TFM Project

This repo contains the backend code for TFM Project. It consists of two parts

- Super Admin Panel
- TFM Panel

For both parts we use the following AWS services :

- DynamoDB
- Cognito
- Lambda
- Api Gateway
- CloudFormation

TFM Features

- Trip Details
- Driver Details
- Vehicle Details
- Drivers Overview
- Vehicles Overview
- Dashboard

Trip Details

- In each trip we calculate the driver score and the vehicle score and showing them in the trip details page.
- The average scores for the vehicle and the driver will be updated after each trip and reflected in the trip details page.
- All trip statistics comes from flespi.
- Driver Compliance :
  - Max speed and Harsh events come from flespi statistics at the end of the trip.
  - The fuel efficiency is calculated as following :

    ```
    Fuel Efficiency = [Trip Distance / Trip Fuel Consumed * 100] / [Optimal Distance Per Vehicle / Optimal Fuel consumed Per Vehicl
    ```
    .
  - The duration that the driver used the seat belt divided by the trip duration multiplied by 100 will be the seat belt score.
  - Number of alerts comes from flespi.
  - Actionable notifications are the notifications that occure during the trip.
  - The rout comes from flespi at the end of the trip.
  - The starting point for knowing the driver name and the vehicle plate number is the device IMEI number that assigned to a vehicle.

Driver Details

- The driver score for each trip is calculated as following :

  ```
  let _triptime = moment(payload.end_time).diff(moment(payload.start_time));
  let _timedelta = (_triptime - payload.idle_duration) / _triptime;
  let _odometer = Math.ceil(payload.odometer);
  let _raw_score = (_timedelta +
  Math.abs(((0.75*_odometer - payload.high_braking_event) / _odometer)) +
  Math.abs(((0.75*_odometer - payload.high_acceleration_event) / _odometer)) +
  Math.abs(((0.75*_odometer - payload.overspeed.event) / _odometer))
  Math.abs(((0.75*_odometer - payload.cornering.event) / _odometer)) /4
  ```

- The following is the equation for calculating driver score :
  - $$Ds = \frac{w1 * s1 + w2 * s2 + ... + wn * sn}{w1 + w2 + ... + wn}$$

> where `Ds` referes to the daily driver score, `w` refers to the trip duration and `s` refers to the driver score in that trip.

- `The daily score` will be reset at `12 AM` Amman time zone.
- `The yesterday score` is updated before reset the daily driver score.
- `The weekly score` is updated before reset weekly statistics for each driver.
- `The current state` is updated either when the trip has been started `(Active)` or when the trip has been ended `(Available)`.
- `The last trip score of vehicle` is updated by the end of each trip.
- `The mileage` is caculated by accumulating the odometer for each trip.
- `The daily mileage` will be reset By the end of the day.
- `The monthly mileage` will be reset each month.
- `The annual mileage` will be reset each year.
- `The total number of trips` is increased by one at the end of each trip.
- `The driver tenure` is caculated by comparing the current date with the employment date.
- `Total Driver Distance` is calculated by accumulating the driver distance from the point the driver has started working in the concerned company.
- The `Average Trip Distance` is calculated by dividing the total driven Distance by the total number of trips.
- `Total Driving Duration` is calculated by accumulating the trips duartions from the point the driver has started working in the concerned company.
- The `Average Trip Duration` is calculated by dividing the total Driving Duration by the total number of trips.
- For each driver the overall rank and group rank are updated by the end of the day.
    - get all drivers and sort them in decending order by their life time score and assign them the correct rank
    - get the drivers in each group and sort them in decending order by their life time score and assign them the correct group rank.
    - the last month for overall and group rank will be updated before reset monthly statistics for each driver.
- `Actionable notifications` are the notifications that is related to the driver. Mostly they are registration notifications.
- `Scheduled notifications` are the actionable notifications that the manager schedule them in the future to take action aginst them.
- `Inprogress notifications` are the scheduled notifications that get in the time they should be processed against action.
- `Driver Compliance` :

    > All driver compliance values can be filtered eithier yearly or monthly

    - `Max Speed` :
        - yearly :

        > `Max Speed = 100 - [Yearly OverSpeed Summation / Yearly Driving Time ] * 100`.

        > where `Yearly OverSpeed Summation` is the summation of all over speed durations that the driver exceeds the max speed limit configured either from vehicle or vehicle group.

