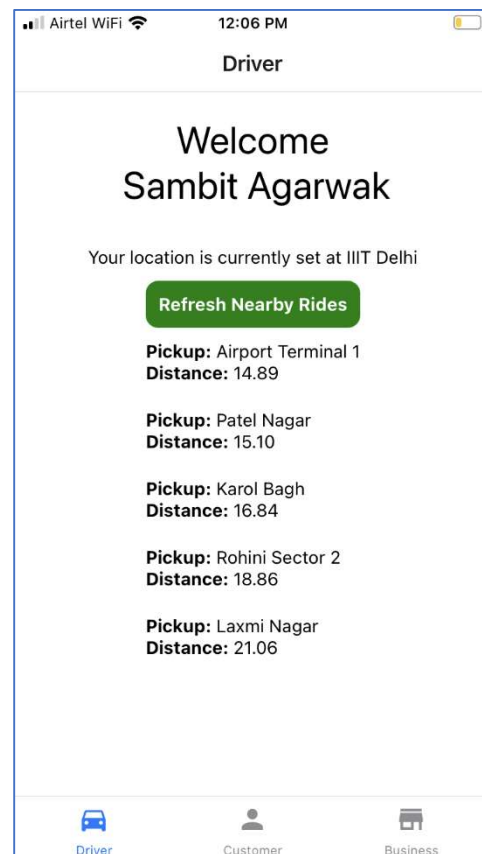
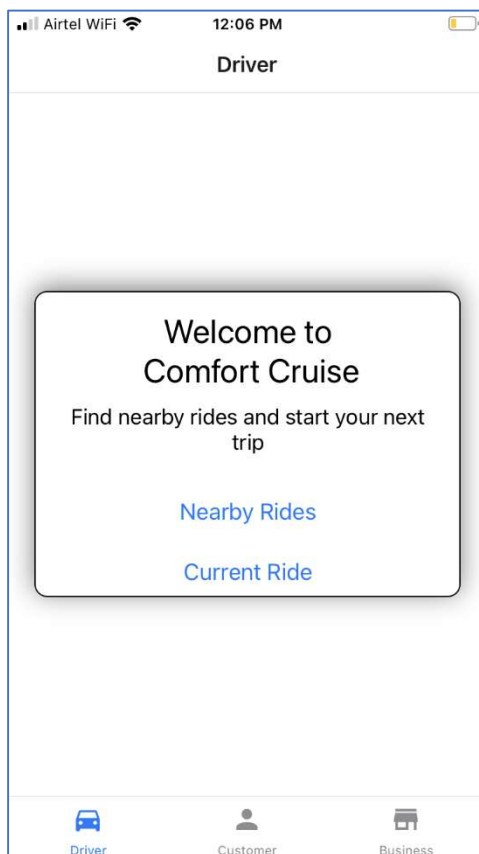


ComfortCruise (CC)

ComfortCruise (CC) is a comprehensive ride booking application that offers a seamless platform for customers to book rides. The application boasts of three distinct dashboards, namely the driver dashboard, customer dashboard, and business analytics and growth dashboard. These dashboards enable users to manage and monitor their rides, track their business growth, and gain valuable insights into their operations. With CC, users can enjoy a hassle-free booking experience and access a range of features that cater to their individual needs. Whether you are a driver looking to manage your rides or a customer seeking a convenient way to book rides, CC has got you covered.

ComfortCruise is proud to offer a diverse range of cab options to cater to the unique needs and preferences of our customers. Our fleet includes popular options such as Go, Moto, Lux, XL, and Prime cabs. Whether you need a budget-friendly ride or a luxurious travel experience, we have got you covered. Our Go and Moto cabs are perfect for those looking for an affordable yet comfortable ride, while our Lux and Prime cabs are ideal for customers seeking a premium travel experience. Our XL cabs are perfect for groups or families traveling together. No matter which cab you choose, we guarantee a safe and comfortable ride to your destination.

1. Driver Dashboard



The Driver Dashboard provides a warm welcome message along with an option to view nearby rides to book, as well as currently booked rides. By clicking on the "Nearby Rides" option, the driver is directed to a screen where upcoming rides available for booking are displayed in order, along with the current location of the rider.

