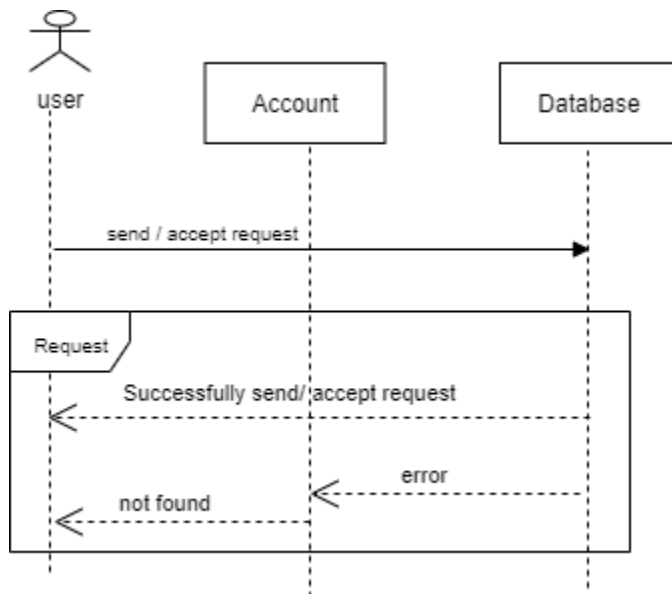
F.D.U.C.06

<u>Use Case Section</u>	<u>Comment</u>
Use Case Name	Delete Profile
Scope	Used to delete profile of user
Primary Actors	Admin
Pre-Conditions	Admin should be logged in to the website. The profile to be deleted should be available.
Post-Conditions	After deleting profile Admin is able to view , update other profile
Main Scenario	<ul style="list-style-type: none"> ➤ Admin opens website. ➤ Admin logs in to the website. ➤ Selects the products to delete. ➤ Deletes the products. ➤ Selects confirm option.



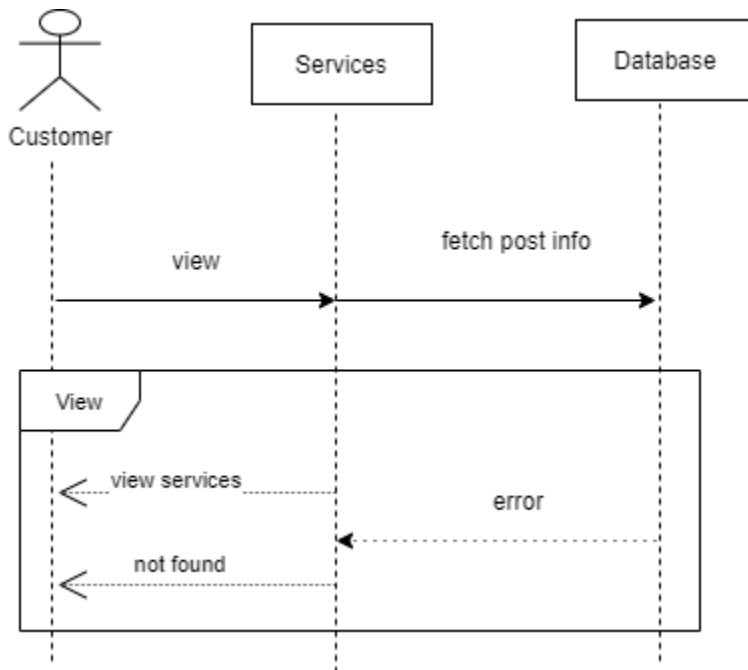
F.D.U.C.07

<u>Use Case Section</u>	<u>Comment</u>
Use Case Name	Book Truck
Scope	Used to book truck
Primary Actors	Customer
Pre-Conditions	Customer should be logged in to the website.
Post-Conditions	After fill data, the booking will confirm.
Main Scenario	<ul style="list-style-type: none"> ➤ Customer opens website. ➤ Customer logs in to the website. ➤ Selects send Book Truck option. ➤ Selects confirm option.



F.D.U.C.08

<u>Use Case Section</u>	<u>Comment</u>
Use Case Name	View Services
Scope	Used to view services
Primary Actors	Customer, Admin
Pre-Conditions	Customer should be logged in to the site Admin should be logged in to the site
Post-Conditions	After viewing profile, customer will able to book a truck
Main Scenario	<ul style="list-style-type: none"> ➤ Customer/Admin opens website. ➤ Customer/Admin logs in to the website ➤ Selects view services option