        - monthly :

        > `Max Speed = 100 - [Monthly OverSpeed Summation / Monthly Driving Time ] * 100`.

        > where `Monthly OverSpeed Summation` is the summation of all over speed durations that the driver exceeds the max speed limit configured either from vehicle or vehicle group.

        > `Trips With Violations` is the number of trips where the driver violates the max speed limit.

    - `Seatbelt` :

        > `Seat Belt Percent = [Yearly SeatBelt Summation / Yearly Driving Time ] * 100`.

        > where `Yearly SeatBelt Summation` is the summation of all seatbelt durations where the driver has used the seatbelt.

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        > `Seat Belt Percent = [Monthly SeatBelt Summation / Monthly Driving Time ] * 100`.

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        > `Trips With Violations` is the number of trips where the driver violates the seat belt score configured from the driver group.

    - `Driving Hours` :
        - yearly :

        > `Driving Hours Percent = [ Yearly Driving Hours * 100] / [365 * Daily Working Hours]`.

        > Average Per Day is the yearly Driving Time In Hours / 365

        - monthly :

        > `Driving Hours Percent = [ Monthly Driving Hours * 100] / [30 * Daily Working Hours]`.

> Average Per Day is the monthly Driving Time In Hours / 30

> where `Daily Working Hours` is the number of hours that is configured from the driver group.

- `Fuel Efficiency` :
  - yearly :

    > `Fuel Efficiency = [Yearly Distance / Yearly Fuel Consumed * 100] / [Optimal Distance Per Vehicle / Optimal Fuel consumed Per`
    > .

  - monthly :

    > `Fuel Efficiency = [Monthly Distance / Monthly Fuel Consumed * 100] / [Optimal Distance Per Vehicle / Optimal Fuel consumed Pe`
    > .

Vehicle Details

- The vehicle score for each trip is calculated as following :

  ```
  vehicle score per trip = 0.25 * Driver score per trip + 0.25 DTCs Active + 0.25 * Distance Daily And Time daily + Maintenance (
  ```

> `DTCs Active` refers to whether a DTC code has happend with the vehicle in the trip or not.
>
> `Distance Daily And Time daily` contains three parts :
>
> > .

- The following is the equation for calculating driver score :
  - $$Ds = \frac{w1 * s1 + w2 * s2 + ... + wn * sn}{w1 + w2 + ... + wn}$$

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- monthly :

> `Max Speed = 100 - [Monthly OverSpeed Summation / Monthly Driving Time ] * 100` .

> where `Monthly OverSpeed Summation` is the summation of all over speed durations that the driver exceeds the max speed limit configured either from vehicle or vehicle group.

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> `Driving Hours Percent = [ Yearly Driving Hours * 100] / [365 * Daily Working Hours]` .

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> where `Daily Working Hours` is the number of hours that is configured from the driver group.

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Drivers Overview

Vehicles Overview

Dashboard

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Super Admin Access patterns

There are two 'twenty two' entities in this application. And there are many access patterns for those core entities:

Clients:

- **Create Client:** Available at `POST /admin/create/client` . Used to create a new Company. Will throw an error if the companyname is already in our system.
- **Get Clients:** Available at `GET /admin/client/list` . Retrieve all Companies and core data.
- **Update Client:** Available at `PATCH /admin/update/clientId/client` . Used to update an existing Company.
- **Remove Client:** Available at `PATCH /admin/client/delete/clientId` . Used to remove an existing Company.
- **Assign Vehicles to Client:** Available at `POST /admin/client/assign/clientId` . Used to assign and unassign one vehicle to an existing Company.
- **Get Assigned Vehicles:** Available at `GET /admin/client/listAssigned/clientId` . Retrieve all assigned vehicles for a specific company.

Vehicles:

- **Create Vehicle:** Available at `POST /admin/create/vehicle` . Used to create a new Vehicle.
- **Get Vehicles:** Available at `GET /admin/vehicle/list` . Retrieve all Vehicles and core data.
- **Update Vehicle:** Available at `PATCH /admin/update/vehicleId/vehicle` . Used to update an existing vehicle.
- **Remove Vehicle:** Available at `PATCH /admin/vehicle/delete/vehicleId` . Used to remove an existing vehicle.
- **Assign Device to Vehicle:** Available at `POST /admin/vehicle/assign/vehicleId` . Used to assign and unassign one device to an existing vehicle.
- **Get all Unssigned Vehicles:** Available at `GET /admin/vehicle/listUnAssigned` . Retrieve all unassigned vehicles.

