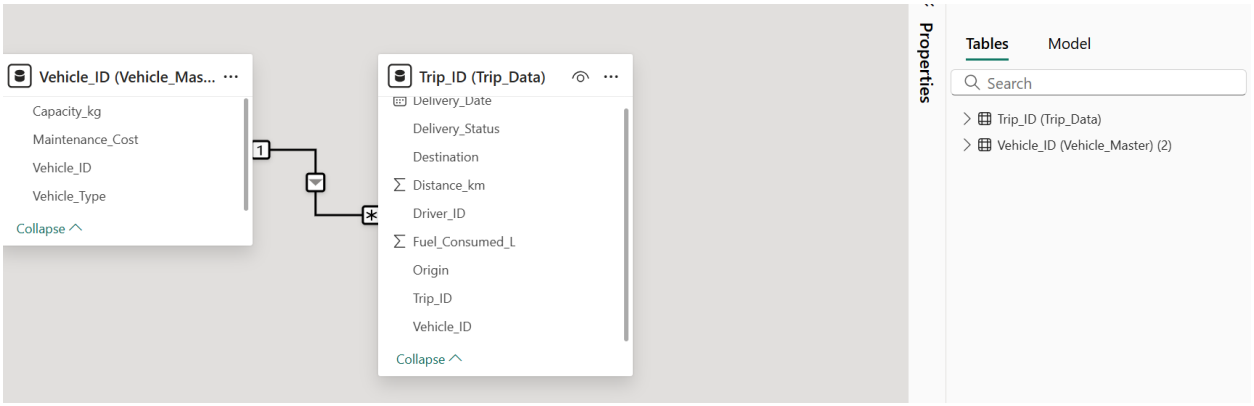
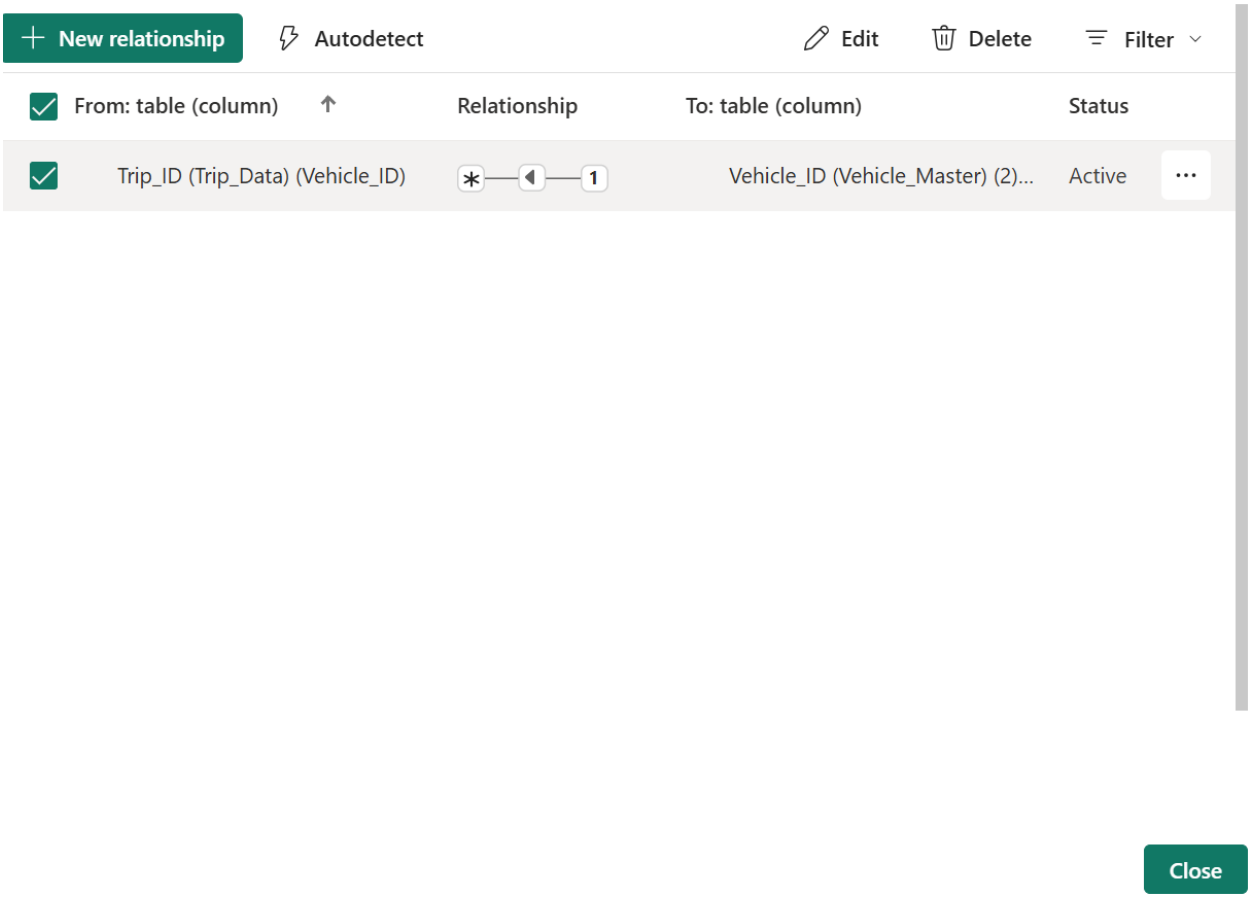
DATA CLEANING AND MODELING