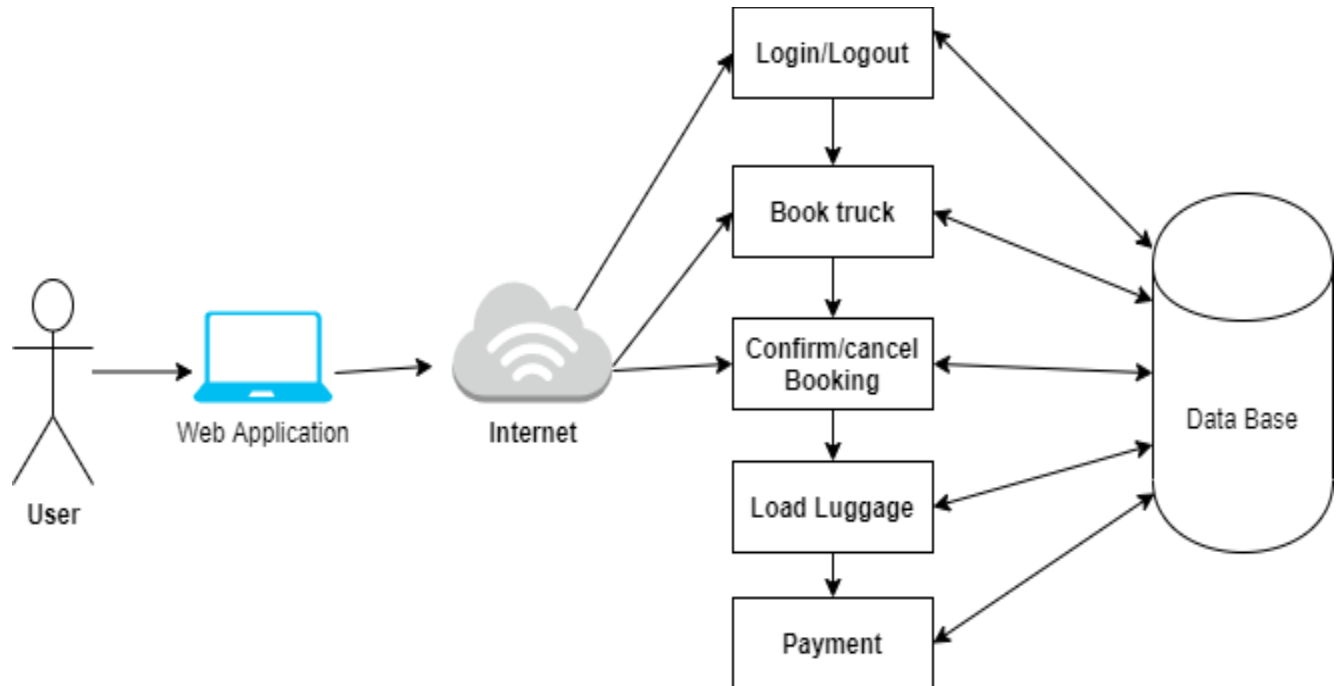


Chapter 4

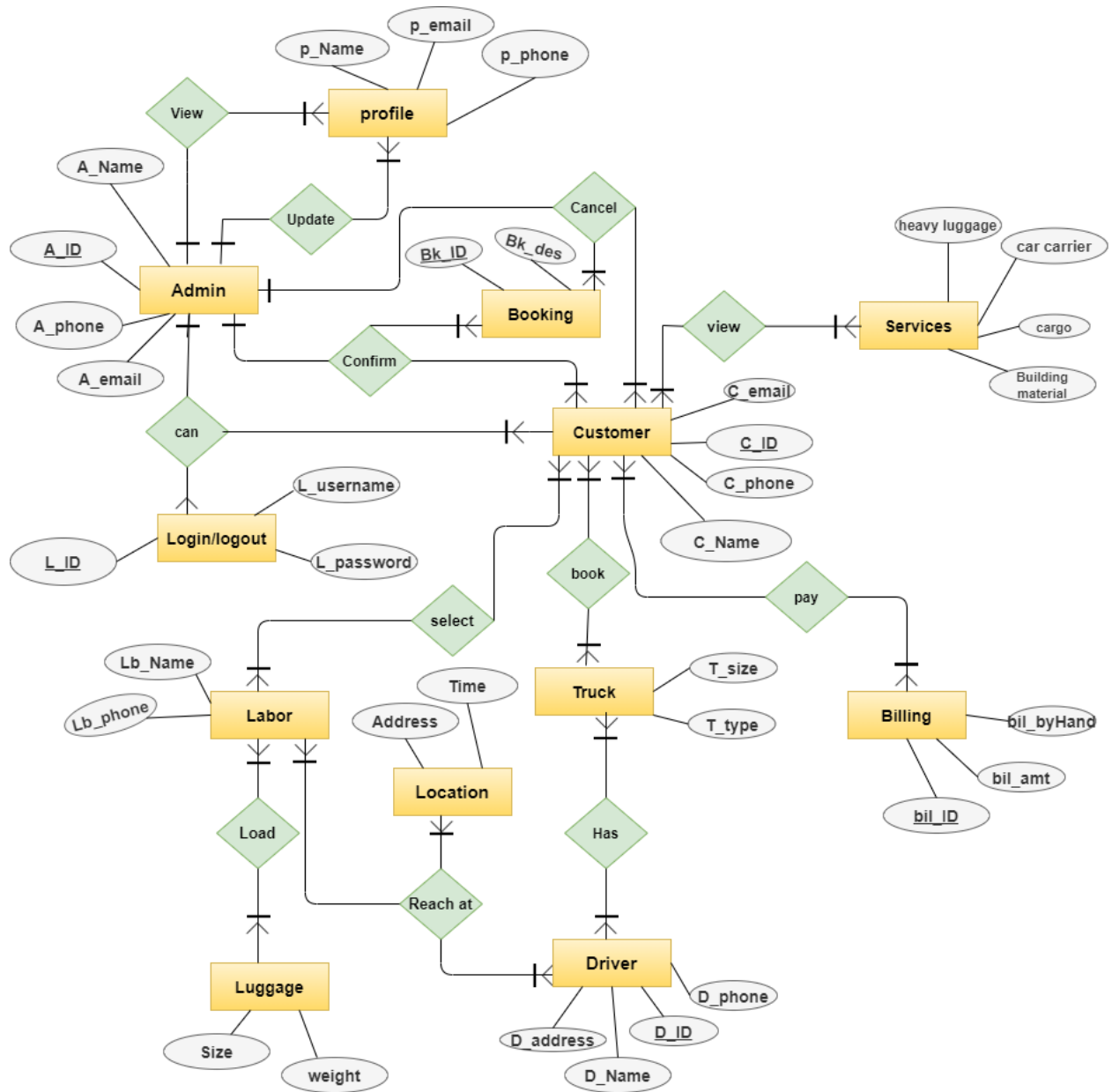
System Design

Chapter 4: System Design

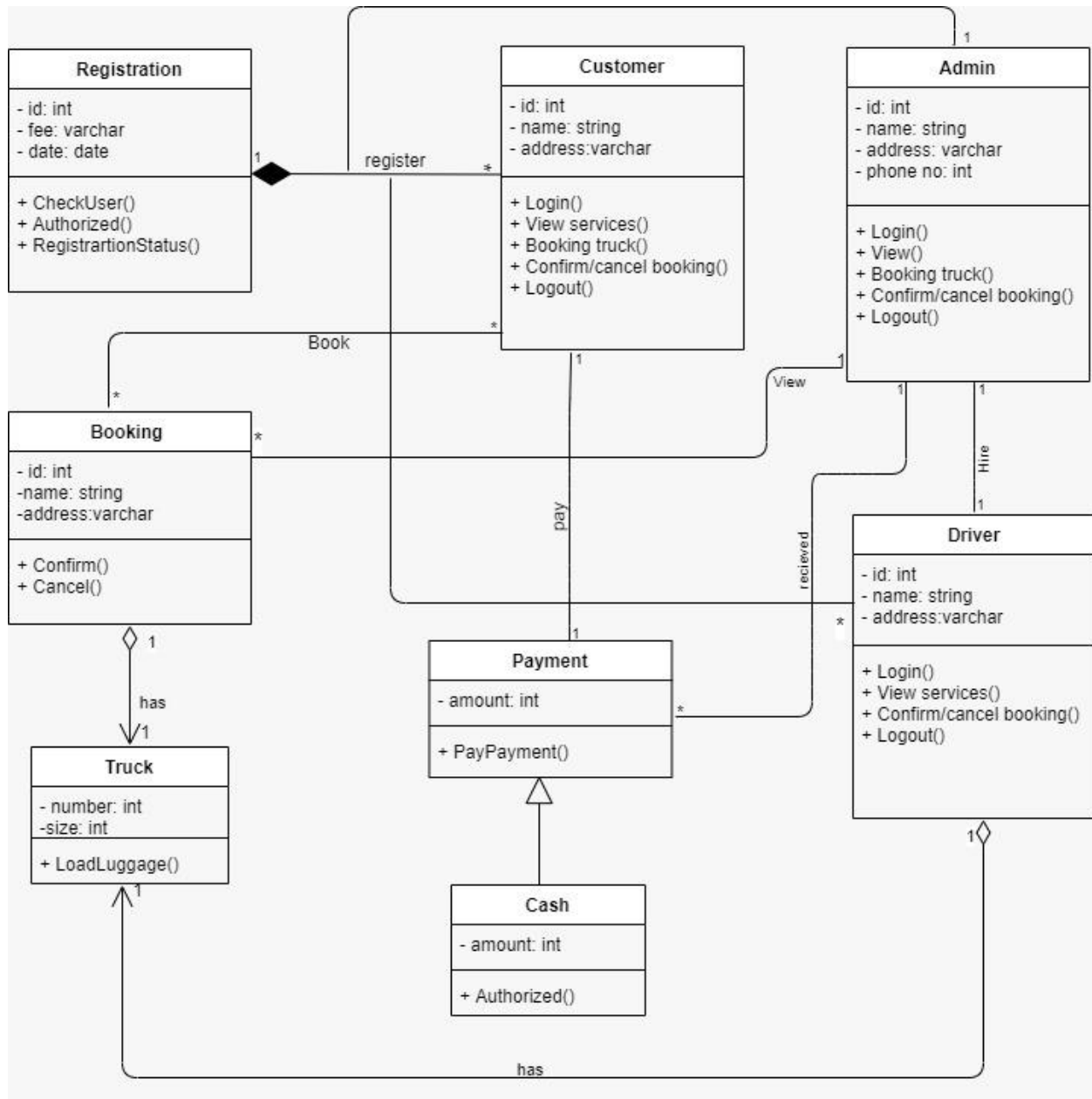
4.1. Architecture Diagram



