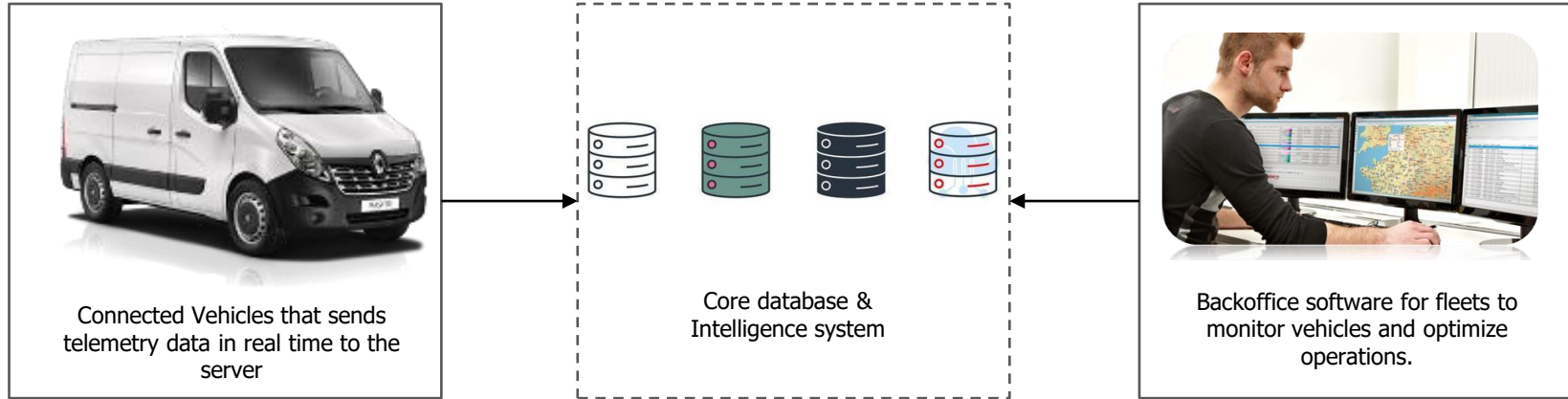# Exercise Background

ZF Digital Fleet Solutions ([website](#)) develops and commercializes fleet management solutions for the transport and logistics sector. We develop global full solution provider of truck, bus, light vehicles, driver, trailer, cargo and subcontractor management.

Product Basic Overview

Connected Vehicles that sends telemetry data in real time to the server

Core database & Intelligence system

Backoffice software for fleets to monitor vehicles and optimize operations.

Exercise Data

Data files provided:

- User Details – Metadata related to accounts and assets registered against them.
- Vehicle Telemetry Data Files – 334455, 334456, 334457, 334458, 334459

Data Header Details:

Column Name	Description	Unit / Format
ID	Datasource Identifier	
Timestamp	Message Recorded at Timestamp	dd/mm/yyyy hh:mm:ss
Ignition	Vehicle Ignition on/off status	
Odometer (Mts)	Odometer reading received	Km / Mts
Pos	Vehicle Position	Latitude , Longitude
Fuel %age	Fuel Level	Percentage

Exercise Goals

- Define and add data quality checks for available assets, e.g.,
  - Values in Range, Null Values.
  - If any issues are identified, fix them in the script and not manually.
  - Harmonize/Standardize Data from each vehicle.
- Build a dashboard to show insights at an aggregated level (Daily level).

Expected outcomes:
- Script with steps showing data quality checks, corrections and any aggregations.
  - Table output for data quality and corrected vehicle data.
- Dashboard showing insights.
- Presentation discussing what insights can be derived, challenges and what other data points that can be useful to derive more features.

Additional Objective:
- Define Trips for vehicles and add that as an aggregation level for the dashboard.