1.Fix Missing Fuel Consumption Values(Using AVG).

T047	V05	D06	Hyderabad	Delhi	*572*	*61.6*	On-Time	*22-01-2023 00:00:00*
T048	V04	D01	Chennai	Bangalore	*1441*	*140.79*	Late	*28-02-2023 00:00:00*
T049	V07	D04	Bangalore	Mumbai	*1685*	*119.01*	Late	*16-02-2023 00:00:00*
T050	V06	D03	Mumbai	Delhi	*1233*	*91.35*	On-Time	*12-01-2023 00:00:00*

2.Relate Trips with Vehicle Master.




New relationship
Autodetect
Edit
Delete
Filter
From: table (column)
Relationship
To: table (column)
Status
Trip_ID (Trip_Data) (Vehicle_ID)
*
1
Vehicle_ID (Vehicle_Master) (2)...
Active
Close

DAX MEASURES

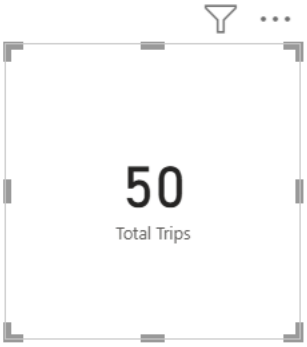
1.Fuel Efficiency

```
1  Fuel Efficiency = 'Trip_ID (Trip_Data)'[Distance_km]/'Trip_ID (Trip_Data)'[Fuel_Consumed_L]
```

ehicle_ID	Driver_ID	Origin	Destination	Distance_km	Fuel_Consumed_L	Delivery_Status	Delivery_Date	Fuel Efficiency
)4	D01	Delhi	Pune	1173	108.42	On-Time	27-01-2023 00:00:00	10.8190370780299
)6	D08	Mumbai	Bangalore	1727	161.33	On-Time	21-02-2023 00:00:00	10.7047666274097
)6	D08	Mumbai	Pune	1459	154.7	On-Time	17-02-2023 00:00:00	9.4311570782159
)4	D09	Hyderabad	Pune	382	26.6	On-Time	18-02-2023 00:00:00	14.3609022556391
)6	D08	Pune	Mumbai	398	33.2	On-Time	15-02-2023 00:00:00	11.9879518072289
)6	D07	Chennai	Mumbai	1275	85.04	Late	25-02-2023 00:00:00	14.9929444967074
)7	D03	Chennai	Kolkata	752	58.08	On-Time	19-01-2023 00:00:00	12.9476584022039
)2	D10	Delhi	Pune	74	5.24	On-Time	01-01-2023 00:00:00	14.1221374045802
)2	D07	Delhi	Hyderabad	186	16.22	On-Time	23-02-2023 00:00:00	11.4673242909988
)2	D02	Bangalore	Hyderabad	1375	105.21	Late	02-02-2023 00:00:00	13.0690998954472
)6	D03	Kolkata	Hyderabad	419	31.17	On-Time	21-01-2023 00:00:00	13.4424125761951
)6	D01	Kolkata	Delhi	751	51.77	On-Time	15-02-2023 00:00:00	14.5064709291095
)5	D04	Kolkata	Chennai	1571	188.52	Late	02-02-2023 00:00:00	8.33333333333333
)5	D05	Hyderabad	Bangalore	1524	104.51	On-Time	16-02-2023 00:00:00	14.5823366185054
)5	D06	Kolkata	Mumbai	1956	179.88	On-Time	21-01-2023 00:00:00	10.8739159439626
)5	D06	Bangalore	Mumbai	858	92.7	Late	18-01-2023 00:00:00	9.25566343042071
)7	D07	Pune	Kolkata	1269	102.91	On-Time	16-01-2023 00:00:00	12.331163152269
)7	D10	Pune	Delhi	1565	107.23	On-Time	12-02-2023 00:00:00	14.5947962323977
)7	D10	Hyderabad	Pune	1796	155.52	On-Time	28-02-2023 00:00:00	11.548353909465
)4	D02	Mumbai	Bangalore	1640	148.87	On-Time	06-01-2023 00:00:00	11.0163229663465
)7	D07	Delhi	Mumbai	446	31.98	Late	11-01-2023 00:00:00	13.9462163852408