The list of nearby rides is fetched using the following SQL query:

```
SELECT Driver_Id, v4.s SourceName, v4.cl CurrentLocation, v4.Ride_id, v4.date,  
       sqrt(power((a.X_Coordinate-b.X_Coordinate),2)+power((a.Y_Coordinate-b.Y_Coordinate),2)) as  
       Distance  
FROM v4  
JOIN location a ON a.Location_Name = v4.s  
JOIN location b ON b.Location_Name = v4.cl  
WHERE Driver_Id = 94 AND v4.date NOT IN  
       (SELECT ride.Date FROM ride WHERE Driver_id = 94 AND Status = 'Booked')  
ORDER BY Distance;
```

This query fetches the Driver ID, Source Name, Current Location, Ride ID, and Date of the nearby rides, as well as the distance between the driver and each ride.

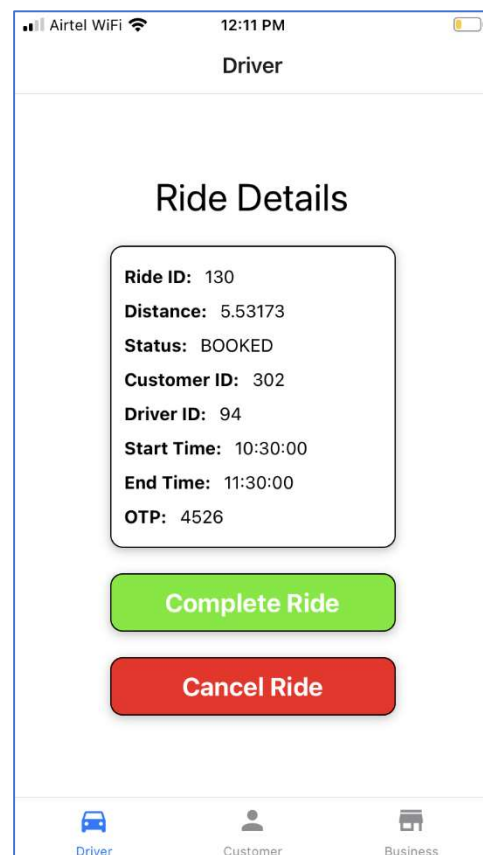
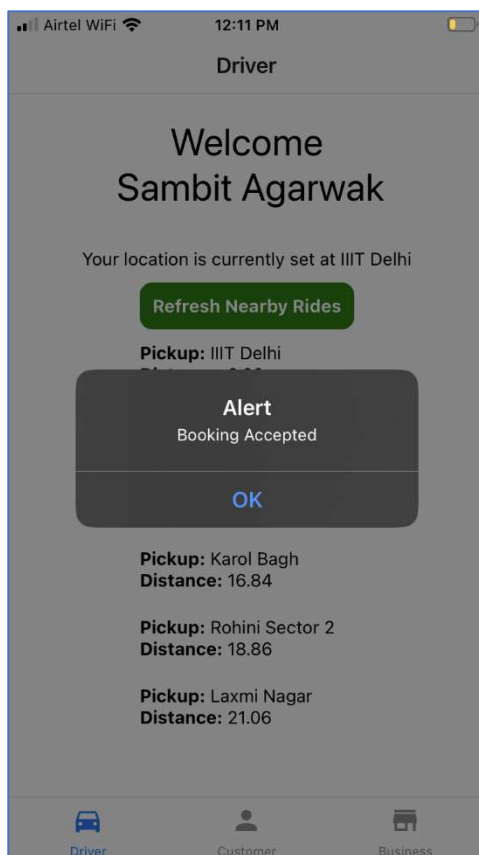
The Driver Dashboard also provides a personalized touch, displaying the driver's name and current location. All driver details, except for the driver ID, are fetched from the server and not stored on the device. Additionally, the screen features a button to refresh nearby rides and fetch the latest data.

```
Select * from driver where Driver_Id=${req.body.Driver_Id}
```

When a driver clicks on any nearby ride from the list, a request is sent to the server to book the ride. Once the server receives the request, it processes the booking and sends a response to the driver's device. If the booking is successful, an alert is displayed to the driver indicating that the ride has been accepted.