Devices:

- **Create Device:** Available at `POST /admin/create/device` . Used to create a new Device.
- **Get Devices:** Available at `GET /admin/device/list` . Retrieve all Devices and core data.
- **Update Device:** Available at `PATCH /admin/update/deviceId/device` . Used to update an existing device.
- **Remove Vehicle:** Available at `PATCH /admin/device/delete/deviceId` . Used to remove an existing device.
- **Assign Simcard to Device:** Available at `POST /admin/device/assign/deviceId` . Used to assign and unassign one simcard to an existing device.
- **Get all Unssigned devices:** Available at `GET /admin/device/listUnAssigned` . Retrieve all unassigned devices.

Simcards:

- **Create Simcard:** Available at `POST /admin/create/simcard` . Used to create a new Simcard.
- **Get Simcards:** Available at `GET /admin/simcard/list` . Retrieve all Simcards and core data.
- **Update Simcard:** Available at `PATCH /admin/update/simcardId/simcard` . Used to update an existing simcard.
- **Remove Simcard:** Available at `PATCH /admin/simcard/delete/simcardId` . Used to remove an existing simcard.
- **Get all Unssigned simcards:** Available at `GET /admin/simcard/listUnAssigned` . Retrieve all unassigned simcards.

DailyScore Weight:

`we have just one item for this entity and we will use its values to control the daily vehicle score terms`

- **Create DailyScore:** Available at `POST /admin/create/daily-score` . Used to create the daily score item.
- **Get DailyScore:** Available at `GET /admin/daily-score/list` . Retrieve all daily score items.
- **Update DailyScore:** Available at `PATCH /admin/update/dailyScoreId/daily-score` . Used to update the daily score item.
- **Remove DailyScore:** Available at `PATCH /admin/daily-score/delete/dailyScoreId` . Used to remove the daily score item.

LifeTimeScore Weight:

`we have just one item for this entity and we will use its values to control the LifeTime vehicle score terms`

- **Create LifeTimeScore:** Available at `POST /admin/create/lifetime-score` . Used to create the lifetime score item.
- **Get LifeTimeScore:** Available at `GET /admin/lifetime-score/list` . Retrieve all lifetime score items.
- **Update LifeTimeScore:** Available at `PATCH /admin/update/lifetimeScoreId/lifetime-score` . Used to update the lifetime score item.
- **Remove LifeTimeScore:** Available at `PATCH /admin/lifetime-score/delete/lifetimeScoreId` . Used to remove the lifetime score item.

LifeTimeScore Weight:

`we have just one item for this entity and we will use its values to control the LifeTime vehicle score terms`

- **Create LifeTimeScore:** Available at `POST /admin/create/lifetime-score` . Used to create the lifetime score item.
- **Get LifeTimeScore:** Available at `GET /admin/lifetime-score/list` . Retrieve all lifetime score items.

- **Update LifeTimeScore:** Available at `PATCH /admin/update/lifetimeScoreId/lifetime-score` . Used to update the lifetime score item.
- **Remove LifeTimeScore:** Available at `PATCH /admin/lifetime-score/delete/lifetimeScoreId` . Used to remove the lifetime score item.

DailyDistance:

```
we have eleven items for this entity and we will use their values to calculate daily vehicle score based on the traveled distance for a
```

- **Create DailyDistance:** Available at `POST /admin/create/daily-distance` . Used to create the daily distance item.
- **Get DailyDistance:** Available at `GET /admin/daily-distance/list` . Retrieve all daily distance items.
- **Update DailyDistance:** Available at `PATCH /admin/update/dailyDistanceId/daily-distance` . Used to update the daily distance item.
- **Remove DailyDistance:** Available at `PATCH /admin/daily-distance/delete/dailyDistanceId` . Used to remove the daily distance item.

DailyTime:

```
we have eleven items for this entity and we will use their values to calculate daily vehicle score based on the summation time for all
```

- **Create DailyTime:** Available at `POST /admin/create/daily-time` . Used to create the daily time item.
- **Get DailyTime:** Available at `GET /admin/daily-time/list` . Retrieve all daily time items.
- **Update DailyTime:** Available at `PATCH /admin/update/dailyTimeId/daily-time` . Used to update the daily time item.
- **Remove DailyTime:** Available at `PATCH /admin/daily-time/delete/dailyTimeId` . Used to remove the daily time item.

