

# Project Super-Li

## Transports and Employees Module

### README File

**Submitted by**

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As per the requirements listed in the Assignment PDF, the following are the different libraries we used in this phase of our project:

1. Google gson – This library was used to incorporate json files in our system required for handling raw data.
2. PostgreSQL – This library was used alongside pgAdmin for the inclusion of the system's database.
3. Java Util – This library was used for Arrays, ArrayLists, Scanners, HashMap, Map etc for a number of different uses.
4. Java I/O – This library was used to include a BufferedReader and FileReader.
5. Java JUNIT – This library was used for code testing.
6. Java Lang – This library has minor uses of java.lang.reflect.Type in order to construct objects of a certain Type to pass as parameters in functions.
7. Java Time – This library was used to create Date objects instead of string representations of dates.
8. Employee Module .jar File – This was added to Transports Module as a library in order to implement the specified Use Case.

## **System Instructions and User Manual**

### **Hello and welcome to Super-Li's Transport and Employee Module User Manual!**

The following step-by-step guide to operating our system will assist you in creating and managing transport operations across the company's different shipping areas spread countrywide.

Upon activating the system, you will be met with the following menu:

```
Menu:
1. Create Transport
2. List All Drivers
3. Add Driver
4. Remove Driver
5. Update Driver Availability
6. List All Trucks
7. Add Truck
8. Remove Truck
9. Update Truck Availability
10. List All Transports
11. Get Transport Report By Id
12. Add Site To Selected Shipment Area
13. Remove Site From Selected Shipment Area
14. Add Shipment Area
15. List Site Products By Transport ID
16. Exit
Enter your choice:
|
```

In order to perform one of the 16 actions this menu has to offer, simply press on any number between 1-16 and hit enter.

The actions you can perform with the system are as follows:

1. Create Transport

Upon choosing this option you will be met with a screen instructing you to fill out required information for the desired transport.

If all of the input details pass through and are validated, the transport will be created and a success message will be shown on the screen along with the identifier for the newly created transport.

In any other case, a suitable error message will appear instead, prompting you to input correct data.

```
Enter your choice:
1
Enter Transport Request details:
Enter Driver ID: 10
Enter Truck License Number: BCD890
Enter Request Day (yyyy-MM-dd): 2024-12-12
Enter Requested Time (HH:mm): 12:12
Enter Origin Address: 456 Elm St
Enter Site Name (or 'done' to finish): 123 Main St
Enter Site Name (or 'done' to finish): done
```

```
Transport created successfully. Transport ID: 1
```

In case of success, the Truck will be weighed prior to leaving the origin Site.

If the truck is overweight, the following screen will be shown.

```
Total weight exceeds the truck's maximum capacity. Choose an action:
1. Remove Products
2. Remove/Change Site
3. Change Truck
```

Choose one of the available options for transport modification to uphold standards.

Once completed, the Truck will be weighed once more.

**Developer's Note: Please be aware that any further failure to meet weight requirements will result in repeating this action until the designated truck's weight does not exceed it's capacity.**

## 2. List All Drivers

Choosing this option will provide a list of all drivers stored in the system.

```
Enter your choice: 2
Driver Name: Mor, License Type: C, Available: false
Driver Name: Raziel, License Type: B, Available: true
Driver Name: Sampson, License Type: C, Available: true
Driver Name: Shon ha melech, License Type: D, Available: true
Driver Name: Jessie, License Type: E, Available: true
```

## 3. Add driver

This option will allow you to incorporate a new driver into the system.

Simply input the required details in each line and hit enter.

```
Enter your choice:
3
Enter Driver license Type: C
Enter Driver Name: Razielelele
Enter Driver Last Name: G
Enter Driver ID: 12211889
Is Driver Currently Available (Please Enter - (true/false)) : true
Enter employee salary: 1200002
Ask the employee what password they want:
i love football
Choose job type:
1. Full-Time Job
2. Part-Time Job
Enter your choice: 1
Connection closed successfully.
Employee registered successfully: DomainEmployees.Employee@57855c9a
Role updated successfully in the database.
Driver added successfully.
```

Failure to input valid details will prompt the user to input new ones.

