# Software Requirement Specification for

# **Trucking Company Management System**

CS 425 Software Engineering

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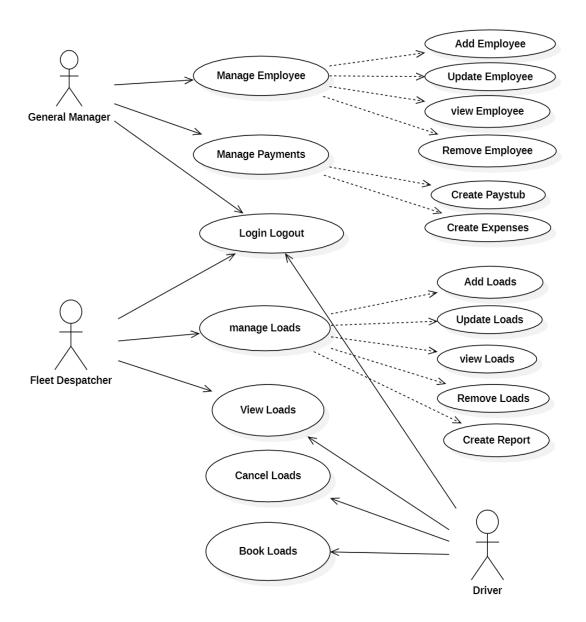
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## **Use Case Model**

## > Use Case Diagram

Trucking Company Management System



#### **Use Case Description** $\triangleright$

| Use Case Number: 1 |  |
|--------------------|--|
| Name               | Manage Employees   |
| Brief description  | This use case allows the General Manager to create, Read/View and Update profile for employees |
| Actors             | General Manager  |
| Preconditions      |  |

#### Preconditions

The General Manager must log in to the system

#### Flows of Events

#### 1. Basic Flows

## 1.1.0 Create Employee Profile

| Step | User Actions   | System Actions   |
|------|--|--|
| 1    | The General Manager calls the create employee profile command                      | The system displays the create employee profile form with the fields for First Name, Last Name, Id card number, email, password.   |
| 2    | The General Manager fills out the form and requests the system to save the details | The system verifies that there's no other profile in the database with the same email address and saves the employee and returns the success message on success or a fail message in case of failure. In case another profile exists with the email address, the system returns the message indicating a duplicate entry exists. |

#### Postconditions

The employee profile is persisted in the system

#### **Business Rules**

No duplicate employee profiles. A unique profile is identified by email address.

## 1.1.1 Read/view Employee Profile

| Step | User Actions  | System Actions   |
|------|---|--|
| 1    | The General Manager selects to view a list of employee profiles                                 | The system returns a list of all employee profiles.  |
| 2    | The General Manager selects to view a profile of one of the employees from the list of profiles | The system returns the profile of the employee as a string with the names (FirstName and LastName), ID card number, and email. |
|      |   |  |

## 1.1.2 Update/Edit Employee Profile

| Step | User Actions   | System Actions  |
|------|--|---|
| 1    | The General Manager selects to view a list of employee profiles  | The system returns a list of all employee profiles.   |
| 2    | The General Manager selects the profile of the employee they want to update                            | The system displays an editable employee profile from pre-populated with the employee profile details |
| 3    | The General Manager updates the fields they want to update and requests system to save the new details | The system updates the record and returns the success message or a fail message on exception.         |

The employee profile will be updated

## **Business Rules**

The email field should be unwritable.

## 1.1.3 Delete Employee Profile

| Step | User Actions   | System Actions  |
|------|--|---|
| 1    | The General Manager selects to view a list of employee profiles                                  | The system returns a list of all employee profiles.   |
| 2    | The General Manager selects to delete an employee profile from a list of employee profiles       | The system displays a confirmation dialogue window  |
| 3    | The General Manager selects OK on the confirmation dialog window to confirm deleting the profile | The system deletes the profile. The system returns message a success message on success or failure message. |

#### Postconditions

The employee profile will be deleted

#### **Business Rules**

| Use Case Number: 2                            |   |
|---|---|
| Name  | Manage Payment  |
| Brief description                             | This use case allows the Administrator to manage each payments and expenses |
| Actors  | General Manager   |
| Preconditions                                 |   |
| The General Manager must log in to the system |   |