DailyIdle:

```
we have eleven items for this entity and we will use their values to calculate daily vehicle score based on the summation of idling tim
```

- **Create DailyIdle:** Available at `POST /admin/create/daily-idle` . Used to create the daily idle item.
- **Get DailyIdle:** Available at `GET /admin/daily-idle/list` . Retrieve all daily idle items.
- **Update DailyIdle:** Available at `PATCH /admin/update/dailyIdleId/daily-idle` . Used to update the daily idle item.
- **Remove DailyIdle:** Available at `PATCH /admin/daily-idle/delete/dailyIdleId` . Used to remove the daily idle item.

MaintenanceOverDays:

```
we have four items for this entity and we will use their values to calculate daily vehicle score based on the number of days after the
```

- **Create MaintenanceOverDays:** Available at `POST /admin/create/maintenance-over-days` . Used to create the MaintenanceOverDays item.
- **Get MaintenanceOverDays:** Available at `GET /admin/maintenance-over-days/list` . Retrieve all MaintenanceOverDays items.
- **Update MaintenanceOverDays:** Available at `PATCH /admin/update/maintenanceOverDaysId/maintenance-over-days` . Used to update the MaintenanceOverDays item.
- **Remove MaintenanceOverDays:** Available at `PATCH /admin/maintenance-over-days/delete/maintenanceOverDaysId` . Used to remove the MaintenanceOverDays item.

MaintenanceOverKM:

```
we have four items for this entity and we will use their values to calculate daily vehicle score based on the summation of traveled KM
```

- **Create MaintenanceOverKM:** Available at `POST /admin/create/maintenance-over-km` . Used to create the MaintenanceOverKM item.
- **Get MaintenanceOverKM:** Available at `GET /admin/maintenance-over-km/list` . Retrieve all MaintenanceOverKM items.
- **Update MaintenanceOverKM:** Available at `PATCH /admin/update/maintenanceOverKMId/maintenance-over-km` . Used to update the MaintenanceOverKM item.
- **Remove MaintenanceOverKM:** Available at `PATCH /admin/maintenance-over-km/delete/maintenanceOverKMId` . Used to remove the MaintenanceOverKM item.

DTCActive:

```
we have five items for this entity and we will use their values to calculate daily vehicle score in case of the vehicle made dtc.
```

- **Create DTCActive:** Available at `POST /admin/create/dtc-active` . Used to create the DTCActive item.
- **Get DTCActive:** Available at `GET /admin/dtc-active/list` . Retrieve all DTCActive items.
- **Update DTCActive:** Available at `PATCH /admin/update/dtcActiveId/dtc-active` . Used to update the DTCActive item.
- **Remove DTCActive:** Available at `PATCH /admin/dtc-active/delete/dtcActiveId` . Used to remove the DTCActive item.

LifetimeDistance:

```
we have eleven items for this entity and we will use their values to calculate lifetime vehicle score based on the cummulative traveled
```

- **Create LifetimeDistance:** Available at `POST /admin/create/lifetime-distance` . Used to create the lifetime distance item.
- **Get LifetimeDistance:** Available at `GET /admin/lifetime-distance/list` . Retrieve all lifetime distance items.
- **Update LifetimeDistance:** Available at `PATCH /admin/update/lifetimeDistanceId/lifetime-distance` . Used to update the lifetime distance item.

- **Remove LifetimeDistance:** Available at `PATCH /admin/lifetime-distance/delete/lifetimeDistanceId` . Used to remove the lifetime distance item.

lifetimeAge:

```
we have six items for this entity and we will use their values to calculate lifetime vehicle score based on the age of vehicle.
```

- **Create lifetimeAge:** Available at `POST /admin/create/lifetime-age` . Used to create the lifetime Age item.
- **Get lifetimeAge:** Available at `GET /admin/lifetime-age/list` . Retrieve all lifetime age items.
- **Update lifetimeAge:** Available at `PATCH /admin/update/lifetimeAgeId/lifetime-age` . Used to update the lifetime age item.
- **Remove lifetimeAge:** Available at `PATCH /admin/lifetime-age/delete/lifetimeAgeId` . Used to remove the lifetime age item.