2.On Time Delivery %

```
1  Total Trips = COUNTROWS('Trip_ID (Trip_Data)')
```



```
1 Delivered Trips = COUNTROWS(FILTER('Trip_ID (Trip_Data)', 'Trip_ID (Trip_Data)'[Delivery_Status]= "On-Time"))
```

50
Total Trips

30
Delivered Trips

Search

Filters on this visual

Delivered Trips
is (All)

Add data fields here

Filters on this page

```
1 On-Time Delivery % = DIVIDE([Delivered Trips],'Trip_ID (Trip_Data)'[Total Trips],0)
```

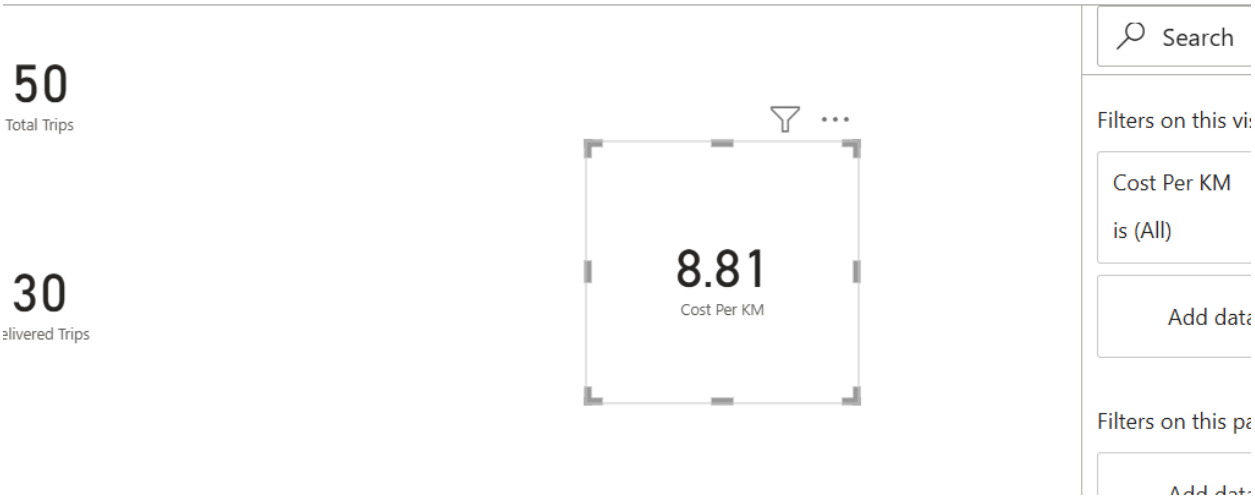
50
Total Trips

0.60
On-Time Delivery %

30
vered Trips

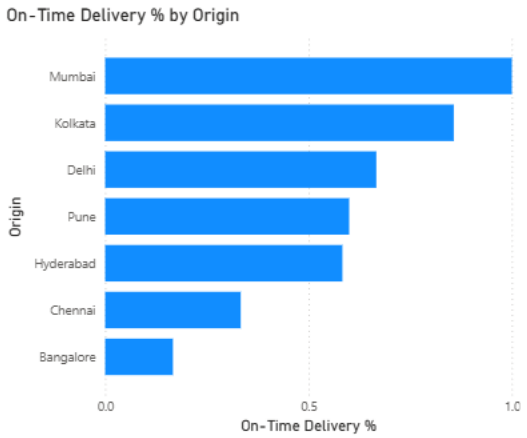
3.Cost Per KM

```
Cost Per KM = DIVIDE(sum('Trip_ID (Trip_Data)'[Fuel Cost])+sum('Vehicle_ID (Vehicle_Master) (2)'
[Maintenance_Cost]),sum('Trip_ID (Trip_Data)'[Distance_km]),0)
```

