**Project 1: Real-Time Fleet Management System for Transportation Industry**

In this project, we'll develop a real-time fleet management system for a transportation company. The system will track

vehicle locations, monitor fuel consumption, and analyze driver behavior to optimize routes and improve overall

efficiency. This solution will leverage Azure's IoT and data services to process streaming data from vehicles and provide

actionable insights to fleet managers.

**Architecture:**

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**Technologies:**

1.Azure data lake storage(Gen2)

2.Event hub

3. Azure Stream Analytics

4. Azure Synapse Analytics

5. Power BI

6.Sql database

**Dataset Used:** Taxi data in json format

1.create a resource group

2.create a Event hub namespace, eventhub, Shared access policy

3.Created a visual studio code that sends data to event hub as input

4.inserted a json file in visual studio code.

5.Data gets inserted in input eventhub

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Used sql Query as input and joined a table

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4.create a output like eventhub, powerbi, adls, synapse

5.Write a query and check test results

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BY Selecting output as blob we can save data in adls.

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Save data in Data lake in Parquet format

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Data is generated

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Create a Dedicated sql pool,create a table, Before running the event hub the data was null

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After The stream analytics job, we can see the data gets inserted into the table.

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Powerbi:

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