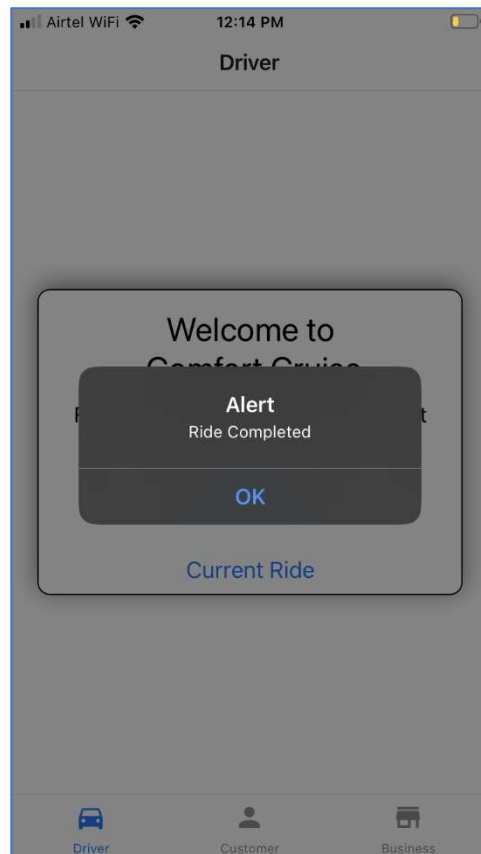
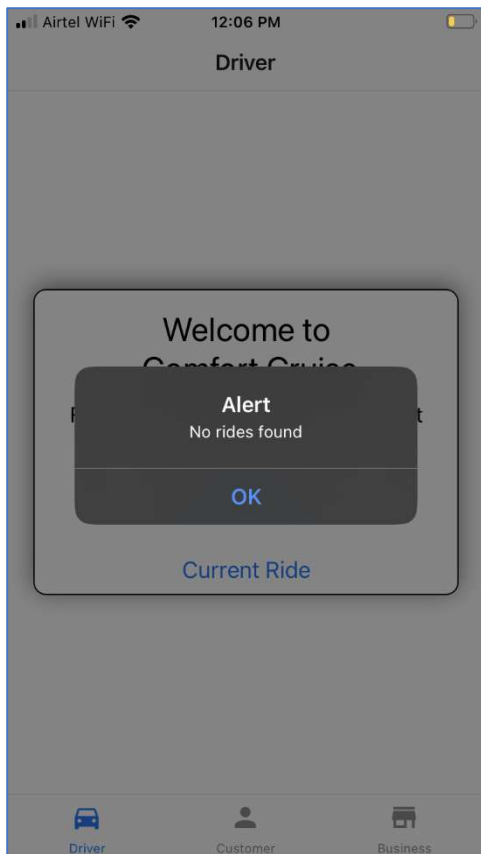
```
update ride set Status='BOOKED' where Ride_id=" + req.body.Ride_id + ';
```

The driver can then navigate to the pickup location and begin the ride with the customer.



Once the ride has been completed, the driver can click on the "Complete Ride" button to finish the trip. If the driver needs to cancel the ride for any reason, they can do so by clicking on the "Cancel Ride" button.

To ensure the safety and validity of the ride, the driver is provided with a randomly generated OTP (One-Time Password) that matches with the customer's OTP. This OTP serves as a verification mechanism to confirm that the driver has picked up the correct passenger and that the ride is legitimate.



```
'select * from ride where Customer_Id=' + req.body.Customer_Id + " and Status!='COMPLETED' order by Start_time limit 1;"
```

#Ride Cancellation Transaction

'Start transaction;'

'set @cc=0;'

'set @cust=NULL;'

'set @driv=NULL;'

'Select @cc:=Cost,@cust:=Customer_Id,@driv:=Driver_Id from ride where ride_id=' + req.body.Ride_id + ' ;'

'delete from ride where Ride_id=' + req.body.Ride_id + ' ;'

'delete from proposed_booking where Ride_id=' + req.body.Ride_id + ' ;'

'Update customer set Wallet=Wallet-@cc*(10/100) where Customer_id=@cust;'

'Update driver set Earnings=Earnings+@cc*(10/100) where Driver_id=@driv;'