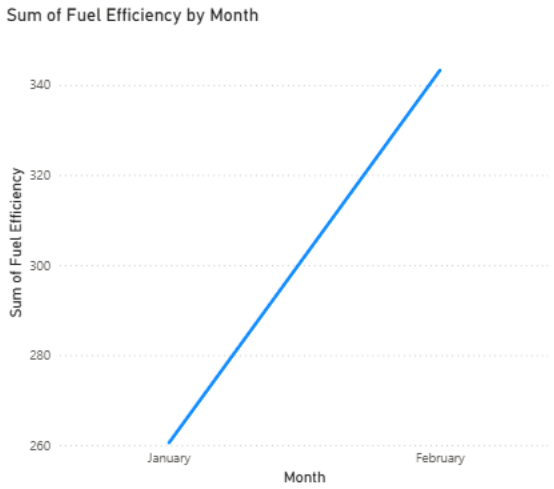


VISUALIZATION

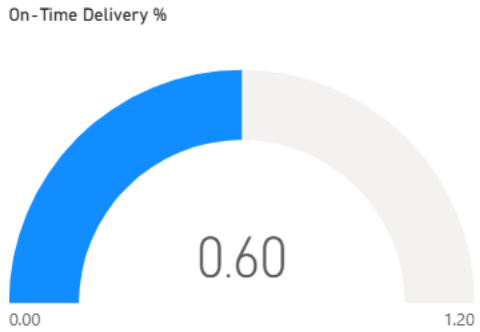
1. On-Time Delivery % by Route.



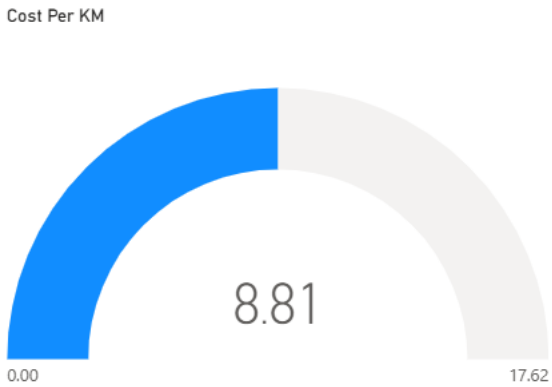
2. Fuel Efficiency trend by month.



3. Avg. Delivery Time.

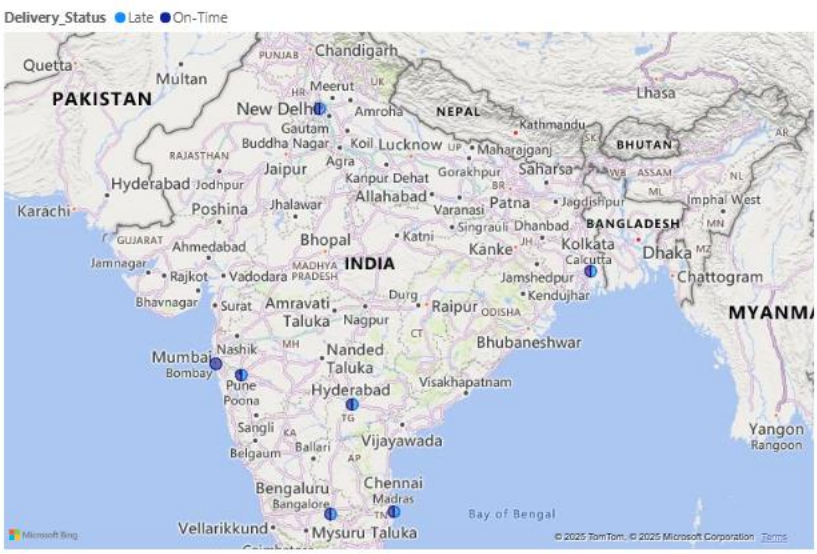


Cost per km.



4. Delivery performance by route (Origin → Destination).

Origin and Delivery_Status



Destination and Delivery_Status

EXPECTED OUTPUT

A transport operations dashboard to optimize routes and fleet usage.