myofficecab

MGMT582 Project Presentation

Group 8

Group 8 Members

myofficecab

A pioneering eco-transportation company in India

Employee transportation solution for corporations

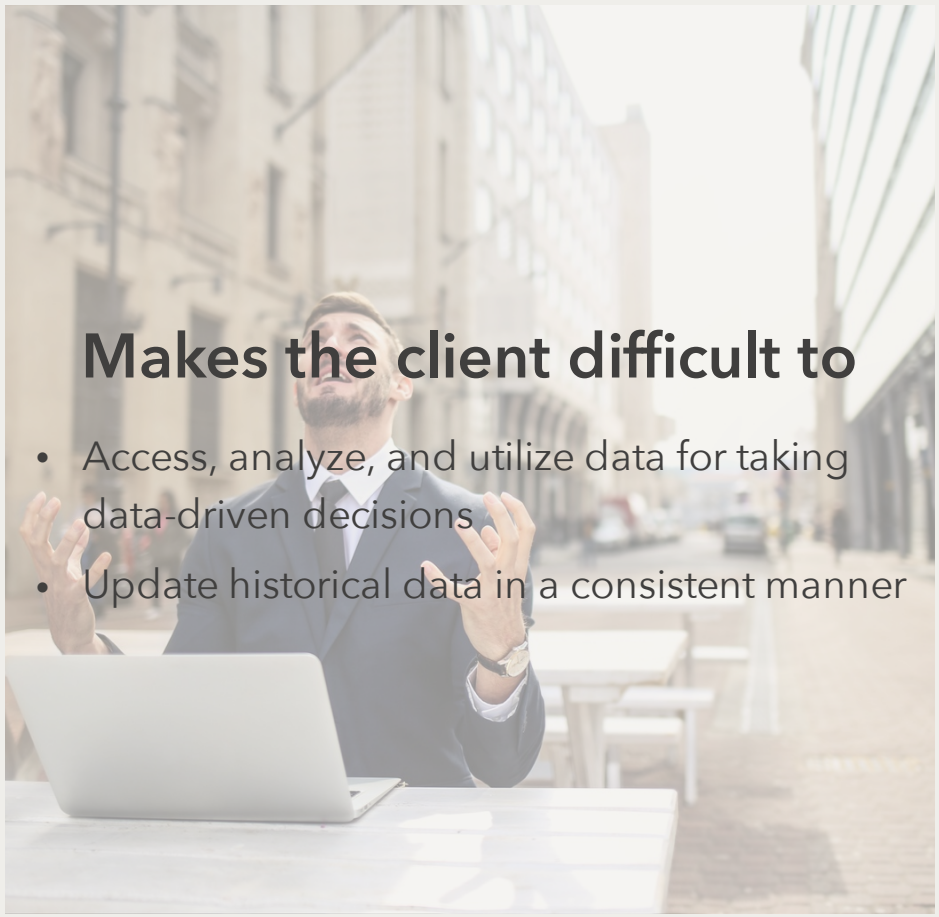
Fleet comprising various types of vehicles

Provides eco-friendly commutes

Business Problem

Absence of the digitalized and centralized database

- Currently relying heavily on offline methods for data management



Makes the client difficult to

- Access, analyze, and utilize data for taking data-driven decisions
- Update historical data in a consistent manner

Project Goal & Objectives

Goal

- Efficient management of data related to customers, transactions, fleet management, and employee details

Objectives

Developing a more structured and centralized Database Management System (DBMS) facilitated through SQL

