# Software Requirements Specification(SRS)

## TRANSPORT COMPANY COMPUTERIZATION

**-- TEAM VENUS**

P. PRAVALLIKA ~ R200869
E. NISITHA ~ R200511
M.SREELATHA ~ R200865
D.VENKATESWARA NAIK ~ R200491
S.UBAIDUR RAHMAN ~ R200668

# Table of Contents:

## Introduction:

The Transport Company Computerization (TCC) system aims to automate the bookkeeping activities of a transport company, which owns a fleet of trucks and has offices in various cities. The system will streamline the process of managing consignments, truck allocation, consignment tracking, and performance monitoring.

## Purpose:

The purpose of the TCC system is to computerize the operations of the transport company, ensuring efficient handling of consignments, automated billing, optimized truck usage, and real-time reporting of operations and truck status.

## Intended Audience:

- The Transport Company Managers
- Branch Office Managers
- Administrative Staff handling consignment data
- Truck Allocators and Dispatchers

## Stakeholders:

- **Company Managers:** Responsible for overall operation and performance management.
- **Branch Managers:** Handle day-to-day activities, including consignment and truck management.
- **System Users:** Office employees who input consignment data, track shipments, and manage trucks.

## Product Vision:

The vision for the TCC system is to provide a comprehensive, user-friendly platform that automates the entire consignment and truck management process, from data entry to dispatch and performance monitoring.

## Vision Statement:

To revolutionize the transportation industry by delivering cutting-edge, intuitive software solutions that streamline operations, enhance efficiency, and ensure seamless connectivity across all logistics platforms. We envision a future where technology drives smarter, more sustainable, and customer-centric transport systems, enabling businesses to move goods faster, safer, and with greater transparency.

## Technologies:

1.HTML
2.CSS
3.BootStrap
4.Java script
5.Nodejs
6.express
7.MySql
8.Git

## Key Features:

**1. Consignment Management:**
- System records details such as volume, sender address, receiver address, and destination of the consignment.
- Transport charges are automatically calculated based on volume and destination.
- The system generates a bill once the details are entered.

**2. Truck Allocation:**
- When the total consignment volume to a specific destination reaches 500 cubic meters, the system automatically assigns the next available truck.
- The system ensures that a truck remains at a branch until enough cargo is available for full loading.

**3. Truck Status Tracking:**
- Managers can view the real-time status of all trucks across the network.
- Reports on truck usage over a specified period can be generated for review.

**4. Consignment Dispatch:**
- When a truck is fully loaded, the system generates a printout with consignment details, including consignment number, volume, sender’s name and address, and receiver’s name and address.

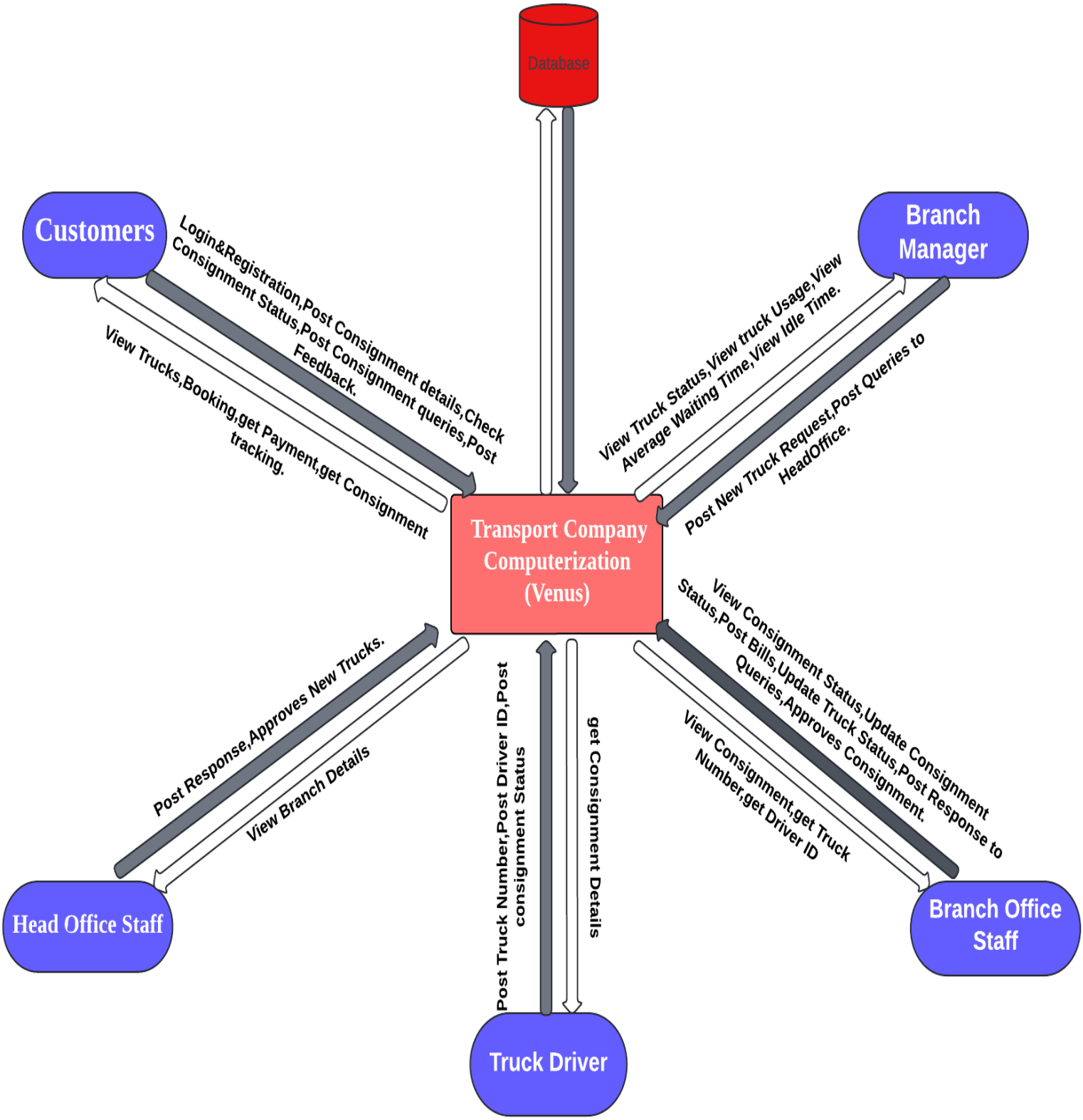
**5. Performance Monitoring:**
- The system provides key metrics such as the average waiting period for consignments and the average idle time for trucks.
- This data helps managers make decisions about fleet expansion and operational efficiency improvements.