4.3. Entity Relationship Diagram with data dictionary

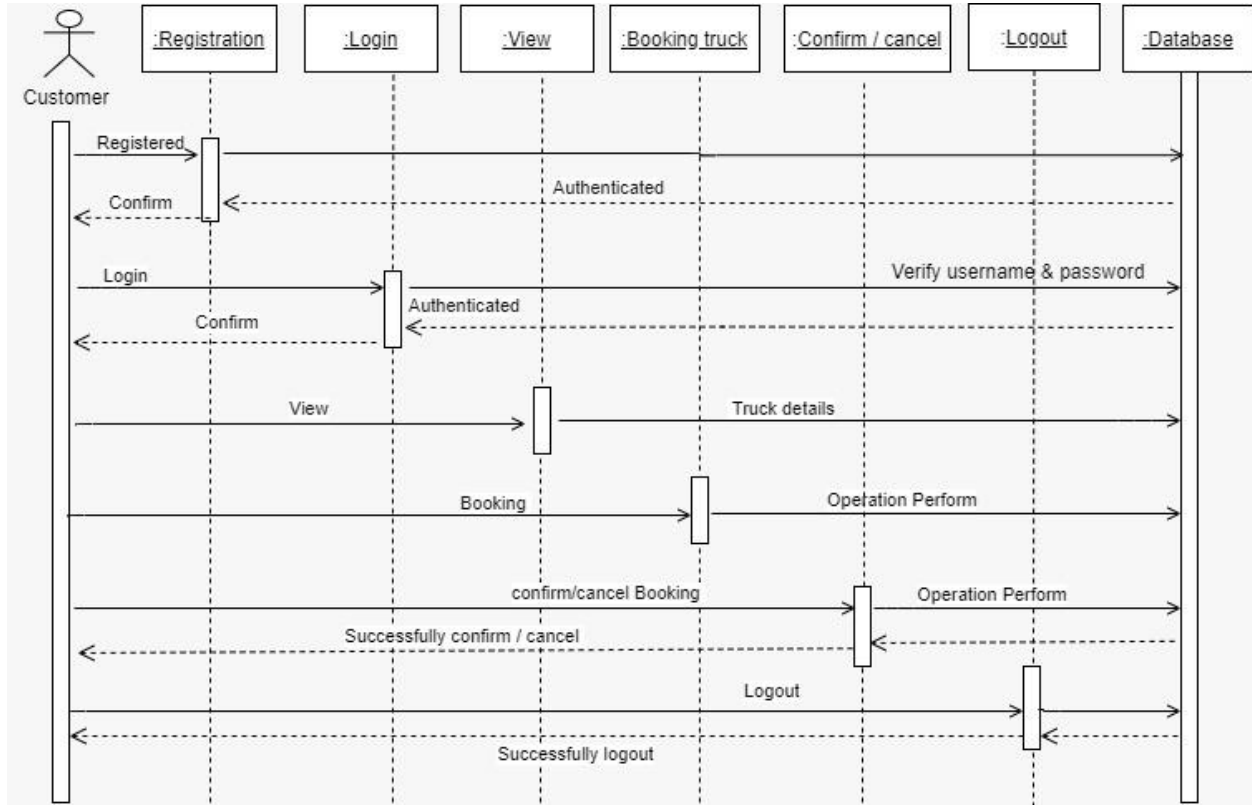


4.4. Class Diagram

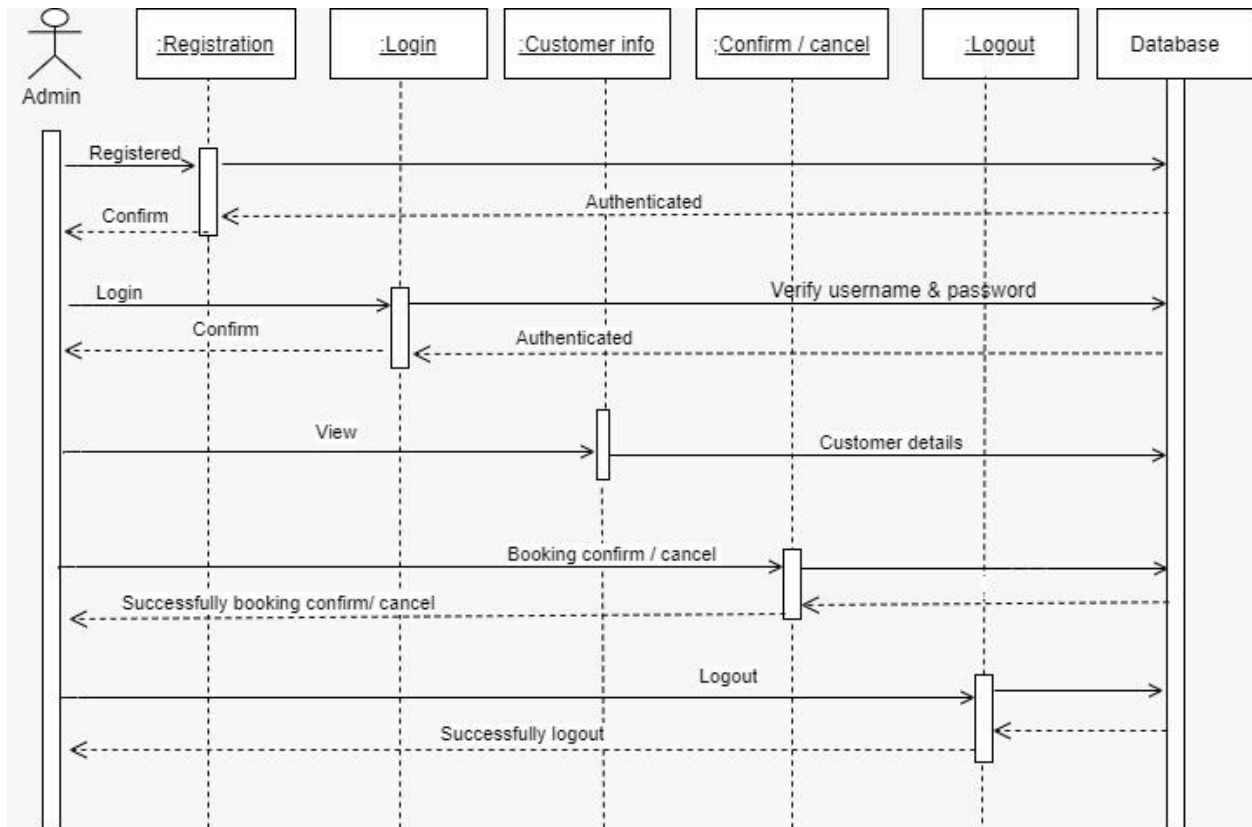


4.5. Sequence / Collaboration Diagram