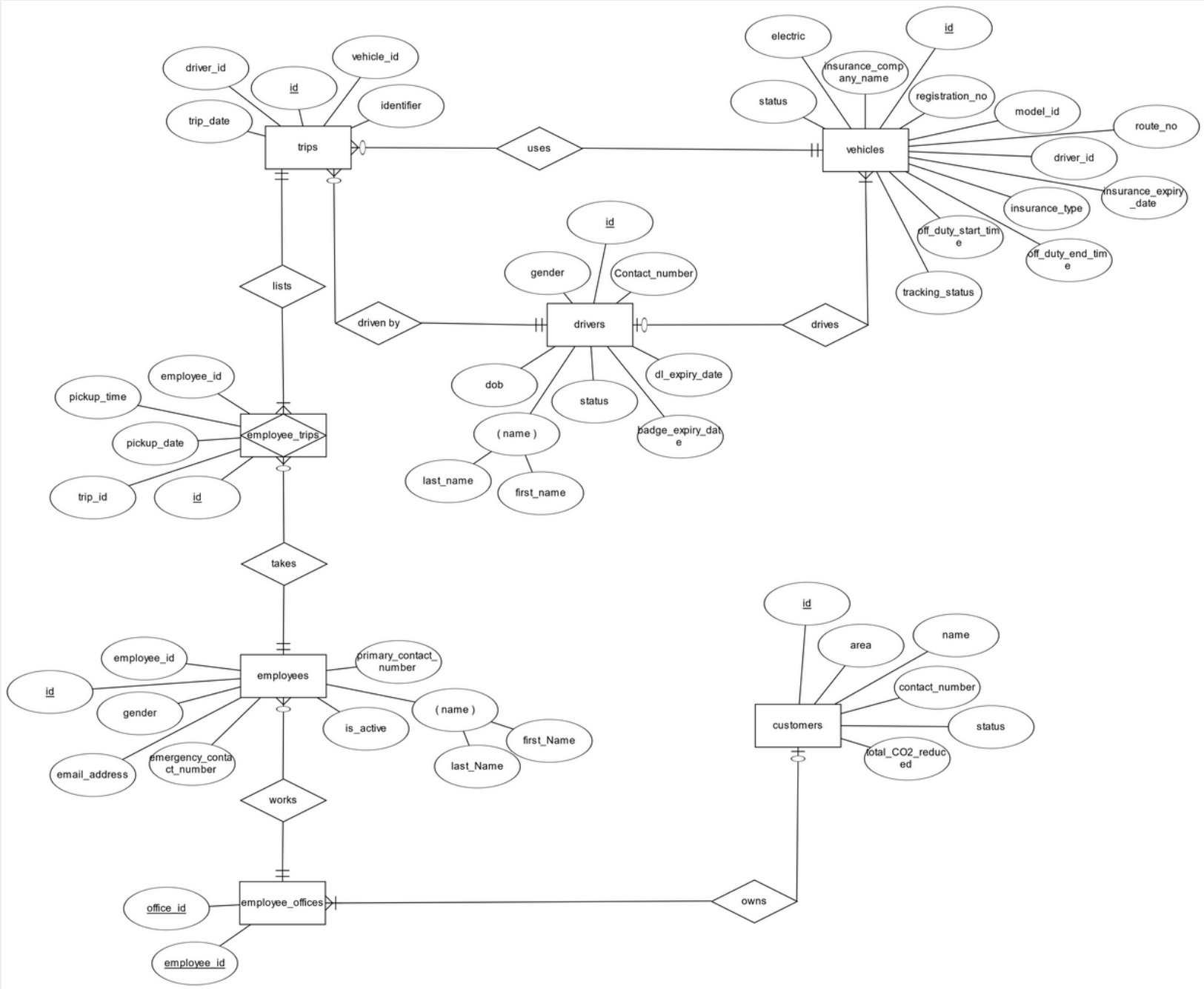
- Enhance information management
- Streamline ETL processes
- Unlock valuable insights for understanding key metrics (e.g., month-on-month trips, top drivers month-on-month, busiest days of the week)
- Identify high-profit segments and channels