MaintenanceHistoryMonths:

```
we have four items for this entity and we will use their values to calculate lifetime vehicle score based on the number of months after
```

- **Create MaintenanceHistoryMonths:** Available at `POST /admin/create/maintenance-history-months` . Used to create the MaintenanceHistoryMonths item.
- **Get MaintenanceHistoryMonths:** Available at `GET /admin/maintenance-history-months/list` . Retrieve all MaintenanceHistoryMonths items.
- **Update MaintenanceHistoryMonths:** Available at `PATCH /admin/update/maintenanceHistoryMonthsId/maintenance-history-months` . Used to update the MaintenanceHistoryMonths item.
- **Remove MaintenanceHistoryMonths:** Available at `PATCH /admin/maintenance-history-months/delete/maintenanceHistoryMonthsId` . Used to remove the MaintenanceHistoryMonths item.

MaintenanceHistoryKM:

```
we have four items for this entity and we will use their values to calculate lifetime vehicle score based on the summation of traveled
```

- **Create MaintenanceHistoryKM:** Available at `POST /admin/create/maintenance-history-km` . Used to create the MaintenanceHistoryKM item.
- **Get MaintenanceHistoryKM:** Available at `GET /admin/maintenance-history-km/list` . Retrieve all MaintenanceHistoryKM items.
- **Update MaintenanceHistoryKM:** Available at `PATCH /admin/update/maintenanceHistoryKmId/maintenance-history-km` . Used to update the MaintenanceHistoryKM item.
- **Remove MaintenanceHistoryKM:** Available at `PATCH /admin/maintenance-history-km/delete/maintenanceHistoryKmId` . Used to remove the MaintenanceHistoryKM item.

TotalDTC:

```
we have five items for this entity and we will use their values to calculate lifetime vehicle score based on the total number of all dt
```

- **Create TotalDTC:** Available at `POST /admin/create/total-dtc` . Used to create the TotalDTC item.
- **Get TotalDTC:** Available at `GET /admin/total-dtc/list` . Retrieve all TotalDTC items.
- **Update TotalDTC:** Available at `PATCH /admin/update/totalDTCId/total-dtc` . Used to update the TotalDTC item.
- **Remove TotalDTC:** Available at `PATCH /admin/total-dtc/delete/totalDTCId` . Used to remove the TotalDTC item.

DriverNotification:

```
we use the driver notification items as a baseline to send a notification to the driver who exceeds the pre-defined number of events pe
```

- **Create DriverNotification:** Available at `POST /admin/create/driver-notification` . Used to create the DriverNotification item.
- **Get DriverNotification:** Available at `GET /admin/driver-notification/list` . Retrieve all DriverNotification items.
- **Update DriverNotification:** Available at `PATCH /admin/update/driverNotificationId/driver-notification` . Used to update the DriverNotification item.
- **Remove DriverNotification:** Available at `PATCH /admin/driver-notification/delete/driverNotificationId` . Used to remove the DriverNotification item.

LicenseDate:

```
we have one license item with multiple thresholds to control sending vehicle notification before or after License Date has been expired
```

- **Create LicenseDate:** Available at `POST /admin/create/license-date` . Used to create the LicenseDate item.
- **Get LicenseDate:** Available at `GET /admin/license-date/list` . Retrieve all LicenseDate items.
- **Update LicenseDate:** Available at `PATCH /admin/update/licenseDateId/license-date` . Used to update the LicenseDate item.
- **Remove LicenseDate:** Available at `PATCH /admin/license-date/delete/licenseDateId` . Used to remove the LicenseDate item.

InsuranceDate:

```
we have one license item with multiple thresholds to control sending vehicle notification before or after Insurance Date has been expir
```

- **Create InsuranceDate:** Available at `POST /admin/create/insurance-date` . Used to create the InsuranceDate item.

- **Get InsuranceDate:** Available at `GET /admin/insurance-date/list` . Retrieve all InsuranceDate items.
- **Update InsuranceDate:** Available at `PATCH /admin/update/insuranceDateId/insurance-date` . Used to update the InsuranceDate item.
- **Remove InsuranceDate:** Available at `PATCH /admin/insurance-date/delete/insuranceDateId` . Used to remove the InsuranceDate item.