Customer

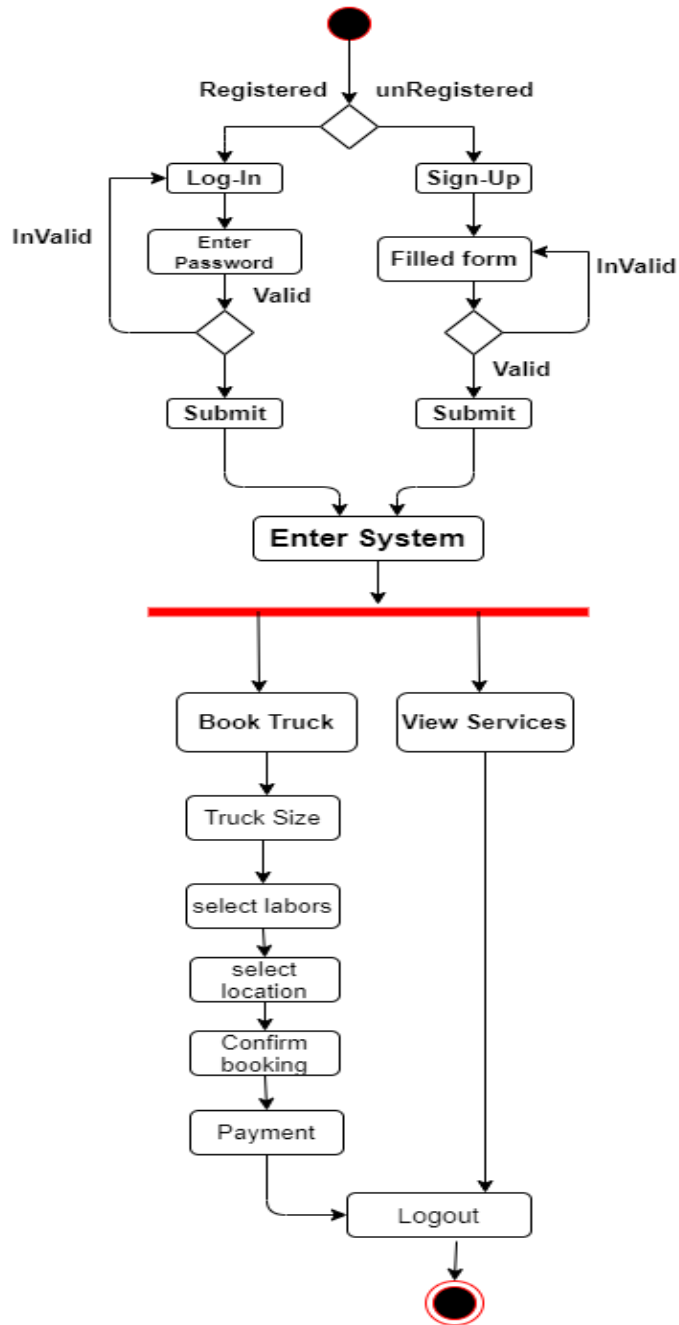


Admin

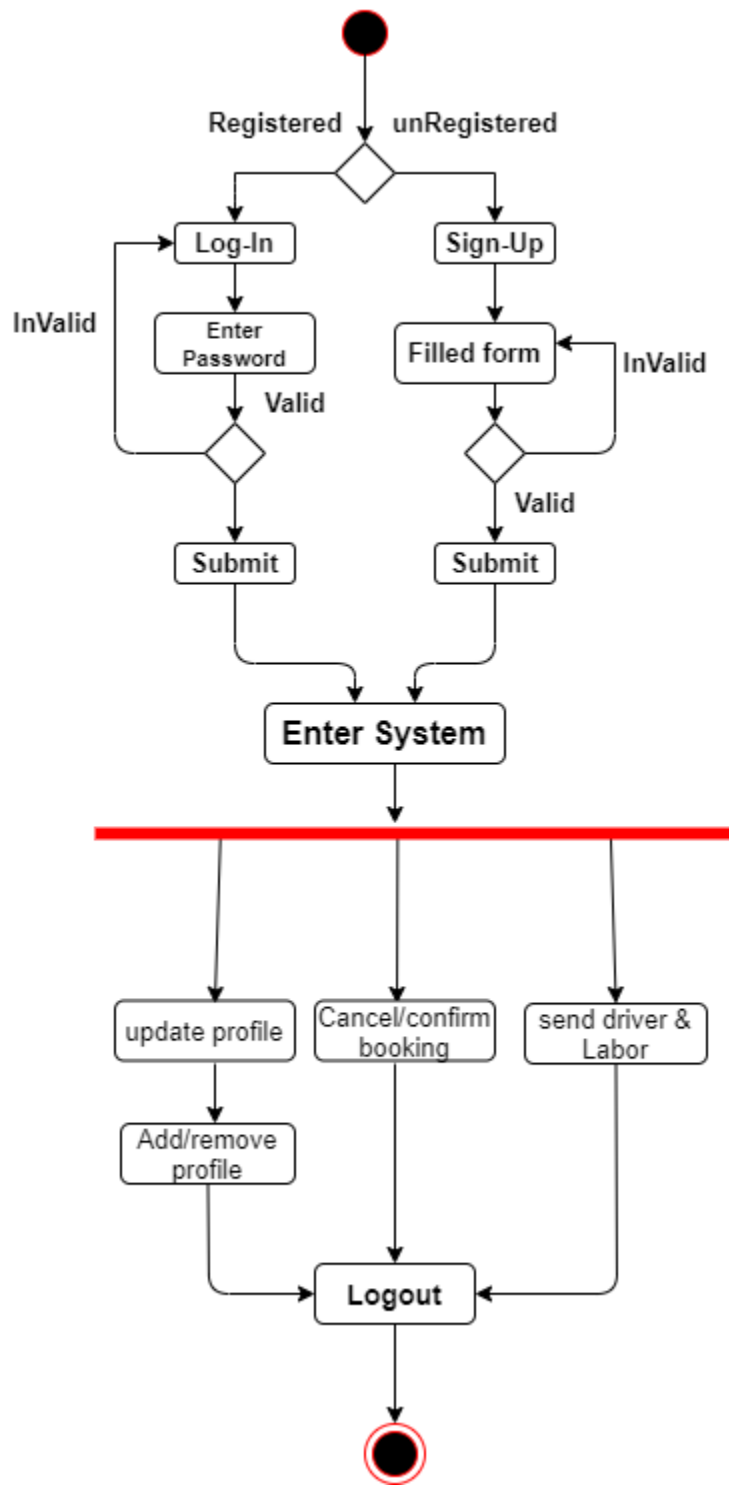


4.6. Activity Diagram

Customer

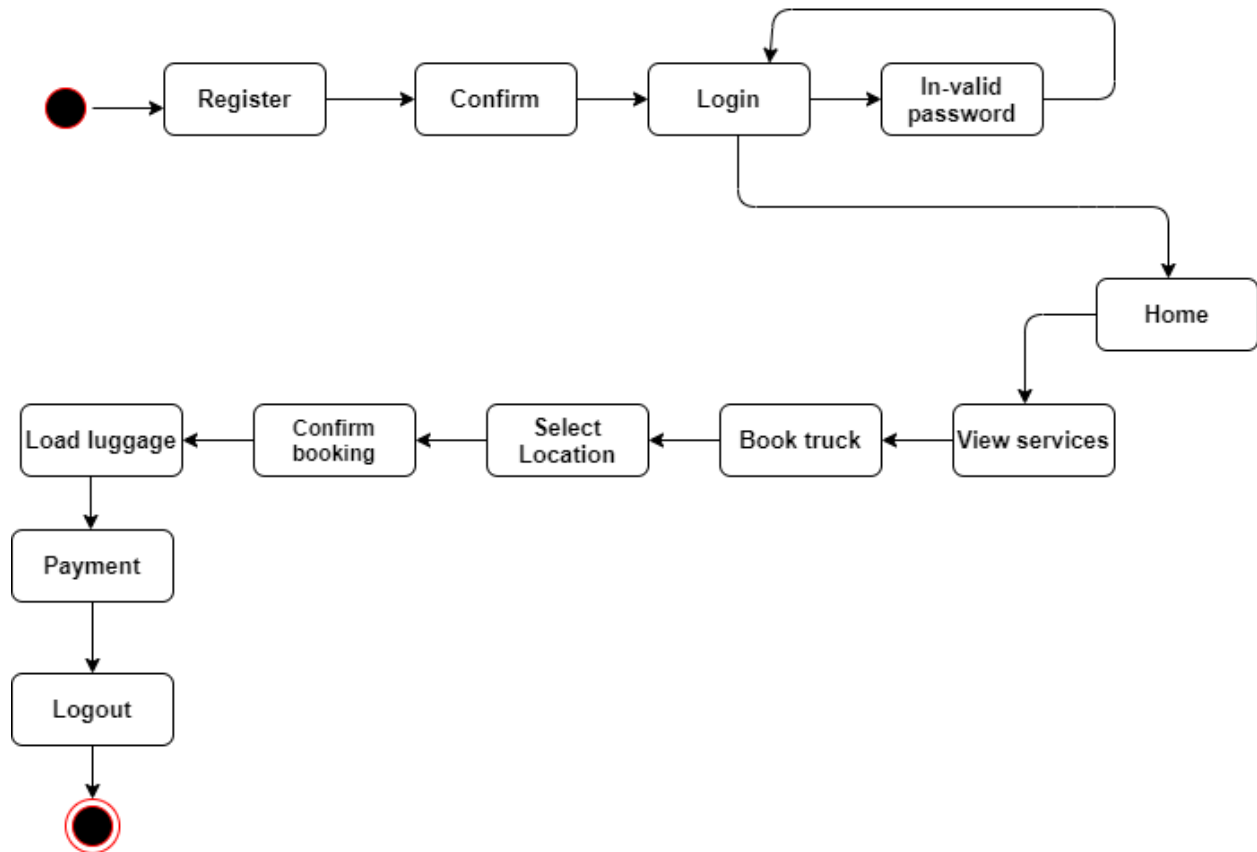