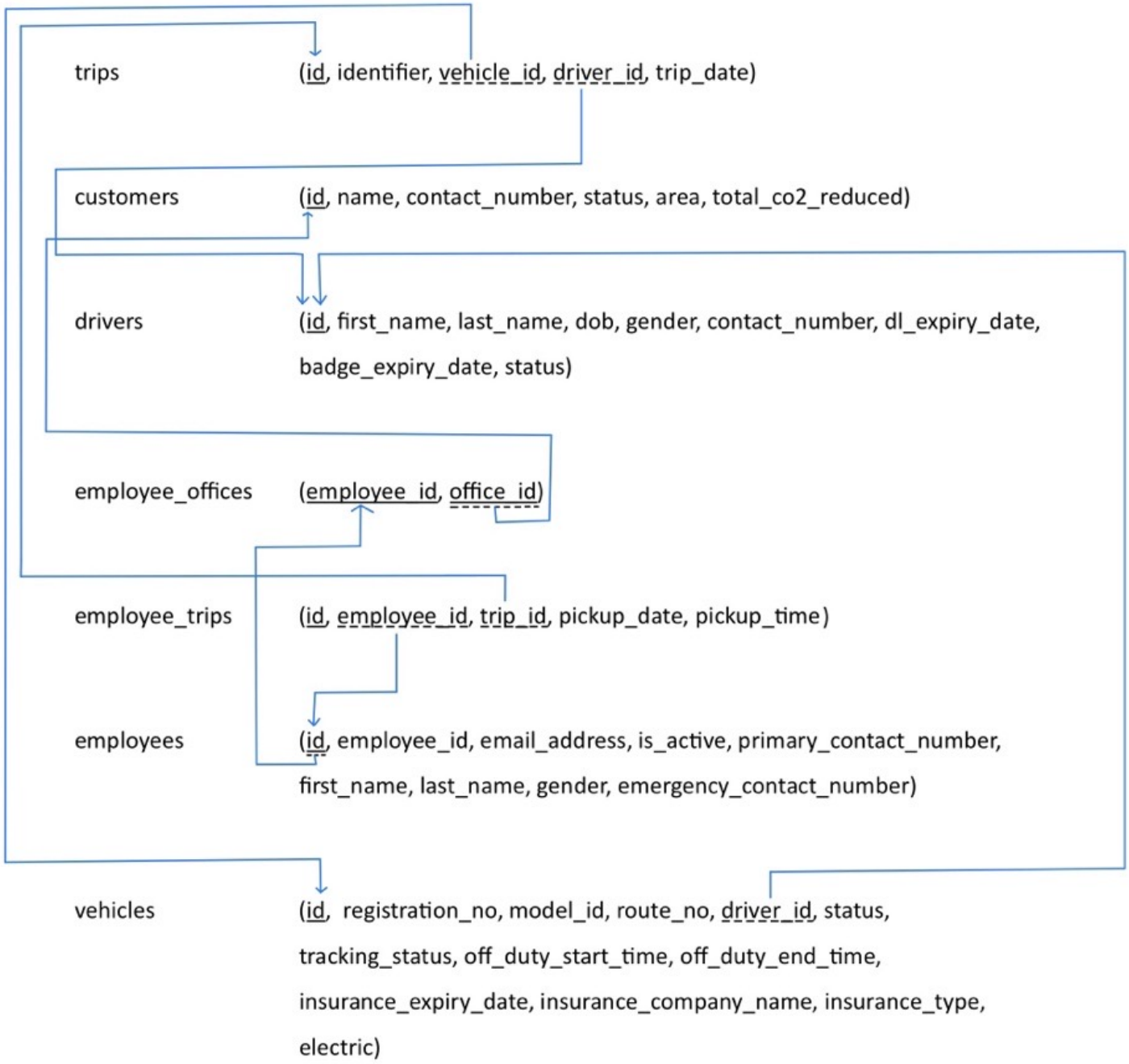
Tables and Dataset

1. **Employees**: employee details such as employee ID, employee name consisting of first name and last name, gender, email address, primary contact, emergency contact, and active status
2. **Employee_trips:** details of employees and their corresponding trips, along with pickup date, time, etc.
3. **Employee_offices**: mapping between employees and customers
4. **Trips**: data for all trips, including driver and vehicle details
5. **Vehicles**: information regarding vehicles in fleet, including insurance details and registration information
6. **Drivers**: information regarding employed drivers, including name and license expiration
7. **Customers** (i.e., offices whose employees use myofficecab): information regarding the customer names and office location

Conceptual Data Modeling

(ERD)





Relational Data Model

(Relational Schema)

