PROJECT OVERVIEW:

Smart Ride Analytics System is a ride-booking database solution that efficiently manages users, drivers, vehicles, rides, payments, and feedback. It provides real-time insights into ride statistics, revenue generation, and service quality.

DATABASE SCHEMA:

The database will consist of the following tables

1. **Users**
    - User_id (Primary_Key)
    - Name
    - Email
    - Phone_Number
    - Registration_Date
    - Location

2. **Drivers**
    - Driver_id (Primary_Key)
    - Name
    - Vehicle_Type
    - License_No
    - Rating
    - Status

3. **Rides**
    - Ride_id (Primary_Key)
    - User_id (Foreign_Key)
    - Driver_id (Foreign_Key)
    - Pickup_Location
    - Dropoff_Location
    - Ride_Status
    - Ride_Date
    - Fare

4. **Payments**
    - Payment_id (Primary_Key)
    - Ride_id (Foreign_Key)
    - Payment_Method
    - Amount
    - Payment_Date

5. Vehicle_Details
- ➢ **Vehicle_id (Primary_Key)**
- ➢ **Driver_id (Foreign_Key)**
- ➢ **Vehicle_Type**
- ➢ **Vehicle_No**
- ➢ **Model**
- ➢ **Year**

6. Feedback
- ➢ **Feedback_id (Primary_Key)**
- ➢ **Ride_id (Foreign_Key)**
- ➢ **User_id (Foreign_Key)**
- ➢ **Rating**
- ➢ **Comments**
- ➢ **Feedback_Date**

TABLE CREATION: Using SQL statements to create a table

DDL (Data Definition Language):

Table 1:

```
CREATE TABLE users (
    user_id           int,
    name              VARCHAR(25),
    email             VARCHAR(100),
    phone_number      VARCHAR(15),
    registration_date DATE,
    location          VARCHAR(100)
);
```

(Similar create table queries for other tables)

DATA INSERTION:

DML (Data Manipulation Language):

Inserting sample data in Users table

```
insert into users values(105,'Sankar','sankaraarumuagam@gmail.com','8975461236','12-jan-2023','Kovilampakkam');
```

USER_ID	NAME	EMAIL	PHONE_NUMBER	REGISTRATION_DATE	LOCATION
100	Achutha_Raman	achusrinivasan77@gmail.com	7365842419	10-03-23	Pallavaram
101	Swetha	swethasubramian06@gmail.com	8220352454	03-04-22	Velacherry
102	Uma_Maheswari	umasrinivasan@gmail.co	7245845555	02-05-25	T.Nagar
103	Latha	lathasankar@gmail.com	9944572645	26-02-21	Meenampakkam
104	Kathir	kathirsankar@gmail.com	6235897412	03-01-18	Koyambedu
105	Sankar	sankaraarumuagam@gmail.com	8975461236	12-01-23	Kovilampakkam
106	Subathra	subathrakrish@gmail.com	9584756321	21-02-12	Thiruvaiyaru
107	Dhivya_Sri	divyasrikannan@gmail.com	7584963215	10-07-02	Sirucherry
108	Subramania_Sharma	subramaniasharma@gmail.com	7339658412	06-11-96	Medavakkam
109	Saipriya	saipriya@gmail.com	9645781235	19-09-07	Pammal
110	Venkatesh	venkateshiyar@gmail.com	7845631296	12-12-94	Maraimalainagar
111	Sneka	snekasivakumar@gmail.com	8220356545	26-12-01	Kumbakonam

Inserting data into Drivers table:

```
insert into drivers values(1018,'Mohamad','Bike','1018R866',0,'Active');
```

DRIVER_ID	NAME	VEHICLE_TYPE	LICENCE_NO	RATING	STATUS
1001	Durai_Samy	Car	1001A852	0	Active
1002	Kalidas	Auto	1002B892	1	Inactive
1003	Marimuthu	Bike	1003C853	2	Active
1004	Srinivasa_Iyar	Car	1004D854	3	Inactive
1005	Suganya	Auto	1005E855	4	Active
1006	Kannan	Bike	1006F856	5	Active
1007	Mekala	Scooty	1007G857	1	Active
1008	Karuppasamy	Car	1008H858	2	Inactive
1009	Babu	Bike	1009I859	3	Active
1010	Sundari	Auto	1010J860	4	Active
1011	Meenamma	Scooty	1011K861	5	Active
1012	Kunasekaran	Car	1012L862	0	Inactive
1013	Perumal	Auto	1013M863	1	Active

Inserting data into Rides table:

```
insert into rides values(14,113,1014,'Kumbakonam','Krishnapuram','Completed','26-jul-1996',100);
```

