**Software Requirement**

**Specification**

**for**

**Trucking Company Management System**

**CS 425 Software Engineering**

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# **Use Case Model**

## **Use Case Diagram**

**A close up of a map

Description automatically generated**

## **Use Case Description**

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| **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** | | | |
| 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 | | | | | |
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| **Business Rules** | | | | | |
| No duplicate employee profiles. A unique profile is identified by email address. | | | | | |
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| **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. | |
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| **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. | |
| **Postconditions** | | | | |
| The employee profile will be updated | | | | |
| **Business Rules** | | | | |
| The email field should be unwritable. | | | | |
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| **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** | | | | |
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| **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 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. | |
| **Postconditions** | | | | |
| The paystub details are persisted in the system | | | | |
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| **Business Rules** | | | | |
| No duplicate paystub details. A unique paystub is identified by its File Number. | | | | |
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| **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. | |
| **Postconditions** | | | | |
| The expenses details are persisted in the system | | | | |
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| **Use Case Number: 3** | | | |
| **Name** | | Manage Loads | |
| **Brief description** | | This use case allows the Fleet Despatcher to manage loads to book a car | |
| **Actors** | | Fleet Despatcher | |
| **Preconditions** | | | |
| The Fleet Despatcher to log on to the system | | | |
| **Flows of Events** | | | |
| **3. Basic Flows** | | | |
| **3.1.0 Add loads** | | | |
| **Step** | **User Actions** | | **System Actions** |
| 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. |
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| **Postconditions** | | | |
| The load record is persisted in the system | | | |
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| **Business Rules** | | | |
| No duplicate car details. A unique car is identified by its Load Id number. | | | |
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| **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** | | |
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| **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 | | |
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| **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 load from a list of available loads | The system displays a confirmation dialogue window |
| 3 | The Fleet Despatcher selects OK on the confirmation dialog window to confirm deleting the load | The system deletes the load. The system returns message a success message on success or failure message. |
| **Postconditions** | | |
| The selected load will be deleted | | |
| **Business Rules** | | |
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| **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** | | |
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| **Use Case Number: 4** | | | |
| **Name** | | Book Loads | |
| **Brief description** | | This use case allows the Driver to view and choose the available loads | |
| **Actors** | | Driver | |
| **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 “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. | |
| **Postconditions** | | | | |
| The Driver receives a receipt of assigned load information | | | | |
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| **Business Rules** | | | | |
| The list of Loads has to be order by Load Id number | | | | |
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| **Use Case Number: 5** | | | |
| **Name** | | Cancel Loads | |
| **Brief description** | | This use case allows the Driver to cancel assigned Load task booking | |
| **Actors** | | Driver | |
| **Preconditions** | | | |
| The Driver must log in to the system | | | |
| **Flows of Events** | | | | |
| **5. Basic Flows** | | | | |
| **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. | |
| **Postconditions** | | | | |
| A assigned load is canceled | | | | |

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| **Use Case Number: 6** | | | |
| **Name** | | View Loads | |
| **Brief description** | | This use case allows the Fleet Despatcher and Driver to view the available loads | |
| **Actors** | | Fleet Despatcher and Driver | |
| **Preconditions** | | | |
| The Fleet Despatcher and Driver must log in to the system | | | |
| **Flows of Events** | | | | |
| **6. Basic Flows** | | | | |
| **6.1.0 View Loads** | | | | |
| **Step** | **User Actions** | | **System Actions** | |
| 1 | The Fleet Despatcher and Driver selects to view a list of available loads | | The system returns a list of all available loads on database | |
| 2 | The Fleet Despatcher and Driver selects to view a load summary information from the list of loads | | The system displays a load summary file | |
| **Postconditions** | | | | |
| The load list will be displayed on screen | | | | |
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# **Glossary**

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| **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 |