Queries

Look into the data to generate meaningful insights for the client

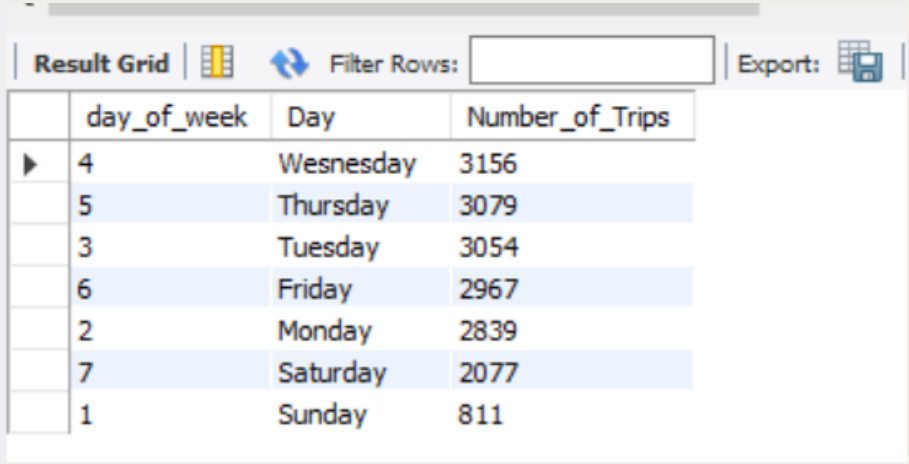
- Trend of trips over time
- Identify the busiest days of the week
- Identify the busiest times of the day
- Flag rides exposed to insurance risk
- Locate areas with high demand

Queries Example

Identifying the busiest day of the week

```sql
-- Query 4 - -- Identifying busiest day of the week
select day_of_week,
case when day_of_week =1 then 'Sunday' when day_of_week =2 then 'Monday' when day_of_week =3 then 'Tuesday'
when day_of_week =4 then 'Wesnesday' when day_of_week =5 then 'Thursday' when day_of_week =6 then 'Friday'
when day_of_week =7 then 'Saturday' else 'Error' end as "Day",count(*) as Number_of_Trips
from(
select *,
dayofweek(concat(right(trip_date,4),'-',left(trip_date,2),'-',mid(trip_date,4,2))) as day_of_week
from trips t
left join (select distinct trip_id,pickup_date,pickup_time from employee_trips) et
on t.id = et.trip_id) a
group by 1,2
order by 3 desc;
```

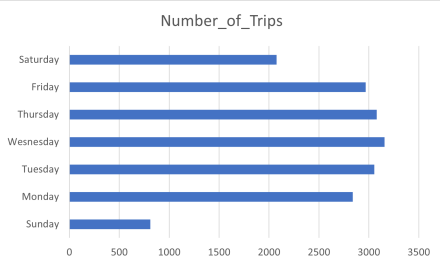
Output

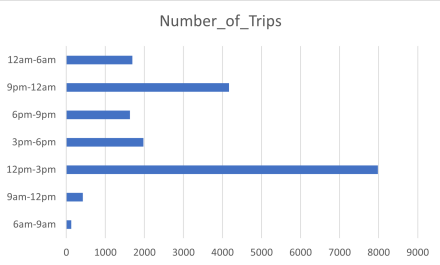


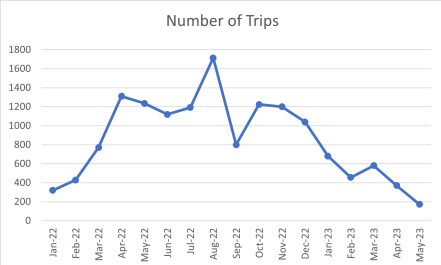
Result Grid | Filter Rows: | Export:

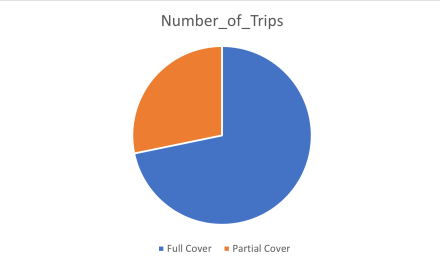
day_of_week	Day	Number_of_Trips
4	Wesnesday	3156
5	Thursday	3079
3	Tuesday	3054
6	Friday	2967
2	Monday	2839
7	Saturday	2077
1	Sunday	811

Insights









- The busiest day of the week: Wednesday and Thursday

- The busiest time slots: 12PM to 3 PM and 9PM to Midnight

- The maximum number of trips: 1714 (taken during August 2022)

- ~ 28 % of the rides were in partially insured cabs.
- The client could consider upgrading to full coverage to mitigate risks from accidents.

Future Recommendations

Minimized Manual Effort for the Billing Team

Trip sign-off status and *employee_trips* table will help manage completed trips and estimate the revenue of the trips.

Expansion of Operations

Can onboard more clients and store data in the trips table.

Future Records

Introducing new tables, such as the *feedback* table, will help the company assess their drivers in a better way.


THANK
YOU