| Module | Test Scenario Description | Steps to Execute | Expected Result |
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| | Verify that a trip can be created successfully with valid details | 1. Go to the "Trip Management" page.<br>2. Click "Create Trip".<br>3. Enter valid details for destination, driver, vehicle, and scheduled time.<br>4. Save the trip. | The trip should be saved successfully and displayed in the trip list. |
| | Test if an error appears when trying to create a trip without a driver | 1. Go to the "Trip Management" page.<br>2. Click "Create Trip".<br>3. Leave the "Driver" field blank and fill in other fields.<br>4. Save the trip. | The system should display an error indicating that the driver field is mandatory. |

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| **Trip Management** | Verify that notifications are sent to assigned drivers when a trip is created | 1. Assign a driver to a trip.<br>2. Save the trip.<br>3. Check the notification system for the assigned driver. | The assigned driver should receive a notification about the trip assignment. |
| | Check if the system allows simultaneous trip creation for multiple vehicles | 1. Create a trip with multiple vehicles assigned.<br>2. Save the trip.<br>3. Verify that all vehicles appear under the trip. | The system should allow assigning multiple vehicles and display them under the created trip. |
| | Verify the deletion functionality for trips | 1. Navigate to the "Trip Management" page.<br>2. Select a trip from the list.<br>3. Click "Delete".<br>4. Confirm the deletion. | The trip should be deleted and no longer appear in the trip list. |

| Module | Test Scenario Description | Steps to Execute | Expected Result |
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| **Driver Management** | Verify that a new driver can be added successfully | 1. Go to the "Driver Management" page.<br>2. Click "Add Driver".<br>3. Enter all required fields (name, contact info, license number, etc.).<br>4. Save the driver. | The driver should be saved successfully and displayed in the driver list. |
| | Check if the system prevents duplicate license numbers | 1. Add a new driver with an existing license number.<br>2. Save the driver. | The system should display an error indicating that the license number is already in use. |
| | Test the assignment of drivers based on vehicle preferences | 1. Create a driver profile with specific vehicle preferences.<br>2. Assign the driver to a trip with a matching vehicle type.<br>3. Attempt to assign the driver to a non-matching vehicle type. | The system should allow assignment to matching vehicle types and prevent assignment to non-matching vehicle types. |

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| | Verify that driver performance data is tracked accurately | 1. Assign a driver to a trip.<br>2. Complete the trip and update performance metrics.<br>3. Check the performance report for the driver. | The performance report should reflect accurate data for the completed trip. |
| | Verify that the system prevents assigning the same driver to overlapping trips | 1. Create a trip and assign a driver.<br>2. Create another trip with overlapping times for the same driver.<br>3. Save the second trip. | The system should display an error preventing the assignment of overlapping trips to the same driver. |

| **Module** | **Test Scenario Description** | **Steps to Execute** | **Expected Result** |
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| | Test the functionality of adding a new vehicle | 1. Go to the "Vehicle Management" page.<br>2. Click "Add Vehicle".<br>3. Enter all required fields (make, model, registration number, etc.). | The vehicle should be saved successfully and displayed in the vehicle list. |

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| **Vehicle Management** | | 4. Save the vehicle. | |
| | Verify that the system sends maintenance alerts | 1. Add a vehicle with a maintenance schedule.<br>2. Set the current date near the scheduled maintenance date.<br>3. Check for alerts in the system. | The system should display a maintenance alert for the vehicle. |
| | Check if the system allows updating vehicle details | 1. Select a vehicle from the list.<br>2. Edit the vehicle's details (e.g., registration number).<br>3. Save the changes. | The updated details should be saved and displayed in the vehicle profile. |
| | Verify that the system prevents duplicate registration numbers | 1. Add a vehicle with an existing registration number.<br>2. Save the vehicle. | The system should display an error indicating that the registration number is already in use. |
| | | 1. Select a vehicle from the list. | |

