**Task 2 : Ola Task**

CREATE DATABASE Ola;

USE ola;

**Create Tables-**

**Drivers Table-**

CREATE TABLE Drivers(DriverId int PRIMARY KEY,FirstName varchar(50),LastName varchar(50),Phone varchar(20),City varchar(50),VehicleType varchar(30),Rating float);

**Riders Table-**

CREATE TABLE Riders(RiderId int PRIMARY KEY,FirstName varchar(50),LastName varchar(50),Phone varchar(20),City varchar(30),JoinDate date);

**Rides Table-**

CREATE TABLE Rides(RideId int PRIMARY KEY,RiderId int,DriverId int,RideDate date,PickupLocation varchar(100),DropLocation varchar(100),Distance float,Fare float,RideStatus varchar(50),FOREIGN KEY (RiderId) REFERENCES riders(RiderId), FOREIGN KEY (DriverId) REFERENCES drivers(DriverId));

**Payments Table-**

CREATE TABLE Payments(PaymentId int PRIMARY KEY,RideId int,PaymentMethod varchar(50),Amount float,PaymentDate date,FOREIGN key (RideId) REFERENCES rides(RideId));

**Insert Data in the Tables-**

**Drivers-**

INSERT INTO Drivers VALUES

(1, 'Ravi', 'Kumar', '9876543210', 'Bangalore', 'Sedan', 4.5),

(2, 'Amit', 'Sharma', '9876543211', 'Delhi', 'SUV', 4.8),

(3, 'Priya', 'Verma', '9876543212', 'Mumbai', 'Hatchback', 4.2),

(4, 'Arjun', 'Singh', '9876543213', 'Chennai', 'Sedan', 4.7),

(5, 'Meena', 'Reddy', '9876543214', 'Hyderabad', 'SUV', 4.6),

(6, 'Suresh', 'Nair', '9876543215', 'Kochi', 'Hatchback', 4.3),

(7, 'Lakshmi', 'Iyer', '9876543216', 'Pune', 'Sedan', 4.4),

(8, 'Raj', 'Malhotra', '9876543217', 'Jaipur', 'SUV', 4.9),

(9, 'Anita', 'Gupta', '9876543218', 'Kolkata', 'Hatchback', 4.1),

(10, 'Karan', 'Kapoor', '9876543219', 'Chandigarh', 'Sedan', 4.3);

**Riders-**

INSERT INTO Riders VALUES

(1, 'Anil', 'Mehta', '9876543220', 'Bangalore', '2024-01-15'),

(2, 'Sunita', 'Das', '9876543221', 'Delhi', '2024-02-10'),

(3, 'Rajesh', 'Yadav', '9876543222', 'Mumbai', '2024-03-05'),

(4, 'Pooja', 'Rana', '9876543223', 'Chennai', '2024-04-20'),

(5, 'Vikram', 'Joshi', '9876543224', 'Hyderabad', '2024-05-25'),

(6, 'Neha', 'Kashyap', '9876543225', 'Kochi', '2024-06-30'),

(7, 'Rahul', 'Chopra', '9876543226', 'Pune', '2024-07-15'),

(8, 'Swati', 'Mishra', '9876543227', 'Jaipur', '2024-08-05'),

(9, 'Asha', 'Roy', '9876543228', 'Kolkata', '2024-09-12'),

(10, 'Kunal', 'Bhatia', '9876543229', 'Chandigarh', '2024-10-18');

**Rides-**

INSERT INTO Rides VALUES

(1, 1, 1, '2024-11-01', 'Indiranagar', 'MG Road', 5.0, 150.00, 'Completed'),

(2, 2, 2, '2024-11-02', 'Connaught Place', 'Rajiv Chowk', 3.0, 100.00, 'Completed'),

(3, 3, 3, '2024-11-03', 'Andheri', 'Bandra', 10.0, 300.00, 'Completed'),

(4, 4, 4, '2024-11-04', 'Adyar', 'Velachery', 8.0, 250.00, 'Cancelled'),

(5, 5, 5, '2024-11-05', 'Banjara Hills', 'Hitech City', 12.0, 400.00, 'Completed'),