**6. Revenue and Reporting:**
- The manager can query the system to see the volume of consignments handled for each destination and the revenue generated from these operations.

## Context Diagram:

context diagram shows the interaction between a system and other actors(external factors) with which the system is designed to interface.

it gives an overview of who are included in the process simply like an entity-relationship diagram.


Database
Customers
Login&Registration,Post Consignment details,Check Consignment Status,Post Consignment queries,Post Feedback.
View Trucks,Booking,get Payment,get Consignment tracking.
Branch Manager
View Truck Status,View truck Usage,View Average Waiting Time,View Idle Time.
Post New Truck Request,Post Queries to HeadOffice.
Transport Company Computerization (Venus)
Post Response,Approves New Trucks.
View Branch Details
Head Office Staff
Post Truck Number,Post Driver ID,Post consignment Status
get Consignment Details
Truck Driver
View Consignment Status,Update Consignment Status,Post Bills,Update Truck Status,Post Response to Queries,Approves Consignment.
View Consignment,get Truck Number,get Driver ID
Branch Office Staff

# External Interface Requirements:

**1.User Interfaces:**
The user interface of the software will be easy to use and interactive. Each person will have to login using his own login id and password. Only after that, he will be able to make any changes to the database or have his/her queries answered.

**1.1. Employees:** They will be given the access to do the following jobs:
- Enter details of a consignment like type, volume, details of sender and receiver, like name, address and a Government ID.
- They will be able to see the truck details present at their center.
- They would be able to view the allotment of the truck and take a printout of the details of consignment number, volume, sender's name and address and receiver's name and address to be forwarded along with the truck.

**1.2. Manager:** Manager will be given the admin rights. He:
- Can do all the tasks that an employee can do.
- Can view status of all consignments and truck status at a given time.
- Can view the corresponding revenue generated in a particular center as well as over all centers.
- Can see the waiting time of a consignment.
- Can appoint new employees and add them to employees database or remove any employee from the company as well as from the database.
- He will give an employee an username and a password and he can also reset the password of an employee.

**2. Hardware Interfaces:**
The storage of the data on the physical drive will depend on the tools used for the development of software. The software will run properly on a computer having support for Java applications and also the database to be used. The computer should have a minimum of 2GB RAM (preferably 4GB or more) and 20GB free space (preferably 50GB or more). More memory may be required if the database is too large.

**3. Software Interfaces:**
Java will be used in the development of the software. A database will also be required to store the employee information, consignment details and truck information in a logical manner. Java applications must be able to communicate with the database properly. All major internal dependencies should be taken into account. Internet connection is required for the communication of computers at different branches.

**4.Communications Interface:**
Communication plays a major role in the software performance. All information regarding the trucks and consignments are sent through networks. So the computers at different and the central machine must be able to communicate securely and quickly over the network. The software must take care of the communication protocol to be used or the encryption to be followed to ensure secure communication among different branches.

## Non-Functional Requirements:

**1. Reliability:**
- The system must provide accurate data at all times and ensure proper truck allocation without manual intervention.

**2. Usability:**
- The user interface must be intuitive and easy to use for office staff, with clear prompts for entering consignment details and generating reports.

**3. Availability:**
- The system should be available 24x7, ensuring continuous operations across all branches.

**4. Accessibility:**
- The system must support multiple users accessing data simultaneously from different locations.

**5. Performance:**
- All operations, such as querying truck status or generating reports, should be processed quickly, minimizing delays in dispatch and allocation.

**6. Security:**
- Sensitive data, such as financials and customer information, must be secured against unauthorized access and breaches.

**7. Platform Compatibility:**
- The system should be compatible with various operating systems and browsers, ensuring accessibility across different platforms.

## Conclusion:

This SRS document provides a comprehensive outline for developing the Transport Company Computerization Software.

It is essential to review and update the document regularly to ensure it meets the evolving needs of the transport company and its users.

and also it includes different entities with different functionality which helps in easy project development.