Admin

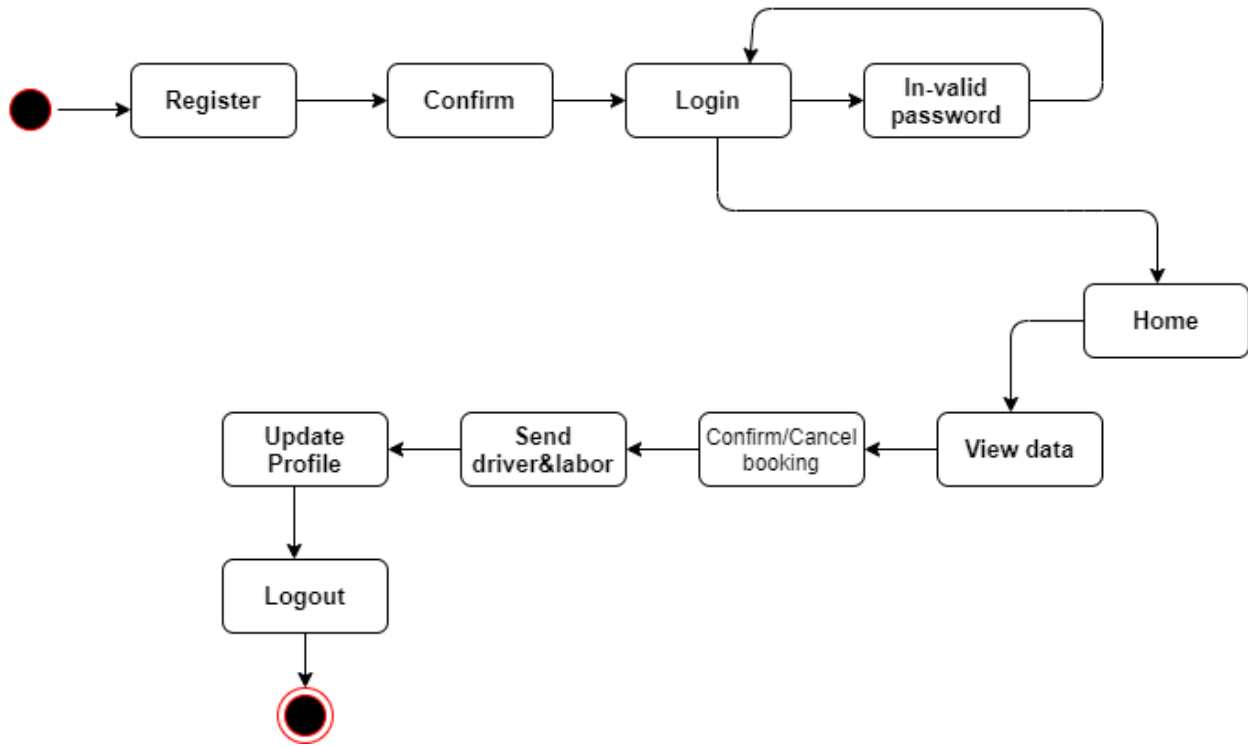


4.7. State Transition Diagram

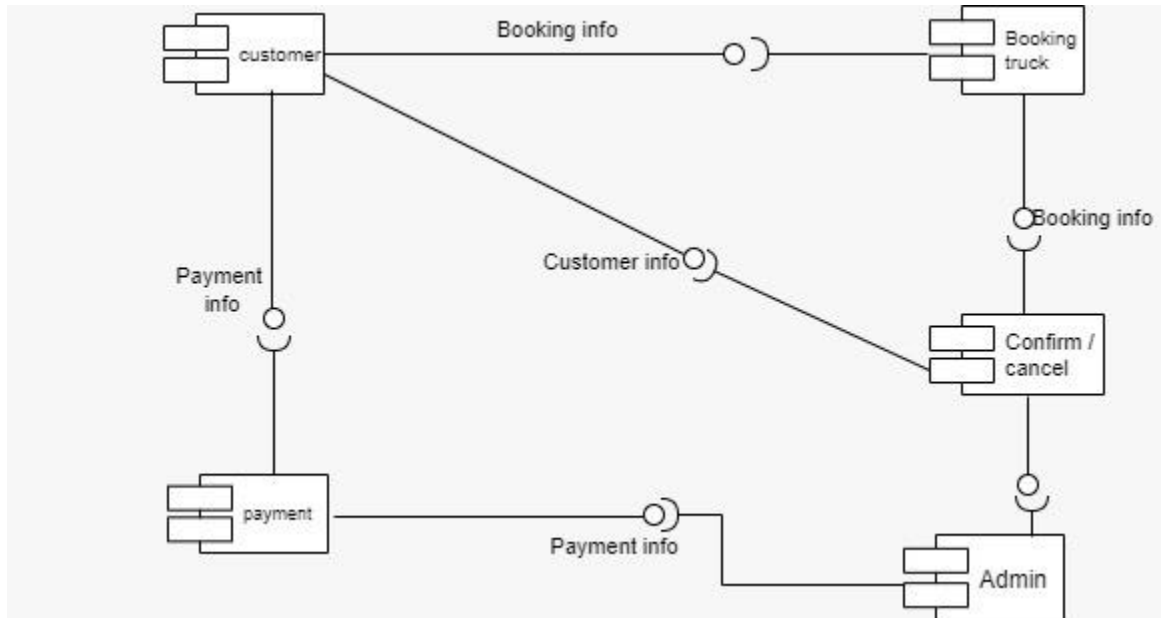
For Customer



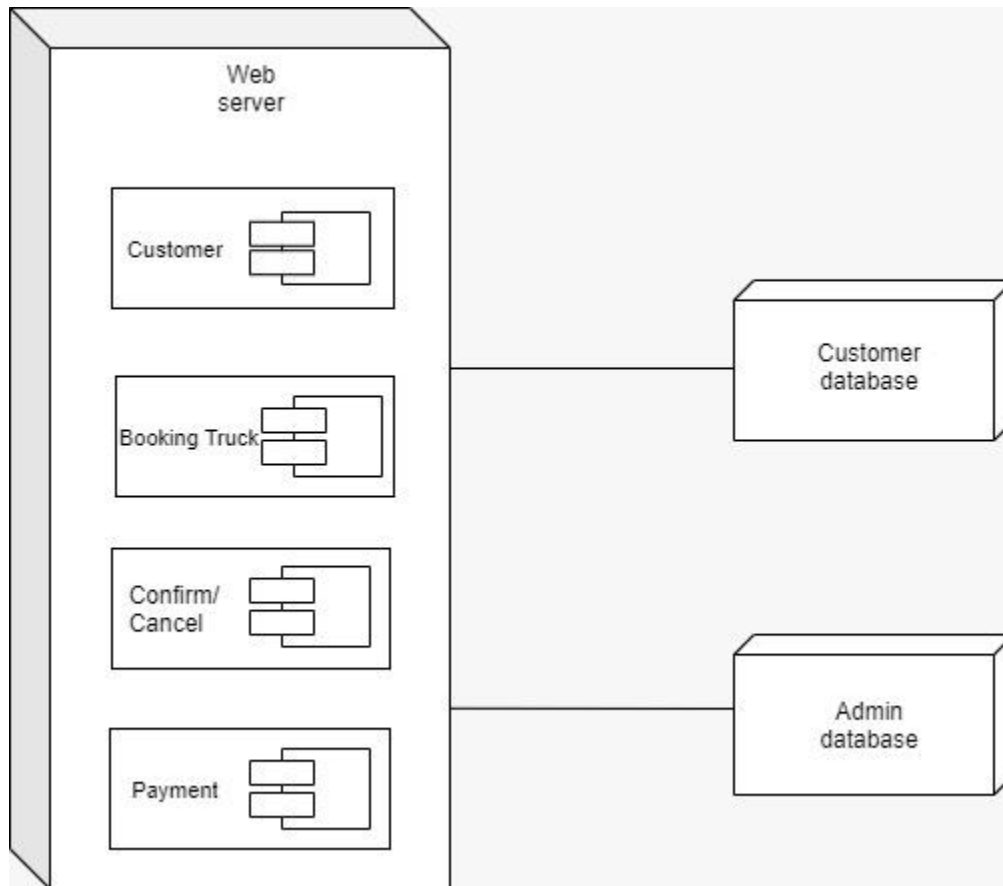
For Admin