Items:

- **Create Items:** Available at `POST /admin/create/items` . Used to create the Items item.
- **Get Items:** Available at `GET /admin/items/list` . Retrieve all `Items` items.
- **Update Items:** Available at `PATCH /admin/update/itemId/items` . Used to update the `Items` item.
- **Remove Items:** Available at `PATCH /admin/items/delete/itemId` . Used to remove the `Items` item.

VehicleTypes:

- **Create Items:** Available at `POST /admin/create/vehicle-types` . Used to create the VehicleTypes item.
- **Get VehicleTypes:** Available at `GET /admin/vehicle-types/list` . Retrieve all VehicleTypes items.
- **Update VehicleTypes:** Available at `PATCH /admin/update/vehicleTypeId/vehicle-types` . Used to update the VehicleTypes item.
- **Remove VehicleTypes:** Available at `PATCH /admin/vehicle-types/delete/vehicleTypeId` . Used to remove the VehicleTypes item.

Table structure

The basic table structure is as follows:

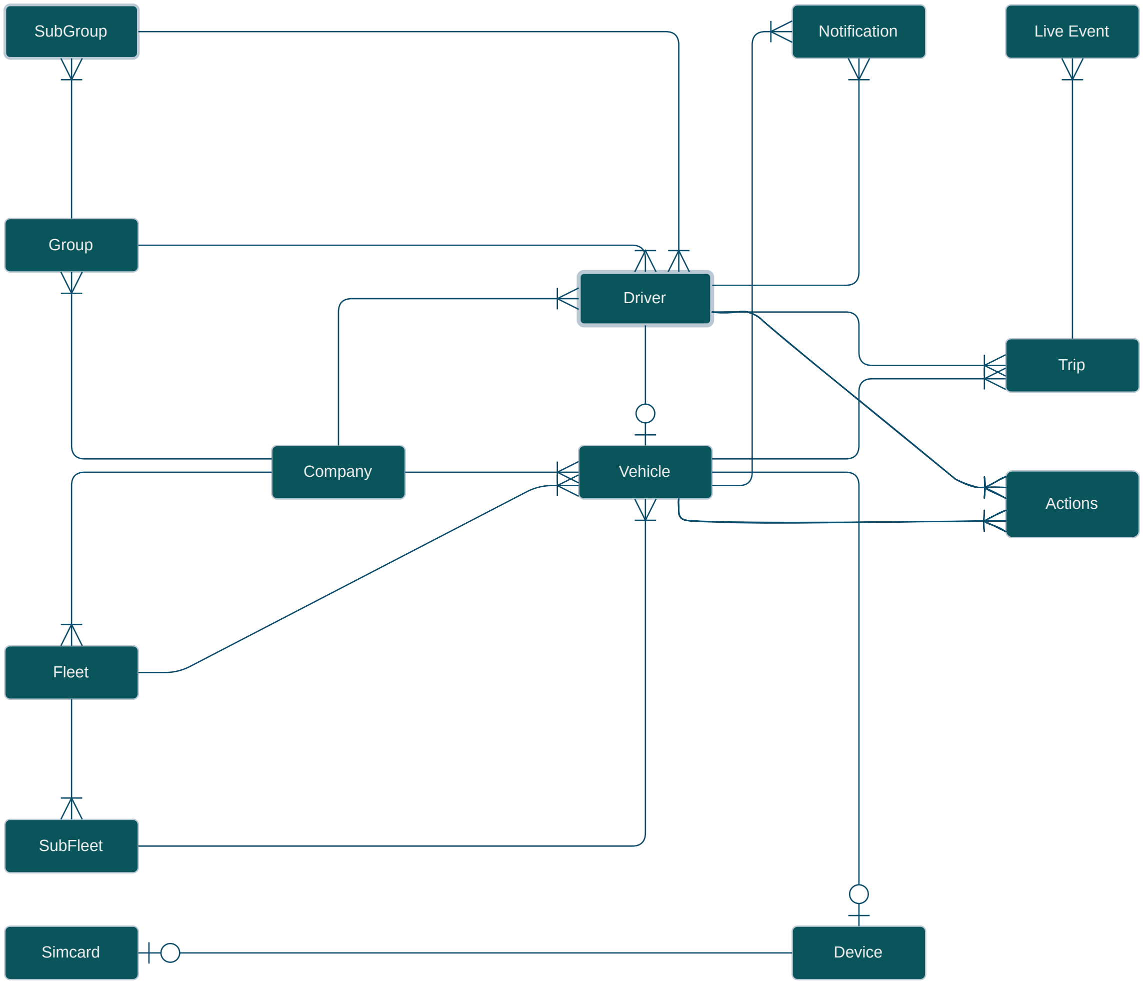
- **Primary key:** `PK` & `SK`
- **GSI1 secondary index:** `GSI1PK` & `GSI1SK`
- **GSI2 secondary index:** `GSI2PK` & `GSI2SK`