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| | Test if vehicles can be deactivated after being retired | 2. Mark the vehicle as "Retired".<br><br>3. Check if the vehicle is no longer available for trip assignments. | The vehicle should be marked as retired and removed from the active fleet list. |
| **Module** | **Test Scenario Description** | **Steps to Execute** | **Expected Result** |
| | Verify that a new customer profile can be created successfully | 1. Go to the "Customer Management" page.<br><br>2. Click "Add Customer".<br><br>3. Enter valid customer details (e.g., company name, contact info, billing information).<br><br>4. Save the customer. | The customer should be saved successfully and displayed in the customer list. |
| | Test if the system displays an error for missing mandatory fields | 1. Go to the "Customer Management" page.<br><br>2. Click "Add Customer".<br><br>3. Leave mandatory fields (e.g., company name) blank. | The system should display an error indicating that mandatory fields cannot be left blank. |

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| **Customer Management** | | 4. Attempt to save the customer. | |
| | Verify that customer-specific rate cards can be created and applied | 1. Create a customer profile.<br>2. Add a rate card specific to the customer.<br>3. Assign the customer to a trip and verify if the rate card is applied during invoice generation. | The system should apply the customer-specific rate card correctly to the trip invoice. |
| | Check if duplicate customer profiles are prevented | 1. Create a customer profile with specific details (e.g., company name and contact info).<br>2. Attempt to create another profile with the same details.<br>3. Save the second profile. | The system should display an error indicating that duplicate customer profiles are not allowed. |
| | Verify the deletion functionality for customer profiles | 1. Select an existing customer from the list.<br>2. Click "Delete".<br>3. Confirm the deletion. | The customer profile should be deleted successfully and no longer appear in the customer list. |

| Module | Test Scenario Description | Steps to Execute | Expected Result |
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| **Expense Management** | Verify that expenses can be added and categorized correctly | 1. Go to the "Expense Management" page.<br>2. Click "Add Expense".<br>3. Enter expense details (e.g., amount, category such as fuel or maintenance).<br>4. Save the expense. | The expense should be saved successfully and appear in the relevant category. |
| | Test if expenses can be linked to a specific trip or vehicle | 1. Create a trip and assign a vehicle.<br>2. Add an expense and link it to the created trip or vehicle.<br>3. Save the expense. | The expense should be linked correctly to the selected trip or vehicle. |
| | Verify that the system calculates total expenses accurately | 1. Add multiple expenses under different categories.<br>2. View the expense summary for a specific time period. | The total expense should match the sum of all expenses within the selected period. |

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| | | 3. Check the total calculation. | |
| | Check if the system prevents negative expense values | 1. Go to the "Expense Management" page.<br>2. Enter a negative value for an expense.<br>3. Attempt to save the expense. | The system should display an error preventing negative expense values. |
| | Verify that expense reports can be generated for specific filters | 1. Go to the "Expense Reports" section.<br>2. Select filters (e.g., date range, category, trip, or vehicle).<br>3. Generate the report. | The report should display expenses matching the selected filters accurately. |

| Module | Test Scenario Description | Steps to Execute | Expected Result |
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| | Verify that trip reports are generated | 1. Go to the "Reports and Analytics" section.<br>2. Select the "Trip Report" option. | The report should display accurate trip details based |

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| | accurately | 3. Apply filters such as date range, driver, or vehicle.<br><br>4. Generate the report. | on the selected filters. |
| | Test if expense reports include all relevant data | 1. Go to the "Reports and Analytics" section.<br><br>2. Select the "Expense Report" option.<br><br>3. Apply filters such as date range and category.<br><br>4. Generate the report. | The report should include all expenses within the selected filters and display totals accurately. |
| **Reports and Analytics** | Verify that driver performance reports are displayed correctly | 1. Go to the "Reports and Analytics" section.<br><br>2. Select the "Driver Performance Report" option.<br><br>3. Apply filters such as driver name or time period.<br><br>4. Generate the report. | The report should display accurate driver performance metrics based on the selected filters. |

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| | Check if reports can be exported to PDF and Excel formats | 1. Generate a report (e.g., trip or expense report).<br><br>2. Select the "Export" option.<br><br>3. Choose PDF or Excel format.<br><br>4. Save the file and open it to verify formatting. | The report should be exported successfully and retain proper formatting in both PDF and Excel formats. |
| | Verify that invalid filter combinations are handled gracefully | 1. Go to the "Reports and Analytics" section.<br><br>2. Apply conflicting filters (e.g., selecting a driver not assigned to any trips in the selected date range).<br><br>3. Generate the report. | The system should display a message indicating no data available for the selected filters without crashing. |