'Commit;'

#Ride Completion Transaction

Start Transaction;

'Update customer join ride on Ride.Customer_Id=customer.Customer_id set Wallet=Wallet-Ride.Cost where customer.Customer_id=' + req.body.Customer_id + ';

'Update driver join ride on Ride.Driver_Id=driver.Driver_id set Earnings=Earnings+Ride.Cost where driver.Driver_id=' + req.body.Driver_id + ';

'Update customer join ride on Ride.Customer_Id=customer.Customer_id set Rating=(Rating*No_of_Trips+4.0)/(No_of_Trips+1) where customer.Customer_id=' + req.body.Customer_id + ';

'Update driver join ride on Ride.Driver_Id=driver.Driver_id set Rating=(Rating*No_of_Trips+4.0)/(No_of_Trips+1) where driver.Driver_id=' + req.body.Driver_id + ';

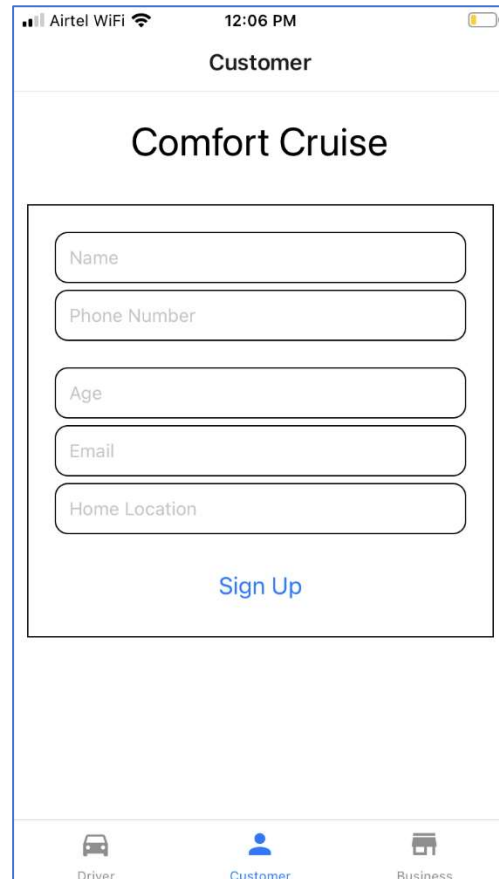
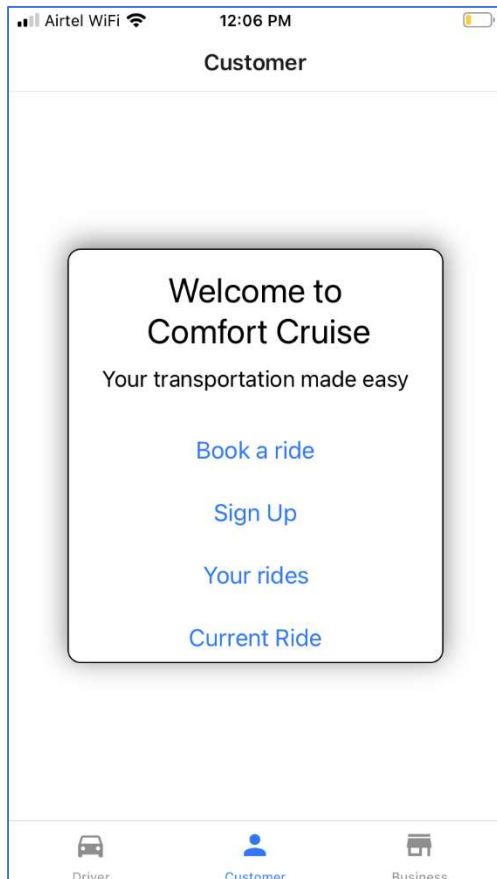
'Update customer join ride on Ride.Customer_Id=customer.Customer_id set No_of_Trips=No_of_Trips+1 where customer.Customer_id=' + req.body.Customer_id + ';

'Update driver join ride on Ride.Driver_Id=driver.Driver_id set No_of_Trips=No_of_Trips+1 where driver.Driver_id=' + req.body.Driver_id + ';