4.8. Component Diagram

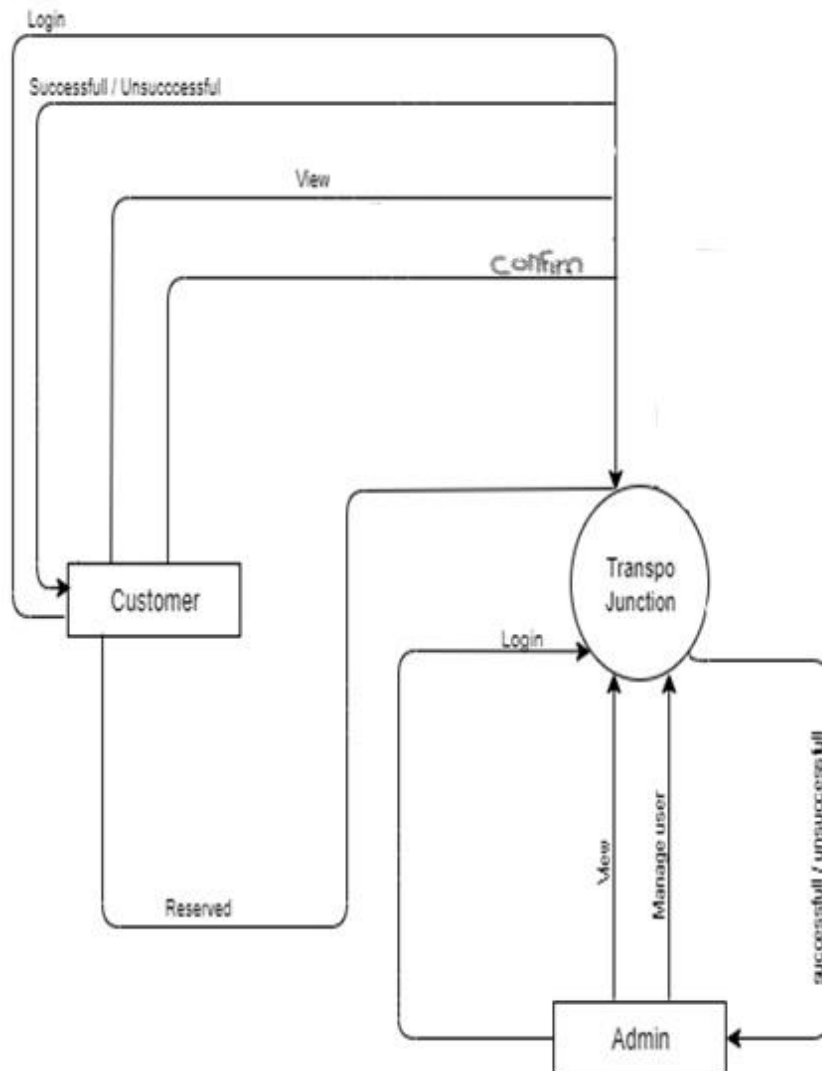


4.9. Deployment Diagram

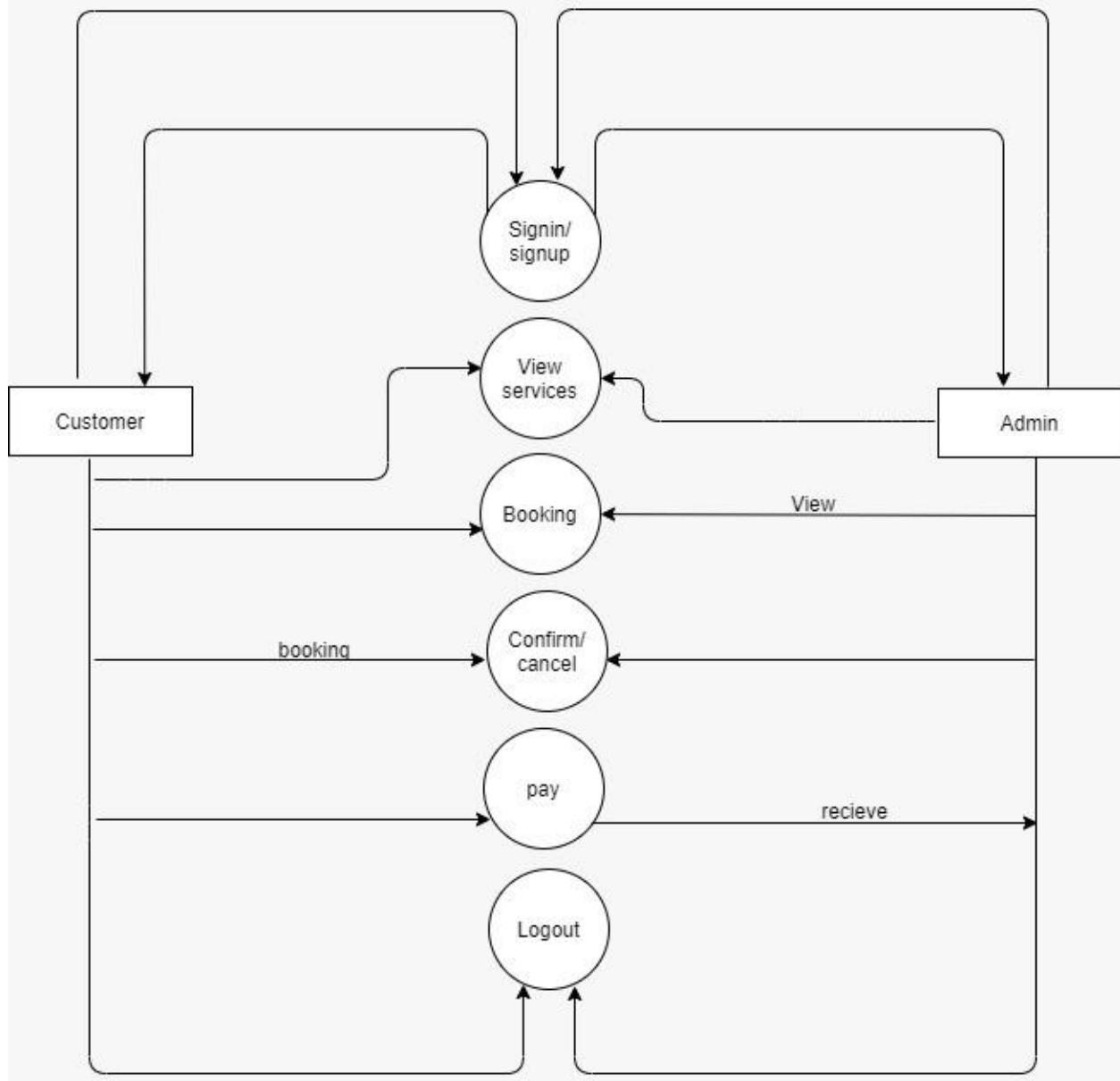


4.10. Data Flow diagram

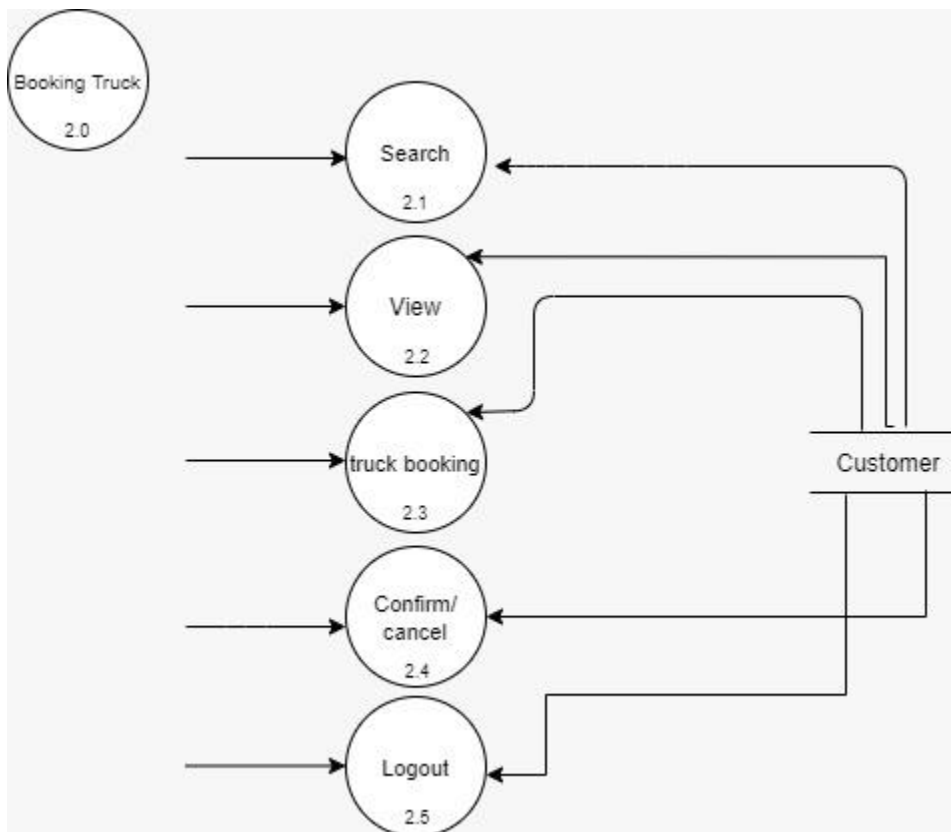
