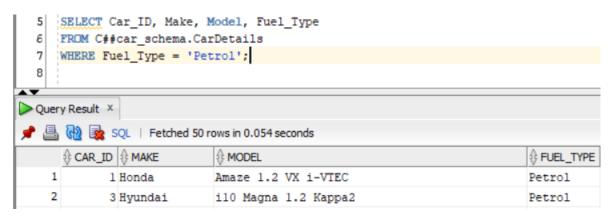
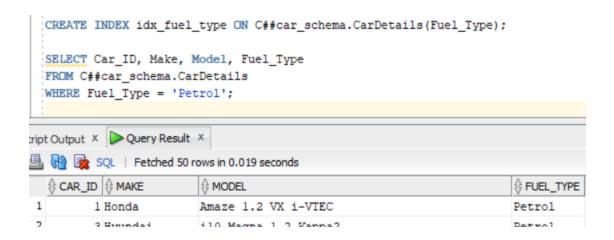
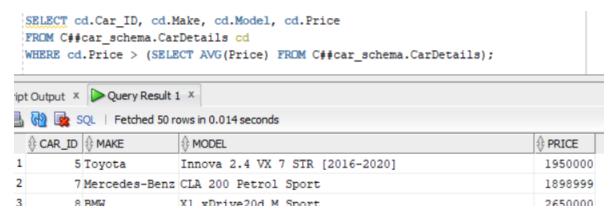
## Query with and without Index





## Query with Subquery vs. Rewritten Join



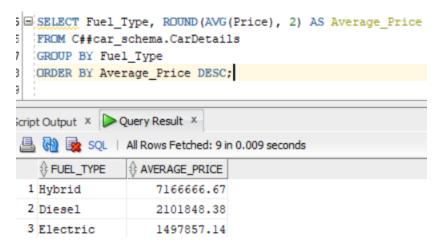
```
SELECT cd.Car_ID, cd.Make, cd.Model, cd.Price
  FROM C##car schema.CarDetails cd
  JOIN (SELECT AVG(Price) AS AvgPrice FROM C##car_schema.CarDetails) avg_table
 ON cd.Price > avg_table.AvgPrice;
cript Output X Query Result X
🚇 🙀 🗽 SQL | Fetched 50 rows in 0.009 seconds
  ⊕ CAR_ID ⊕ MAKE

⊕ MODEL

⊕ PRICE

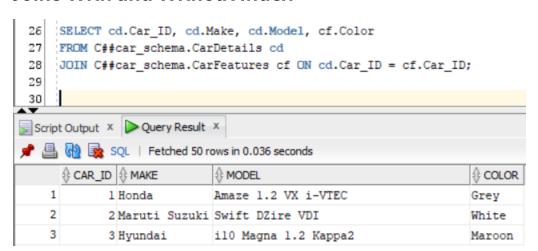
 1
         5 Toyota
                         Innova 2.4 VX 7 STR [2016-2020]
                                                                               1950000
 2
         7 Mercedes-Benz CLA 200 Petrol Sport
                                                                               1898999
 3
         8 BMW
                        X1 xDrive20d M Sport
                                                                               2650000
```

## **Optimized Query with or without CTE**



```
10 WITH AvgPricePerFuel AS (
 11
        SELECT Fuel_Type, ROUND (AVG(Price), 2) AS Average_Price
 12
         FROM C##car_schema.CarDetails
 13
         GROUP BY Fuel Type
 14
 15 SELECT *
 16 FROM AvgPricePerFuel
 17 ORDER BY Average_Price DESC;
40
Script Output × Query Result × Query Result 1 ×
📌 🖺 🙀 🗽 SQL | All Rows Fetched: 9 in 0.007 seconds
 FUEL_TYPE AVERAGE_PRICE
   1 Hybrid
                     7166666.67
    2 Diesel
                     2101848.38
    3 Electric
                      1497857.14
                    1322041.35
    4 Petrol
    5 Petrol + CNG
                         575000
    6 CNG
                          445380
    7 CNG + CNG
                         249000
    8 LPG
                          210000
    9 Petrol + LPG
                         130000
```

## Joins With and Without Index



```
30 | CREATE INDEX idx_car_id ON C##car_schema.CarFeatures(Car_ID);
 31
 32 SELECT cd.Car_ID, cd.Make, cd.Model, cf.Color
 33 FROM C##car_schema.CarDetails cd
 34 JOIN C##car_schema.CarFeatures cf ON cd.Car_ID = cf.Car_ID;
 35
Script Output X Query Result X
3 🚇 🙀 🗽 SQL | Fetched 50 rows in 0.027 seconds

    CAR_ID 
    MAKE

    MODEL

    COLOR

                             Amaze 1.2 VX i-VTEC
             1 Honda
                                                                   Grey
    2
             2 Maruti Suzuki Swift DZire VDI
                                                                   White
    3
             3 Hyundai
                            il0 Magna 1.2 Kappa2
                                                                   Maroon
                            Glanza G
             4 Toyota
                                                                   Red
    5
                            Innova 2.4 VX 7 STR [2016-2020]
             5 Toyota
                                                                   Grey
```