'Update ride set Status="COMPLETED" where ride_id=' + req.body.Ride_id + ';

'Commit;'

2. Customer Dashboard



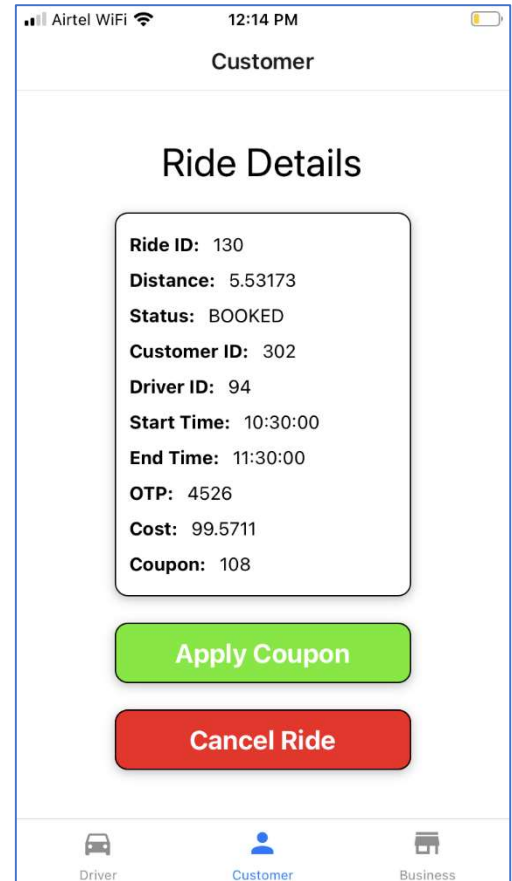
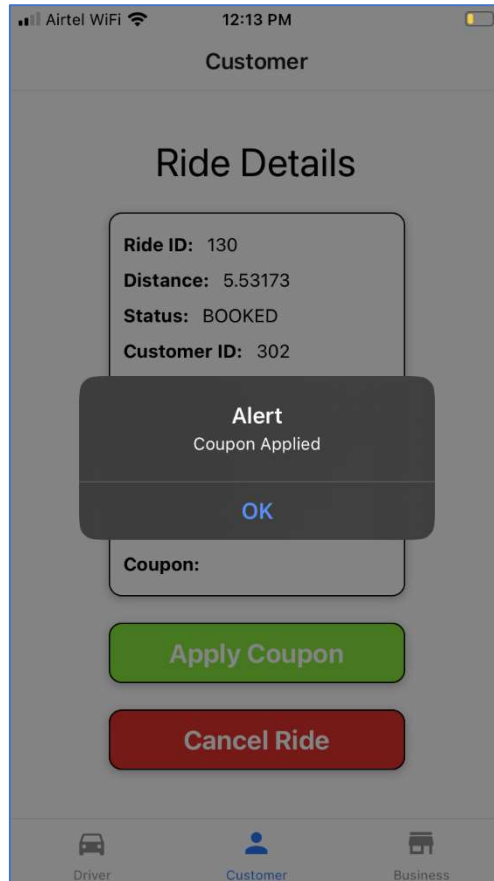
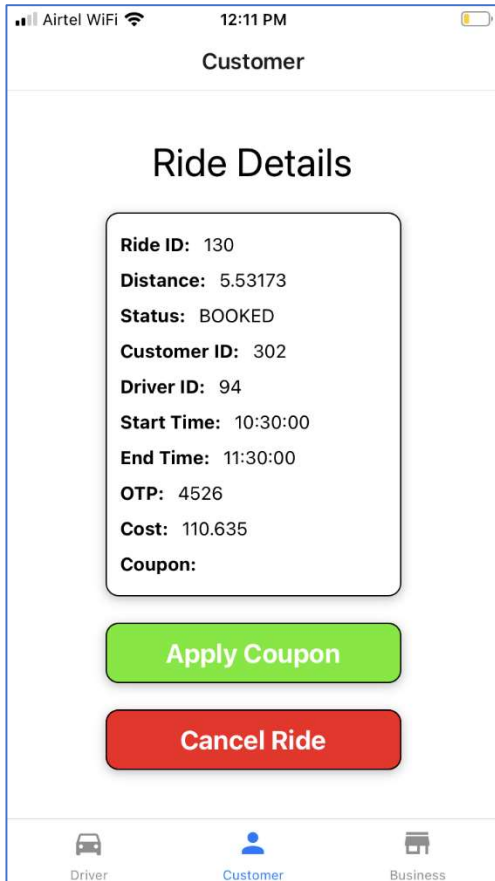
The customer dashboard greets the user and provides an easy sign-up process for new customers. The dashboard is equipped with a range of features, including ride booking, viewing past rides, and checking currently booked rides.

```
"INSERT INTO customer (Age, Name, Wallet, Phone_Number, Email_Address, Rating, No_of_Trips, Home_Location) VALUES ('" + req.body.Age + "', '" + req.body.Name + "', '" + req.body.Wallet + "', '" + req.body.Phone_Number + "', '" + req.body.Email_Address + "', '" + req.body.Rating + "', '" + req.body.No_of_Trips + "', '" + req.body.Home_Location + "')
```