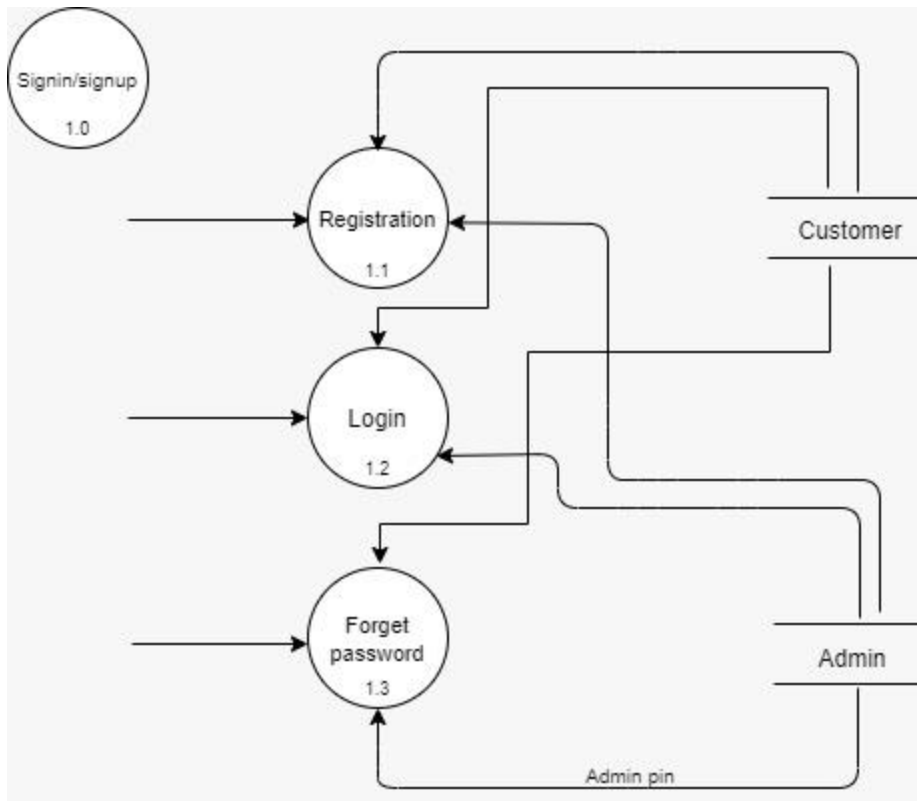
Context Level

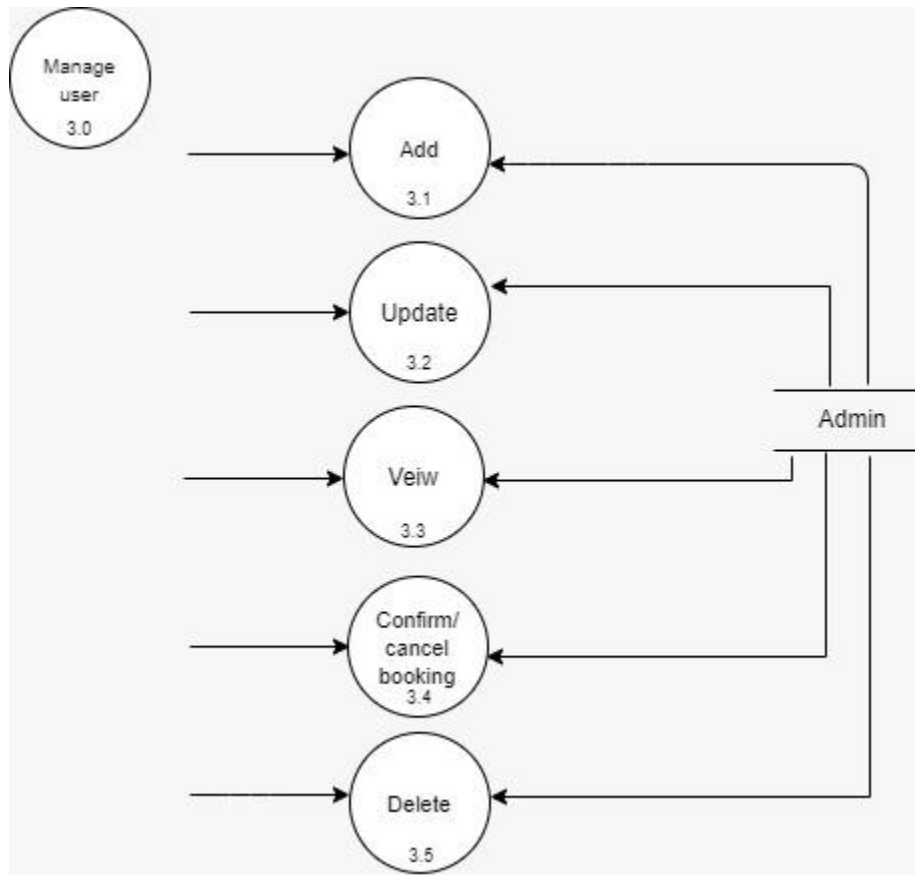


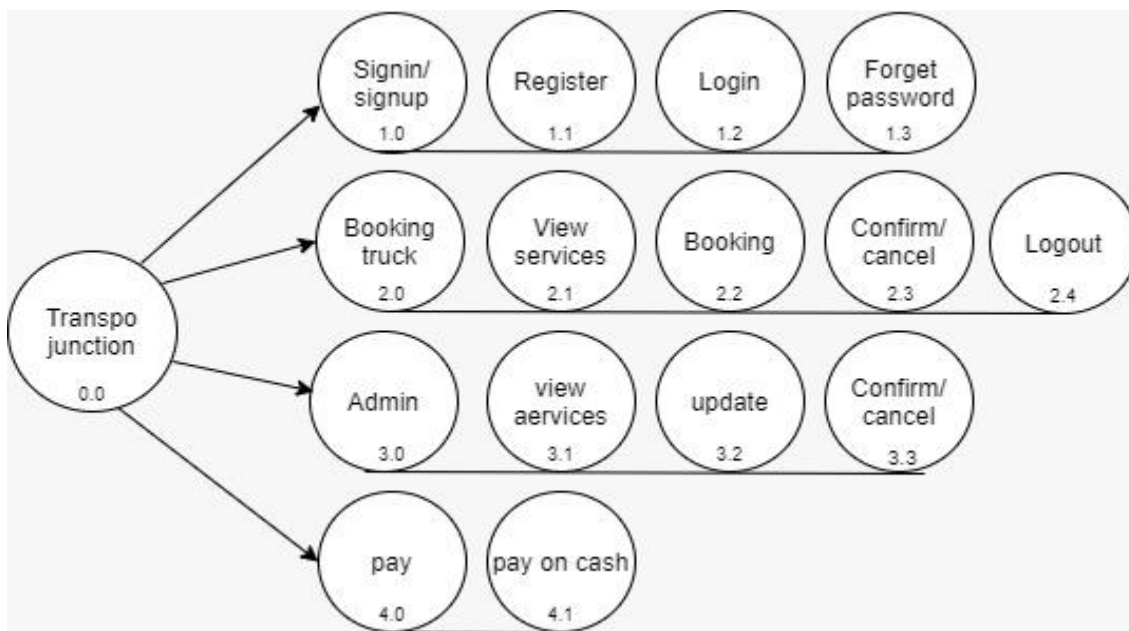
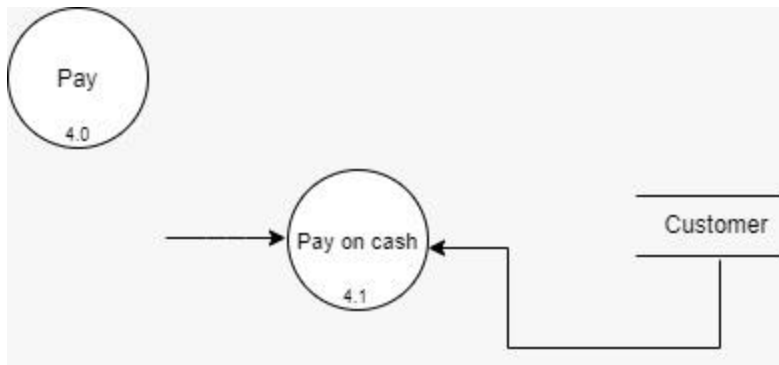
Level 0