#### Flows of Events

#### 1. Basic Flows

| 1.1.0 | 1.1.0 Create a Paystub   |   |  |
|-------|--|---|--|
| Step  | User Actions   | System Actions  |  |
| 1     | The Administrator selects the 'Create Paystub command                              | The system displays the Paystub form with the required fields.  |  |
| 2     | The Administrator fills out the form and requests the system to save every detail. | The system verifies all fields are filled as required and saves the paystub and returns the success message on success or a fail message in case of failure.  |  |
| Posto | onditions  |   |  |
| The p | aystub details are persisted in the system   |   |  |
|       |  |   |  |
| Busin | Business Rules   |   |  |
| No du | plicate paystub details. A unique paystub is                                       | identified by its File Number.  |  |
|       |  |   |  |
| 444   | O  |   |  |
| 1.1.1 | Create Expenses Form   |   |  |
| Step  | User Actions   | System Actions  |  |
| 1     | The General Manager select the Create Expenses list command.                       | The system displays the Expenses form with the required fields.   |  |
| 2     | The Administrator selects the delete command associated with the car to be deleted | The system verifies all fields are filled as required and saves the expenses and returns the success message on success or a fail message in case of failure. |  |
| Posto | conditions   | Tallaro.  |  |

| Use Ca  | Use Case Number: 3                           |   |                |
|---------|--|---|----------------|
| Name    |  | Manage Loads  |                |
| Brief d | escription                                   | This use case allows the Fleet Despatcher to manage loads to book a car |                |
| Actors  | i  | Fleet Despatcher  |                |
| Precor  | Preconditions                                |   |                |
| The Fle | The Fleet Despatcher to log on to the system |   |                |
| Flows   | Flows of Events                              |   |                |
| 3. Bas  | ic Flows                                     |   |                |
| 3.1.0 A | 3.1.0 Add loads                              |   |                |
| Step    |  | User Actions  | System Actions |

The expenses details are persisted in the system

| 1 | The Fleet Despatcher calls the create employee profile command                      | The system displays the create load form with the fields for Load Id number, Destination From/to, Price  |
|---|---|--|
| 2 | The Fleet Despatcher fills out the form and requests the system to save the details | The system verifies all fields are filled as required and saves the car and returns the success message on success or a fail message in case of failure. |
|   |   |  |

The load record is persisted in the system

#### **Business Rules**

No duplicate car details. A unique car is identified by its Load Id number.

#### 3.1.1 Read/view Loads

| Step | User Actions  | System Actions   |
|------|---|--|
| 1    | The Fleet Despatcher selects to view a list of loads      | The system returns a list of all loads.  |
| 2    | The Fleet Despatcher selects to view a load from the list | The system returns the summary of the load as a string with Load Id number, Destination From/to, Price |

#### **Postconditions**

## 3.1.2 Update/Edit Load Form

| Step | User Actions   | System Actions  |
|------|--|---|
| 1    | The Fleet Despatcher selects to view a list of loads   | The system returns a list of all loads  |
| 2    | The Fleet Despatcher selects to view a load from the llist they want to update               | The system displays an editable load form from pre-populated with the load details            |
| 3    | The admin updates the fields they want to update and requests system to save the new details | The system updates the record and returns the success message or a fail message on exception. |

#### **Postconditions**

The load form will be updated

## 3.1.3 Delete Loads

| Step | User Actions   | System Actions                         |
|------|--|--|
| 1    | The Fleet Despatcher selects to view a list of loads | The system returns a list of all loads |

| 2     | The Fleet Despatcher selects to delete a | The system displays a confirmation dialogue     |  |
|-------|--|---|--|
|       | load from a list of available loads      | window  |  |
| 3     | The Fleet Despatcher selects OK on the   | The system deletes the load. The system returns |  |
|       | confirmation dialog window to confirm    | message a success message on success or         |  |
|       | deleting the load                        | failure message.                                |  |
| Posto | Postconditions                           |   |  |