RIDE_ID	USER_ID	DRIVER_ID	PICKUP_LOCATION	DROPOFF_LOCATION	RIDE_STATUS	RIDE_DATE	FARE
1	100	1001	pallavaram	Velacherry	Completed	14-02-02	248
2	101	1002	Velacherry	Guidey	Cancelled	11-03-05	96
3	102	1003	T.Nagar	Virugambakkam	Ongoing	15-04-12	498
4	103	1004	Meenampakkam	Koyambedu	Completed	02-05-98	641
5	104	1005	Koyambedu	Keeladi	Cancelled	23-06-14	88
6	105	1006	Kovilampakkam	Vayalur	Completed	13-07-08	349
7	106	1007	Thiruvaiyaru	BesantNagar	Ongoing	07-02-16	680
8	107	1008	Pammal	Porur	Cancelled	02-08-18	781
9	108	1009	valasaravakkam	Tharamani	Completed	04-10-12	94
10	109	1010	Annanagar	Mambalam	Cancelled	09-01-97	257
11	110	1011	Solinganallur	Alwarpet	Ongoing	28-03-25	647
12	111	1012	Kummidipoondi	Adyar	Ongoing	24-09-22	593
13	112	1013	Vandalur	Tondiyarpet	Completed	05-11-21	110

Inserting data into Payments table:

```
insert into payments values(2011,11,'Cash',112,'10-dec-2008');
```

PAYMENT_ID	RIDE_ID	PAYMENT_METHOD	AMOUNT	PAYMENT_DATE
2001	1	Cash	450	14-01-01
2002	2	Card	276	05-02-24
2003	3	Wallet	356	15-03-02
2004	4	Cash	982	06-04-23
2005	5	Card	481	16-05-03
2006	6	Wallet	698	07-06-22
2007	7	Cash	734	17-07-04
2008	8	Cash	239	08-09-21
2009	9	Wallet	45	09-10-06
2010	10	Wallet	78	18-11-07
2011	11	Cash	112	10-12-08
2012	12	Card	437	19-01-20
2013	13	Card	620	11-02-09

Inserting data into Vehicle_Details table:

```
insert into vehicle_details values(4045,1005,'Car',9813,'Ford','14-aug-1982');
```

VEHICLE_ID	DRIVER_ID	VEHICLE_TYPE	VEHICLE_NO	MODEL	YEAR
4041	1001	Car	7836	Tesla	05-01-22
4042	1002	Auto	1496	Mahindra Alfa 3 Wheeler	09-02-02
4043	1003	Bike	6720	Royal Enfield	17-03-00
4044	1004	Scooty	7863	Suzuki Access 125	15-06-98
4045	1005	Car	9813	Ford	14-08-82
4046	1006	Auto	4037	Bajaj Compact RE 3 Wheeler	06-09-94
4047	1007	Auto	1298	Lohia Humsafar 3 Wheeler	01-10-12
4048	1008	Bike	4560	Honda	16-12-97
4049	1009	Car	6347	Nissan	08-08-09
4050	1010	Scooty	3140	Honda Activa 6G	11-07-11
4051	1011	Car	9343	Hyundai	10-05-85
4052	1012	Auto	5020	Mahindra Teeo Zor 3 Wheeler	07-01-99
4053	1013	Scooty	8888	TVS Jupiter	02-04-20

Inserting data into Feedback table:

```
insert into feedback values(703,03,102,1,'Driver was rude and unprofessional','21-sep-1996');
```

FEEDBACK_ID	RIDE_ID	USER_ID	RATING	COMMENTS	FEEDBACK_DATE
701	1	100	2	The vehicle was clean and comfortable	09-05-22
702	2	101	5	Affordable pricing and great service	11-07-24
703	3	102	1	Driver was rude and unprofessional	21-09-96
704	4	103	3	Ride was bite bumpy,but nothing major	12-11-98
705	5	104	4	Friendly conversation and excellent driving skills	22-01-00
706	6	105	1	Took a longer route unnecessarily	13-03-02
707	7	106	5	Smooth and safe journey and Highly recommended	23-06-04
708	8	107	3	Ride was bite bumpy,but nothing major	14-08-06
709	9	108	2	Driver was rude and unprofessional	24-10-08
710	10	109	4	Friendly conversation and excellent driving skills	15-12-10
711	11	110	5	Smooth and safe journey and Highly recommended	25-02-12
712	12	111	3	Ride was bite bumpy,but nothing major	01-04-14
713	13	112	2	Driver was rude and unprofessional	29-10-16

Alter, Update the records:

```sql
ALTER TABLE rides RENAME COLUMN fare TO total_fare;

ALTER TABLE payments RENAME TO transactions;


UPDATE users SET email = 'kathirsankar@gmail.com' WHERE user_id = 104;

UPDATE drivers SET phone_number = '9944572647' WHERE driver_id =1005 ;

UPDATE rides SET ride_status = 'Completed' WHERE ride_id = 10;

UPDATE vehicle_details SET vehicle_type = 'Car' WHERE vehicle_id = 4045;
```