Level 1







Chapter 5

Implementation

Chapter 5: Implementation

In this chapter we will discuss about the pseudo codes or important flow control and we tell in this chapter what we use tool or techniques use in this system.

5.1. Important Flow Control/Pseudo codes

Pseudo codes mean how over project will work its complete flow we have described it in diagrams like UML diagram sequence diagrams etc. Pseudo code is simple. You just write out the steps to be taken to perform any task.

5.2. Components, Libraries, Web Services and stubs

Components:

- **Structure of APP:**
 1. Easy to use
 2. Customer Book different trucks.
 3. User can confirm booking.

Web Server:

- Localhost

5.3. Deployment Environment

In our project we use Localhost Deployment Environment for backend and frontend.

5.4. Tools and Techniques

The technological requirements include the frontend programming tool and the backend database system.

- Coding Language: HTML, CSS, bootstrap, PHP
- Front-End: HTML, CSS, bootstrap, Java script
- Back-End: Java, PHP ,Bootstrap

5.5. Best Practices / Coding Standards

- Define scope and objective
- Write readable code
- Project planning
- HTML, bootstrap
- Java script, PHP

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

Testing is the important part of the project. In testing, we find out error in the project and correct all the error in the project. We do different type of testing to check our project.

6.1. Use Case Testing

It is the software testing that help to cover the entire system. It tests the scenario of the whole system from start to finish. It help to cover the functional requirement if the system. It is a sequence of step that helps to interact between actor and the system.

UCT:

MAIN SCENARIO	DESCRIPTION
C:customer A: admin	C: enter phone no & password A: valid password A: allow access to system
Extension	<u>Password not valid</u> A: Message display & Re-enter password

6.2. Equivalence partitioning

Equivalence partitioning is the one of the testing technique. In equivalence partitioning, input of the software or system is divided into the groups that are expected to have similar behavior, so they are likely to be proposed in the same way.

Mobile phone number:

INVALID	VALID	INVALID
>11	=11	<=12

6.3. Boundary value analysis

Boundary value analysis is a software testing technique in which tests are designed to include representatives of boundary values in a range. Boundary Value Analysis is the next part of Equivalence Partitioning for designing test cases where test cases are selected at the edges of the equivalence classes. Boundary Value Analysis is often called as a part of the Stress and Negative Testing.

6.4. Data flow testing

Data testing is the type of software testing which focus on the data variables and their values. The process is conducted to detect the error because of the incorrect usage of data variables and data values. It has nothing to do with data flow diagram. It is performed at two abstract levels: static data flow testing and dynamic data flow testing. Data flow testing has following limitations:

- Time consuming
- Costly process
- Testers provide good knowledge of programming.

6.5. Unit testing

Unit testing is the technique in which each module is tested individually to determine where the error is occurred. It is concerned with the functional correctness of each module. Doing this testing you found problem earlier, so fewer error are founds.

Each module is tested in the following strategies:

- Black box testing
- White box testing

BLACK BOX TESTING:

Black box testing is the technique in which functionality of the system is tested without internal code. Only input and output of the system is testing. This type of testing is done on functional requirement. Black box testing is used to find out different errors:

- Interface error
- Incorrect and missing error
- Error in data structure
- Behavior or performance error
- Initialization and termination error

WHITE BOX TESTING:

White box testing is the technique in which internal structure, design and coding are tested. It focuses in the flow of input and output. The following parameters are used to verify the white box testing:

- Output and input flow
- Security element
- Usability
- Design
- Coding

6.6. Integration testing

Integration testing is the technique of testing in which each module is integrated and tested as a group. The purpose of this testing is to expose defects in the interaction in the software module when they are integrated.

Test case ID	Objectives	Description	Result
1	Check the interface link between registration and	When user get their registration done.	Login page appear.

	login.		
2	Check the interface between customer login and booking truck.	When the customer does their login and click on the login button.	They will book the truck in the system.

6.7. Performance testing

Performance testing is the testing that depends upon the speed, scalability, stability and reliability. The purpose of performance testing is not finds out functional error. It only checks the performance of the system. It checks the performance of the system in term of sensitivity and particular workload.

- **Speed:**
It determines whether the software product responds rapidly.
- **Scalability:**
It determines amount of load the software product can handle at a time.
- **Stability:**
It determines whether the software product is stable in case of varying workloads.
- **Reliability:**
It determines whether the software product is secure or not.

6.8. Stress Testing

Stress testing is the type of software testing in which robustness, stability and reliability of the system is tested. This testing is done to check the how much stress system can sustain. It is done to verify the system has saved the data before crashing or not. To verify that unexpected failure do not cause security issue. It ensures to display the error message when the system is under stress. Stress testing is depends upon different scenario:

- Monitor the system behavior when maximum number of users logged in at the same time.
- All users performing the critical operations at the same time.
- All users will be Accessing the same file at the same time.
- Hardware issues such as database server down or some of the servers in a server park crashed.

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

We are going to develop a website which will be used for transporting and shifting purposes. We are providing car carrier, heavy luggage, building material transporting services. There is no platform who providing these services so it become very useful website for shifting and transporting purposes. Our goal is to provide services, save our customer's time and full fill their needs.

7.2. Achievements and Improvements

We improve our system services with the passage of time and update it on regular basis and achieve high rank on social network by performing our services in well way.

7.3. Critical Review

This system transpo junction will play a key role in daily operations by providing a network for transfer people goods. A wide range of external factors including crashes, vehicles breakdown and road maintenance may greatly influence the performance of this system.

7.4. Lessons Learnt

Lesson that we learnt from this project is that transporting and moving of goods and cars are very difficult process in our lives. Many people facing this problem. There are no proper platforms that providing such services, so we should facilitate them.

By doing this project we learn how to do team work and how to manage time. We learnt how to fulfill our responsibilities in the team work. There were a lot of experiment that we did to get on ton a better out come and those things impacted us to collect new things in to our knowledge as well as to our lives.

7.5. Future Enhancements/Recommendations

For future enhancement we planned to track the vehicles. Google map will be attached with this website for our easiness or saving time. Gradually, we increase our services to other many cities.

There were a lot of experiment that we did to get on ton a better out come and those things impacted us to collect new things in to our knowledge as well as to our lives.

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Appendices

Appendix A: Information / Promotional Material

Our promotional materials come in handy if you want to make your products repaired. Our services can practice design your products. We have a platform of highly talented graphic artists who can happily help you create great looking.

A.1. Broacher

Delay due to covid-19

A.2. Flyer

Delay due to covid-19

A.3. Standee

Delay due to covid-19

A.4. Banner

Delay due to covid-19

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- <https://www.youtube.com/watch?v=5bMdjfvONE>