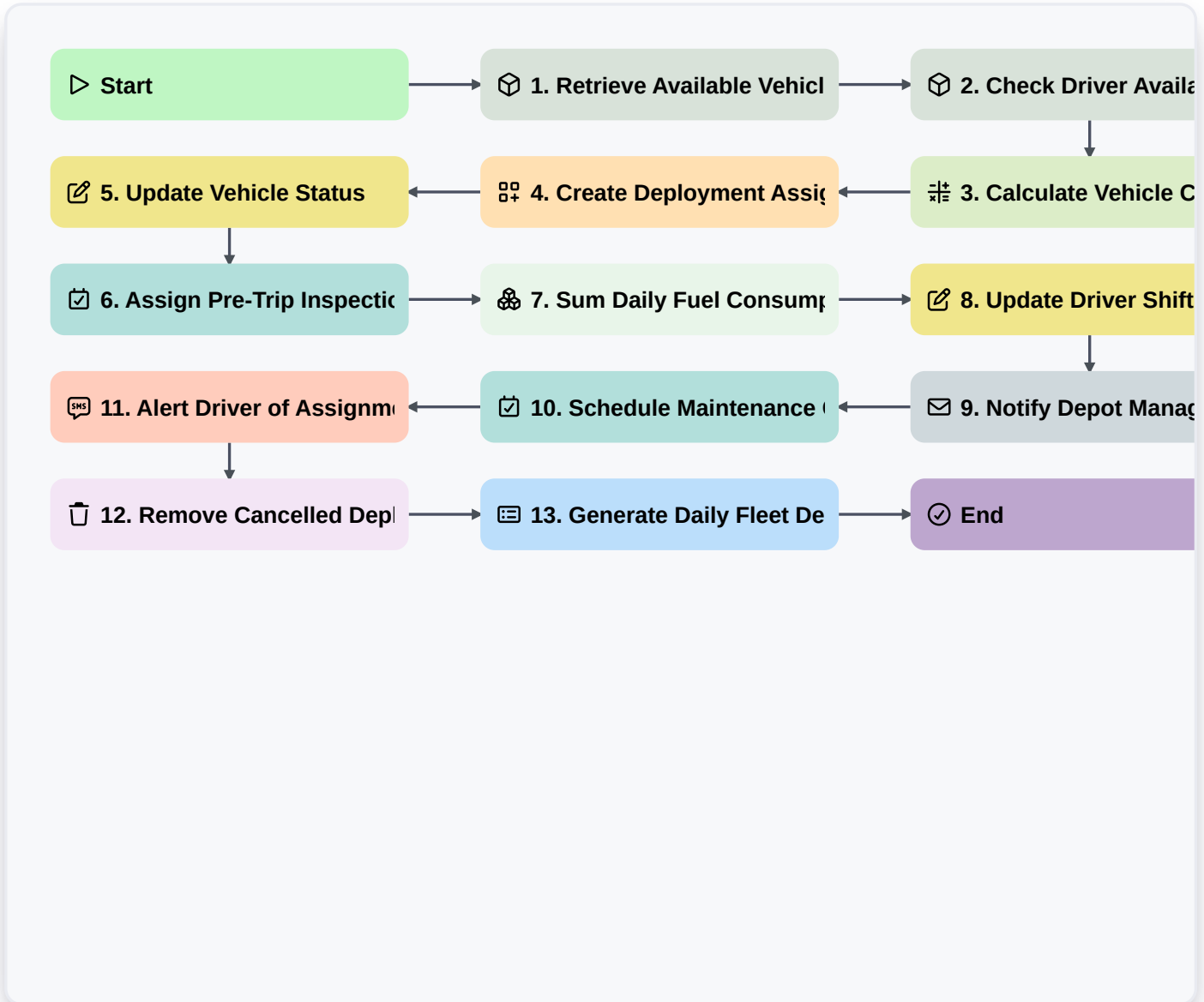


# Bus Depot Management And Vehicle Deployment Workflow



## ▷ Start

Start of the Workflow/Process.

## 1. Retrieve Available Vehicles

Fetch all vehicle entries from the Vehicle Data Model where status is 'Ready for Deployment'.

## 2. Check Driver Availability

Fetch driver entries from the Staff Data Model with an active status and no assigned shifts.

## 3. Calculate Vehicle Capacity Utilization

Calculate the percentage of total fleet capacity currently assigned to active routes.

## 4. Create Deployment Assignment

Create a new entry in the Deployment Log linking a specific Vehicle, Driver, and Route.

## 5. Update Vehicle Status

Change the status of the selected vehicle from 'Ready' to 'In Service'.



### **6. Assign Pre-Trip Inspection Checklist**

Create a task for the assigned Driver containing the mandatory safety inspection checklist.

### **7. Sum Daily Fuel Consumption**

Aggregate all fuel entries for the current date to monitor daily operational costs.

### **8. Update Driver Shift Schedule**

Update the Driver entry to mark the driver as 'On Duty' for the current shift duration.

### **9. Notify Depot Manager**

Send an email to the Depot Manager confirming that the morning deployment plan has been finalized.

### **10. Schedule Maintenance Check**

Create a maintenance task for the workshop team if the vehicle's mileage exceeds the threshold.

### **11. Alert Driver of Assignment**

Send an SMS to the driver's registered phone number with the assigned Route ID and Departure Time.

### **12. Remove Cancelled Deployment**

Delete the deployment entry if the route is cancelled due to external factors (e.g., road closures).

### **13. Generate Daily Fleet Deployment Report**

Generate a summary report containing all completed deployments, vehicle usage, and driver hours for the day.

### **End**

End of the Workflow/Process.