

1. Introduction

a. Purpose

The purpose of this document is to present a detailed requirement for Transportation Management System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do and the constraints under which it must operate. This document is intended for both the stakeholders and the developers of the system and will be proposed to the Kargo for its approval.

b. Glossary

Transporter	User who owns a truck(s)
Shipper	User who ship goods

c. Project Scope

In this system, shippers can create shipment order based on the information provided by the transporter. Here we will be able to track each shipment by using this application. And transporter can manage their resources such as drivers and trucks.

d. Overview Document

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2. Overall Description

a. Product Perspective

Transportation Management System manage and store the following data :

- Trucks

It include required data of truck such as license number, license type, truck type, production year, photos of vehicle registration certificate and kir.

- Driver

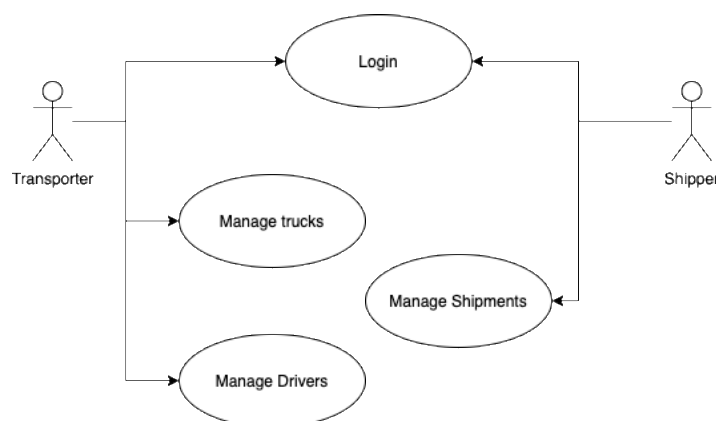
It include required data of driver such as name, phone number, photos of id card and driver license.

- Shipments

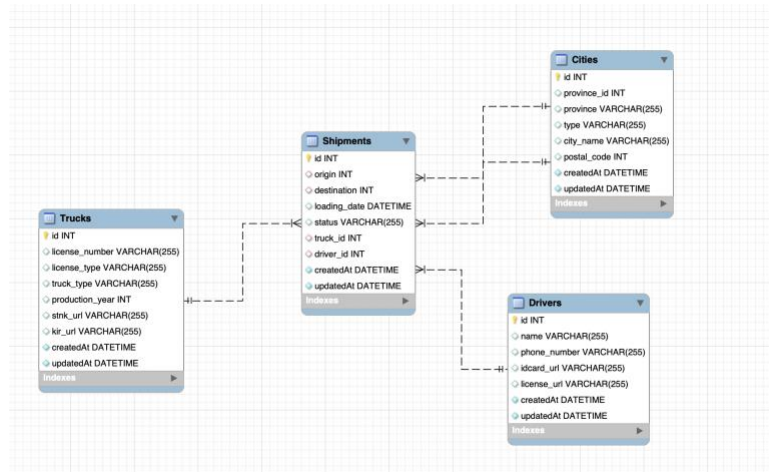
It include required data of driver such as shipment number, truck license number, driver name, origin and destination of shipment, and loading date.

b. Product Features.

The major feature for Transportation Management System as shown in below use case diagram and entity relationship diagram



Use case diagram



Entity Relationship Diagram

c. User Characteristics

Users of the system that have shipper role should be able to retrieve shipments information, create shipments and update shipment data. And user that have role transporter should be able to retrieve trucks and drivers data, create it, and update it.

d. Operating Environment

Client : run on any modern browser (for IE run on > IE 11)

Server : run on nodejs runtime. Recommended on unix-based operating systems.

For tech stack detailed as below :

Frontend : React

Backend : Nodejs with Express framework

Database : PostgreSQL.

3. Functional Requirements

a. Transporter

- Add data truck
- Get list of trucks
- Update data truck
- Add data driver
- Get list of drivers

- Update data driver

b. Shipper

- Add data shipment
- Update data shipment

4. Nonfunctional Requirements

a. Security

The database server has isolated environment so only accessible by backend system.