(6, 6, 6, '2024-11-06', 'Marine Drive', 'Ernakulam', 6.0, 200.00, 'Ongoing'),

(7, 7, 7, '2024-11-07', 'Kothrud', 'Shivaji Nagar', 7.0, 220.00, 'Completed'),

(8, 8, 8, '2024-11-08', 'Amer Fort', 'Hawa Mahal', 4.0, 120.00, 'Completed'),

(9, 9, 9, '2024-11-09', 'Salt Lake', 'Howrah', 15.0, 500.00, 'Completed'),

(10, 10, 10, '2024-11-10', 'Sector 17', 'Rock Garden', 9.0, 300.00, 'Completed');

**Payments-**

INSERT INTO Payments VALUES

(1, 1, 'Card', 150.00, '2024-11-01'),

(2, 2, 'Cash', 100.00, '2024-11-02'),

(3, 3, 'Wallet', 300.00, '2024-11-03'),

(4, 5, 'Card', 400.00, '2024-11-05'),

(5, 6, 'Cash', 200.00, '2024-11-06'),

(6, 7, 'Wallet', 220.00, '2024-11-07'),

(7, 8, 'Card', 120.00, '2024-11-08'),

(8, 9, 'Cash', 500.00, '2024-11-09'),

(9, 10, 'Wallet', 300.00, '2024-11-10'),

(10, 4, 'Card', 250.00, '2024-11-04');

**Assignment Queries**

1. **Retrieve the names and contact details of all drivers with a rating of 4.5 or higher.**

SELECT FirstName, LastName, Phone from drivers where Rating>=4.5;

1. **Find the total number of rides completed by each driver.**

SELECT DriverId,COUNT(\*) as TotalRides

FROM rides

WHERE RideStatus = 'Completed'

GROUP BY DriverId;

1. **List all riders who have never booked a ride.**

SELECT FirstName,LastName FROM

riders

where RideRID NOT IN (SELECT RiderId FROM rides);

1. **Calculate the total earnings of each driver from completed rides.**

SELECT d.DriverId,d.FirstName,d.LastName,

sum(p.Amount) AS TotalEarnings

FROM drivers AS d

JOIN rides as r

on d.DriverId = r.DriverId

JOIN payments as p

on r.RideId = p.RideId

WHERE r.RideStatus = 'Completed'

GROUP BY d.DriverId,d.FirstName,d.LastName;

1. **Retrieve the most recent ride for each rider.**

SELECT r.RiderId,r.FirstName,r.LastName,ri.RideId,ri.RideDate

FROM riders as r

JOIN rides as ri

on r.RiderId = ri.RiderId

WHERE ri.RideDate =(

SELECT max(RideDate)

FROM rides as ri2

WHERE ri2.RiderId = r.RiderId );

1. **Count the number of rides taken in each city.**

SELECT city,COUNT(\*) AS TotalRides

from riders as r

JOIN rides as ri

on r.RiderId = ri.RiderId

GROUP BY city;

1. **List all rides where the distance was greater than 20 km.**

SELECT RideId ,RiderID,DriverId,Distance,RideStatus

FROM rides

where distance >20;

1. **Identify the most preferred payment method.**

SELECT PaymentMethod, count(\*) as count

from payments

GROUP by PaymentMethod

order by COUNT desc

LIMIT 1;

1. **Find the top 3 highest-earning drivers.**

SELECT d.DriverId,d.FirstName,d.LastName,sum(p.amount) as TotalEarnings

from drivers as d

JOIN rides as r

ON d.DriverId=r.DriverId

JOIN payments as p

ON r.RideId = p.RideId

WHERE r.RideStatus='Completed'

GROUP BY d.DriverId,d.FirstName,d.LastName

order by TotalEarnings DESC

limit 3;

1. **Retrieve details of all cancelled rides along with the rider's and driver's names**

SELECT ri.RideId,ri.RideDate,r.FirstName as RiderFirstName,r.LastName as RiderLastName,d.FirstName as DriverFirstName,d.LastName as DriverLastName,ri.RideStatus

from rides as ri

JOIN riders as r

ON ri.RiderId = r.RiderId

JOIN drivers as d

ON ri.DriverId = d.DriverId

where ri.RideStatus = 'Cancelled';