To book a ride, the customer can input the pickup location, drop-off location, and select the type of cab they prefer from the available options. Once the ride is requested, the customer is alerted with the total distance calculated from the server.

The screenshot shows the 'Customer' dashboard with a 'Book Ride Now!' section. The form includes input fields for: Phone Number (302), Source, Destination, Date (2023-04-21), Time (10:30:00), Time (11:30:00), and Vehicle Type. A blue 'Book' button is at the bottom. The bottom navigation bar has three icons: Driver, Customer (selected), and Business.

The screenshot shows the same 'Customer' dashboard, but with a dark overlay alert box in the center. The alert text reads: 'Alert', 'Ride Requested Successfully! Total Distance: 5.53173 km', and an 'OK' button. The background form and navigation bar are dimmed.



After successful ride booking, the customer can view the details of the ride, including the driver's information, the expected arrival time, and the fare estimate. The customer is also provided with an option to apply any coupon code if available. The best coupon is automatically fetched from the server and fare is reduces accordingly. The customer is also provided with an option to cancel the ride in case they wish to.

```
'select * from ride where Customer_Id=' + req.body.Customer_Id + " and Status!='COMPLETED'
order by Start_time limit 1;'
```

#Cancel Ride Transaction

```
'Start transaction;'
'set @cc=0;'
'set @cust=NULL;'
'set @driv=NULL;'
'Select @cc:=Cost,@cust:=Customer_Id,@driv:=Driver_Id from ride where ride_id='
+ req.body.Ride_id + ' ';
'delete from ride where Ride_id=' + req.body.Ride_id + ' ';
'delete from proposed_booking where Ride_id=' + req.body.Ride_id + ' ';
'Update customer set Wallet=Wallet-@cc*(10/100) where Customer_id=@cust;'
'Update driver set Earnings=Earnings+@cc*(10/100) where Driver_id=@driv;'
'Commit;'
```

Best Coupon Apply Transaction

```
'Start Transaction;'
'SET @max_copoun=0;'
'SET @c_code=NULL;'
'Select @max_copoun:=max(Discount_percent),@c_code:=Coupon_ID from coupons where
Customer_ID=' + req.body.Customer_id + ' and curdate()<coupons.Expiry_Date group by
Coupon_ID;'
'Update Ride set Coupon_code=@c_code where Ride_id=' + req.body.Ride_id + ' ';
'Update ride inner join (Select coupons.Discount_percent as d from ride join coupons on
coupons.Customer_ID=ride.Customer_id where ride.Ride_id=' + req.body.Ride_id + ') t1 On
ride.Ride_id=' + req.body.Ride_id + ' set Cost= ((100-t1.d)/100)* Case When Vehicle_Type="Go" Then
Distance*7.8 When Vehicle_Type="Prime" Then Distance*10.6 When Vehicle_Type="Moto" Then
Distance*3.6 When Vehicle_Type="XL" Then Distance*14.5 When Vehicle_Type="Lux" Then
Distance*20 End where Ride_id=' + req.body.Ride_id + ' And Coupon_Code is not null;'
'Delete from coupons where Coupon_ID=@c_code and Customer_ID=' + req.body.Customer_id + ' ';
'Commit;'
```




Customer

Past Rides

Ride ID	Driver Name	Source	Destination	Date	Co
24	Malviya Nagar	2023-02-09T18:30:00.000Z			
58	Balabhgarh	2023-02-09T18:30:00.000Z	94		
128	IIIT Delhi	2023-04-20T18:30:00.000Z	99.5		

In addition to booking a ride, the customer dashboard also allows customers to view their past rides, including details such as the date, time, pickup and drop-off locations, and the fare charged. This information can be useful for tracking expenses and keeping a record of past trips.