## 4. Remove Driver

This option allows you to remove a selected driver from the system by ID. Failure to find a driver with the given ID will prompt an error message.

```
Enter your choice: 4
Enter Driver ID To Remove: 2
Driver RazielID:2 removed.
```

#### 5. Update Driver Availability

This option will allow you to manually change a designated driver's availability.

```
Enter your choice: 5
Enter Driver ID: 3
Is Driver Currently Available (Please Enter - (true/false)) : false
Driver availability updated.
```

#### 6. List All Trucks

This option will allow you to list all of the trucks stored in the system.

```
Enter your choice: 6
Truck License Number: ABC123, Model: ModelX, Net Weight: 2000.0, Max Weight: 5000.0, Required License: B, Available: false
Truck License Number: DEF456, Model: ModelY, Net Weight: 2500.0, Max Weight: 6000.0, Required License: C, Available: true
Truck License Number: GHI789, Model: ModelZ, Net Weight: 3000.0, Max Weight: 7000.0, Required License: D, Available: false
Truck License Number: JKL012, Model: ModelA, Net Weight: 3500.0, Max Weight: 8000.0, Required License: E, Available: true
```

#### 7. Add Truck

This option will allow you to incorporate a new driver into the system.

Simply input the required details in each line and hit enter.

```
Enter your choice: 7
Enter Truck license Number: AKKJ136
Enter Required License For Truck: B
Enter Truck Model: XY
Enter Truck Net Weight: 1500
Enter Truck Max Weight: 7200
Truck added successfully.
```

#### 8. Remove Truck

This option allows you to remove a selected truck from the system by license number.

Failure to find a truck with the given license number will prompt an error message.

```
Enter your choice: 8
Enter Truck To Remove license Number: ABC123
Truck removed successfully.
```

#### 9. Update Truck Availability

This option will allow you to manually change a designated truck's availability.

```
Enter your choice: 9
Enter Truck License Number: ABC123
Is Truck Currently Available (Please Enter - (true/false)) : true
Truck availability updated.
```

#### 10. List All Transports

This option allows you to list all of the transports that were created and their respective transport report summary.

```
Enter your choice: 11
Transport ID: 5
Transport Report: TransportReport ID: 5,Initial Weight: 30.5,Changes Made:
```

#### 11. Get Transport Report by ID

This option fetches the transport report associated with the desired transport.

```
Enter your choice: 10
Enter Transport Report ID: 5
TransportReport ID: 5,Initial Weight: 30.5,Changes Made:
```

#### 12. Add Site to Selected Shipment Area

This option allows you to add a new site to a certain shipment area, simply input the required details.

```
Enter your choice: 18
Enter Area Name: Area1
Enter Site Address: Hashalón 12
Enter Contact Number: 555-2322
Enter Contact Name: Shon
Site added successfully.
```

#### 13. Remove Site from Selected Shipment Area

This option allows you to remove a site from a certain shipment area, simply input the required details.

```
Enter your choice: 19
Enter Area Name: Area1
Enter Site Address: Hashalón 12
Site removed successfully from area Area1
```

14. Add Shipment Area

This option allows you to incorporate a new Shipment Area into the system's database. Simply input the desired name for the new Shipment Area you wish to create and hit enter.

The system will then print a message for successful incorporation of the new Shipment Area.

In any case such a Shipment Area already exists in our system, an error message will be displayed on the screen.

15. List Site Products by Transport ID

This option allows you to list the products designated for the different Sites in a transport by inputting the desired Transport ID and hitting enter.

In any case the ID input does not match any of the Transports in the system's database, an error message will be displayed on the screen.

16. Exit

Choosing this will abort the system and close it.