And the entity chart for the table is:

Entity	PK	SK	GSI1PK
Client	`COMPANY#<CompanyName>`	`COMPANY#<CompanyName>`	`COMPANY`
Simcard	`SIMCARD#<SimcardId>`	`SIMCARD#<SimcardId>`	`SIMCARD`
Vehicle	`VEHICLE#<VehicleId>`	`VEHICLE#<VehicleId>`	`VEHICLE`
Device	`DEVICE#<DeviceId>`	`DEVICE#<DeviceId>`	`DEVICE`
Daily Score	`DAILY-SCORE`	`DAILY-SCORE`	`DAILY-SCORE`
LifeTime Score	`LIFETIME-SCORE`	`LIFETIME-SCORE`	`LIFETIME-SCORE`
Daily Distance	`DAILY-DISTANCE#<CreatedAt>`	`DAILY-DISTANCE#<CreatedAt>`	`DAILY-DISTANCE`
Daily Time	`DAILY-TIME#<CreatedAt>`	`DAILY-TIME#<CreatedAt>`	`DAILY-TIME`
Daily Idle	`DAILY-IDLE#<CreatedAt>`	`DAILY-IDLE#<CreatedAt>`	`DAILY-IDLE`
Maintenance OverDue Days	`MAINTENANCE-OVER-DAYS#<CreatedAt>`	`MAINTENANCE-OVER-DAYS#<CreatedAt>`	`MAINTENANCE-OVER-DAYS`
Maintenance OverDue KM	`MAINTENANCE-OVER-KM#<CreatedAt>`	`MAINTENANCE-OVER-KM#<CreatedAt>`	`MAINTENANCE-OVER-KM`
DTC Active	`DTC-ACTIVE#<CreatedAt>`	`DTC-ACTIVE#<CreatedAt>`	`DTC-ACTIVE`
LifeTime Distance	`LIFETIME-DISTANCE#<CreatedAt>`	`LIFETIME-DISTANCE#<CreatedAt>`	`LIFETIME-DISTANCE`
LifeTime Age	`LIFETIME-AGE#<CreatedAt>`	`LIFETIME-AGE#<CreatedAt>`	`LIFETIME-AGE`

Entity	PK	SK	GSI1PK
Maintenance History Months	`MAINTENANCE-HISTORY-MONTHS#<CreatedAt>`	`MAINTENANCE-HISTORY-MONTHS#<CreatedAt>`	`MAINTENANCE-HISTORY-MONTHS`
Maintenance History KM	`MAINTENANCE-HISTORY-KM#<CreatedAt>`	`MAINTENANCE-HISTORY-KM#<CreatedAt>`	`MAINTENANCE-HISTORY-KM`
Total DTC	`TOTAL-DTC#<CreatedAt>`	`TOTAL-DTC#<CreatedAt>`	`TOTAL-DTC`
Driver Notifications	`DRIVER-NOTIFICATION#<NotificationSubType>`	`DRIVER-NOTIFICATION#<NotificationSubType>`	`DRIVER-NOTIFICATION`
Items	`ITEMS#<ItemName>`	`ITEMS#<ItemName>`	`ITEMS`
Vehicle Types	`VEHICLE-TYPES#<CreatedAt>`	`VEHICLE-TYPES#<CreatedAt>`	`VEHICLE-TYPES`
License Date	`LICENSE-DATE`	`LICENSE-DATE`	`LICENSE-DATE`
Insurance Date	`INSURANCE-DATE`	`INSURANCE-DATE`	`INSURANCE-DATE`

Entity Relationships


SubGroup
Notification
Live Event
Group
Driver
Trip
Company
Vehicle
Actions
Fleet
SubFleet
Simcard
Device