Overall, the customer dashboard is designed to provide a seamless and efficient ride booking experience for users, with easy access to ride details and a range of useful features to enhance the customer experience.



Driver



Customer



Business

3. Business Analytics and Growth Dashboard

Airtel WiFi

12:08 PM

Business

Business Performance Dashboard

[Go to Analysis](#)

[Go to Vehicle and Driver Revenue](#)

[Go to Yearly Revenue](#)

[Go to Age Wise Revenue](#)

[Check Proposed Booking](#)

DriverCustomerBusiness

Airtel WiFi

12:06 PM

Business

Analysis

Source	Vehicle	Jan	Feb	Mar	Apr	May	Jun	Jul
Welcome	Moto	0	1	0	0	0	0	0
Welcome	Prime	0	1	0	0	0	0	0
AIIMS	Go	0	1	0	0	0	0	0
AIIMS	XL	0	1	0	0	0	0	0
Airport Terminal 1	Go	0	1	0	0	0	0	0
Airport Terminal 1	Lux	0	1	0	0	0	0	0
Airport Terminal 1	Moto	0	1	0	0	0	0	0
Airport Terminal 1	XL	0	1	0	0	0	0	0
Airport Terminal 3	Lux	0	1	0	0	0	0	0
Akshardham	XL	0	1	0	0	0	0	0
Anand Vihar	Lux	0	1	0	0	0	0	0
Anand Vihar	Prime	0	1	0	0	0	0	0

DriverCustomerBusiness

Airtel WiFi

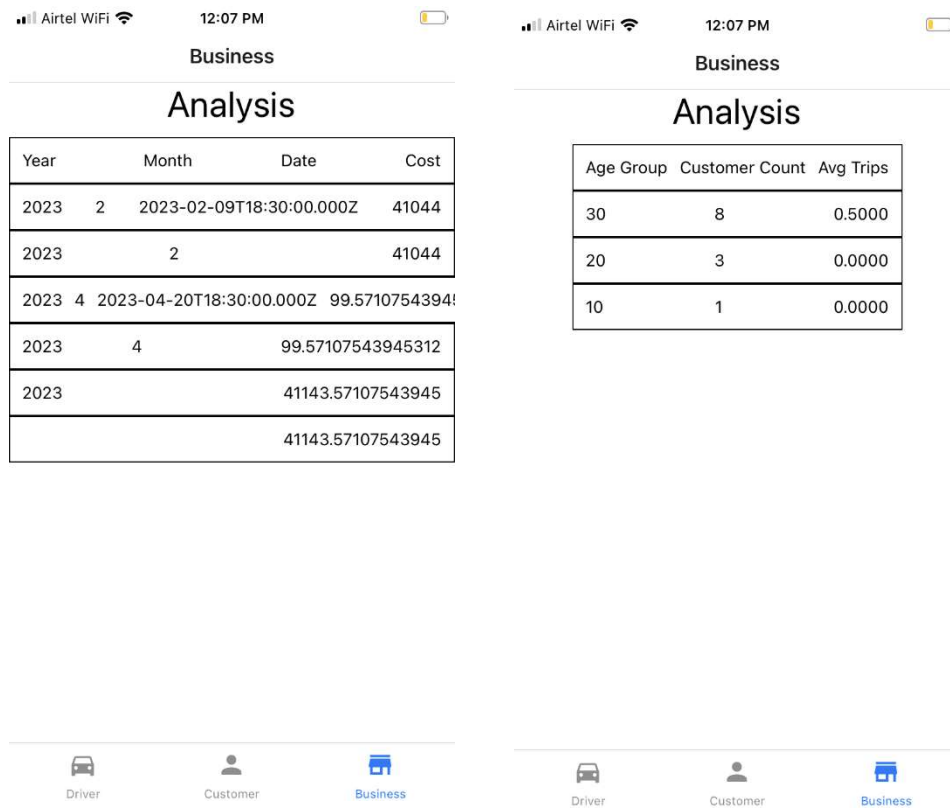
12:07 PM

Business

Analysis

Vehicle	Driver	Total Cost
Go	1	222
Go	11	248
Go	18	3159
Go	30	2911
Go	34	203
Go	39	4569
Go	58	2888
Go	67	1964
Go	72	1555
Go		17719
Lux	9	254
Lux	28	887