The selected load will be deleted

#### **Business Rules**

## 3.1.4 Create report

| Step | User Actions  | System Actions  |
|------|---|---|
| 1    | The Fleet Despatcher selects the 'Create Report command                               | The system displays the Report form with the required fields.   |
| 2    | The Fleet Despatcher fills out the form and requests the system to save every detail. | The system verifies all fields are filled as required and saves the report and returns the success message on success or a fail message in case of failure. |

#### **Postconditions**

The Report details is persisted in the system

#### **Business Rules**

| Use Case Number: 4 |  |
|--------------------|--|
| Name               | Book Loads   |
| Brief description  | This use case allows the Driver to view and choose the available loads |
| Actors             | Driver   |
| Droponditions      |  |

#### **Preconditions**

The Driver must log in to the system

#### Flows of Events

#### 4. Basic Flows

## 4.1.0 View Booking Detail

| Step | User Actions                                 | System Actions  |
|------|--|---|
| 1    | The Driver selects the 'Search Load' Command | The system displays list of available loads from database             |
| 2    | The driver selects "Select" command          | The system displays the load agreement form with the required fields. |

| 3  | The Driver fills out the form and selects<br>"send" Command | The system verifies all fields are filled as required and saves the agreement form and returns the success message on success or a fail message in case of failure. |  |  |
|--|---|---|--|--|
| Posto  | Postconditions  |   |  |  |
| The Driver receives a receipt of assigned load information |   |   |  |  |
|  |   |   |  |  |
| Business Rules   |   |   |  |  |
| The list of Loads has to be order by Load Id number        |   |   |  |  |
|  |   |   |  |  |

| Use C               | Use Case Number: 5   |  |  |  |
|---------------------|--|--|--|--|
| Name                | me Cancel Loads  |  |  |  |
| Brief description T |  | This use case allows the Driver to cancel assigned Load task booking |  |  |
| Actors Driver       |  | Driver   |  |  |
| Preco               | Preconditions  |  |  |  |
| The D               | The Driver must log in to the system   |  |  |  |
| Flows               | Flows of Events  |  |  |  |
| 5. Bas              | 5. Basic Flows   |  |  |  |
| 5.1.0               | 5.1.0 Cancel Bookings  |  |  |  |
| Step                |  | User Actions   | System Actions   |  |
| 1                   | The Driver selects the 'Search Loads' Command                                      |  | The system displays a search form for Loads with the field of Load Id number   |  |
| 2                   | The Employee fills out the search form for Loads and requests the system to search |  | The system verifies that there is a load record in the database with the same Load Id number and displays the booking information of that Load ID. |  |
| 3                   | The Employee selects 'Cancel Load' command   |  | The system deletes the Load information and returns the success message on success or a fail message in case of failure.                           |  |

| Use Case Number: 6 |  |  |
|--------------------|--|--|
| Name               | View Loads   |  |
| Brief description  | This use case allows the Fleet Despatcher and Driver to view the available loads |  |

A assigned load is canceled

| Actor                                     | S              | Fleet Despatcher and Driver                                |  |  |
|---|----------------|--|--|--|
| Preco                                     | Preconditions  |  |  |  |
| The F                                     | leet Despatch  | er and Driver must log in to the                           | e system   |  |
| Flows of Events                           |                |  |  |  |
| 6. Bas                                    | 6. Basic Flows |  |  |  |
| 6.1.0 View Loads                          |                |  |  |  |
| Step                                      |                | User Actions   | System Actions   |  |
| 1   |                | espatcher and Driver selects of available loads            | The system returns a list of all available loads on database |  |
| 2   |                | espatcher and Driver selects d summary information from ds | The system displays a load summary file                      |  |
| Postconditions                            |                |  |  |  |
| The load list will be displayed on screen |                |  |  |  |
|   |                |  |  |  |

## 2. Glossary

| Driver           | People who Pick up goods                             |  |
|------------------|--|--|
|                  | and materials  |  |
| Fleet Despatcher | A person who pre plan loads for drivers.             |  |
| General manager  | A person who manages Employees and Payments          |  |
| Booking          | Booking is a reservation detail of a loads           |  |
| Loads            | Heavy materials that has to be shipped and delivered |  |