DriverCustomerBusiness



The business analytics and growth dashboard is a powerful tool that leverages OLAP (Online Analytical Processing) queries to provide valuable insights into the revenue generated by ComfortCruise through the application. The dashboard is equipped with various analysis tools that enable a detailed month-wise report of revenue generated, vehicle performance, and individual driver performance reports, as well as yearly revenue and revenue generated by various age groups.

The month-wise report allows the user to view the revenue generated by ComfortCruise on a monthly basis, providing insights into the trends and patterns of the business. This information can be used to identify areas of growth and areas that need improvement, helping to drive business decisions.

The vehicle and corresponding driver performance report enables the user to view the performance of each vehicle and driver revenue generated. This information can be used to identify top-performing vehicles and drivers, as well as areas where improvements can be made to enhance the overall customer experience.

The yearly revenue report provides an overview of the revenue generated by ComfortCruise over the course of a year, giving insights into the growth and success of the business. This information can be used to identify trends and patterns in revenue generation, enabling the business to make informed decisions about future growth and expansion.

Finally, the revenue generated by various age groups report provides insights into the demographics of the customer base, enabling the business to target marketing and advertising efforts to specific age groups for maximum impact.

Overall, the business analytics and growth dashboard is a powerful tool for understanding the performance and growth of ComfortCruise, providing valuable insights into revenue generation and enabling the business to make informed decisions about future growth and expansion.

```
SELECT
    SourceName,Vehicle_Type,
    Count(Case when Month(Date)=1 then Ride_id end) as 'January',
    Count(Case when Month(Date)=2 then Ride_id end) as 'February',
    Count(Case when Month(Date)=3 then Ride_id end) as 'March',
    Count(Case when Month(Date)=4 then Ride_id end) as 'April',
    Count(Case when Month(Date)=5 then Ride_id end) as 'May',
    Count(Case when Month(Date)=6 then Ride_id end) as 'June',
    Count(Case when Month(Date)=6 then Ride_id end) as 'June',
    Count(Case when Month(Date)=7 then Ride_id end) as 'July',
    Count(Case when Month(Date)=8 then Ride_id end) as 'August',
    count(Case when Month(Date)=9 then Ride_id end) as 'September',
    Count(Case when Month(Date)=10 then Ride_id end) as 'October',
    count(Case when Month(Date)=11 then Ride_id end) as 'November',
    Count(Case when Month(Date)=12 then Ride_id end) as 'December'
    from ride
group by SourceName,Vehicle_Type
order by SourceName;
```

```
SELECT
    Vehicle_Type,
    Driver_Id,
    SUM(Cost) AS TotalCost
FROM ride
where Status='COMPLETED'
Group By Vehicle_Type, Driver_Id, Customer_Id With ROLLUP;
```

```
Select Year(Date) as Y,Month(Date) as M,Date,Sum(Cost) from ride
where Status='COMPLETED'
Group by Year(Date),Month(Date),Date with Rollup;
```

```
SELECT floor(Age/10)*10 as Age_Group, COUNT(Customer_id) as customer_count, AVG(No_of_Trips)
as avg_trips
FROM customer
WHERE Home_Location = 'Hauz Khas'
GROUP BY floor(Age/10)*10;
```

Technology Behind ComfortCruise

ComfortCruise is a cutting-edge platform built using the latest technologies. The frontend of the platform is built on the React Native framework, leveraging Expo libraries to enable the app to run seamlessly on both iOS and Android mobile platforms. The platform utilizes JavaScript to create API endpoints that interact with the data stored in a relational SQL database hosted on the network.

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