

Database Demo

- SELECT**
- Update**
- JOINS**
- Constraints**

Database: WonderfulWheels

1. Display all Dealerships: (Phone number not given, set to NULL)

SELECT * FROM dbo.Dealership

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure, including tables like FileTables, External Tables, Graph Tables, and various tables in the 'dbo' schema. The SQL Query Editor in the center contains a query titled 'LAB6 Questions' with five numbered tasks. The first task is 'Display all Dealerships: SELECT * FROM dbo.Dealership'. The Results pane at the bottom shows the output of this query as a table with three rows and three columns: DealershipID, LocationID, and Name. The Phone column is NULL for all rows.

DealershipID	LocationID	Name	Phone
1	1	Kitchener	NULL
2	2	Cambridge	NULL
3	3	London	NULL

2. Display all Vehicles sort by price DESC:

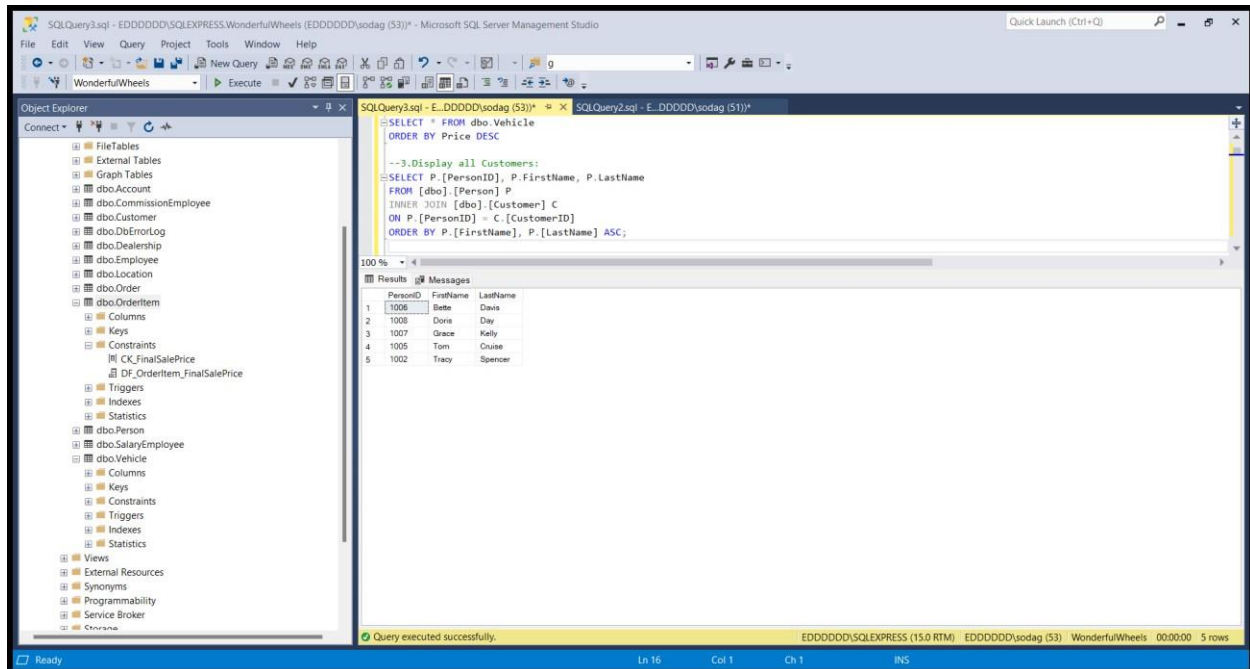
SELECT * FROM dbo.Vehicle ORDER BY Price DESC

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure. The SQL Query Editor in the center contains a query titled 'LAB6 Questions' with three numbered tasks. The second task is 'Display all Vehicles sort by price DESC: SELECT * FROM dbo.Vehicle ORDER BY Price DESC'. The Results pane at the bottom shows the output of this query as a table with eight rows and seven columns: VehicleID, Make, Model, Year, Colour, Km, and Price. The vehicles are sorted by Price in descending order.

VehicleID	Make	Model	Year	Colour	Km	Price
1	Honda	Acord	2000	Gray	10000	40000
2	Honda	Acord	2020	Gray	10000	24000
3	Toyota	Camry	2018	White	35000	22000
4	Toyota	Corolla	2018	Silver	45000	18000
5	Honda	Acord	2015	Red	85000	16000
6	Ford	Focus	2017	Blue	40000	18000
7	Toyota	Corolla	2016	White	60000	15000
8	Toyota	Corolla	2016	Black	65000	14000

3. Display all Customers:

```
SELECT P.[PersonID], P.FirstName, P.LastName  
FROM [dbo].[Person] P  
INNER JOIN [dbo].[Customer] C  
ON P.[PersonID] = C.[CustomerID]  
ORDER BY P.[FirstName], P.[LastName] ASC;
```



4. Display all Employees:

```
SELECT E.[EmployeeID], P.[FirstName], P.[LastName]
FROM [dbo].[Person] P
INNER JOIN [dbo].[Employee] E
ON P.[PersonID] = E.[EmployeeID]
ORDER BY P.[FirstName], P.[LastName] ASC;
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
--4.Display all Employees:
SELECT E.[EmployeeID], P.[FirstName], P.[LastName]
FROM [dbo].[Person] P
INNER JOIN [dbo].[Employee] E
ON P.[PersonID] = E.[EmployeeID]
ORDER BY P.[FirstName], P.[LastName] ASC;
```

The Results pane displays the following data:

EmployeeID	FirstName	LastName
1003	James	Stewart
1000	John	Smith
1001	Mary	Brown
1004	Paul	Newman
1002	Tracy	Spencer

The status bar at the bottom indicates: Query executed successfully. EDDDDDD\SQLSERVER (15.0 RTM) EDDDDDD\usodag (53) WonderfulWheels 00:00:00 5 rows

5. Display all Addresses:

```
SELECT * FROM dbo.Location ORDER BY City
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
FROM [dbo].[Person] P
INNER JOIN [dbo].[Employee] E
ON P.[PersonID] = E.[EmployeeID]
ORDER BY P.[FirstName], P.[LastName] ASC;

--5.Display all Addresses:
SELECT * FROM dbo.Location ORDER BY City
```

The Results pane displays the following data:

LocationID	StreetAddress	City	Province	PostalCode
2	77 Victoria St N	Cambridge	Ontario	N1Z2B8
5	44 King St	Gulph	Ontario	G2A4TJ
8	88 King St	Gulph	Ontario	G2A4TJ
1	221 King St W	Kitchener	Ontario	G8B3C6
10	44 Cedar St	Kitchener	Ontario	N2A7L6
6	55 King St	Kitchener	Ontario	N2A4J7
3	100 White Oak Rd	London	Ontario	L9B1W2
7	77 Lynn Ct	Toronto	Ontario	M7U4B4
9	99 Lynn Ct	Toronto	Ontario	M7U4B4
4	22 Queen St	Waterloo	Ontario	N2A4B8

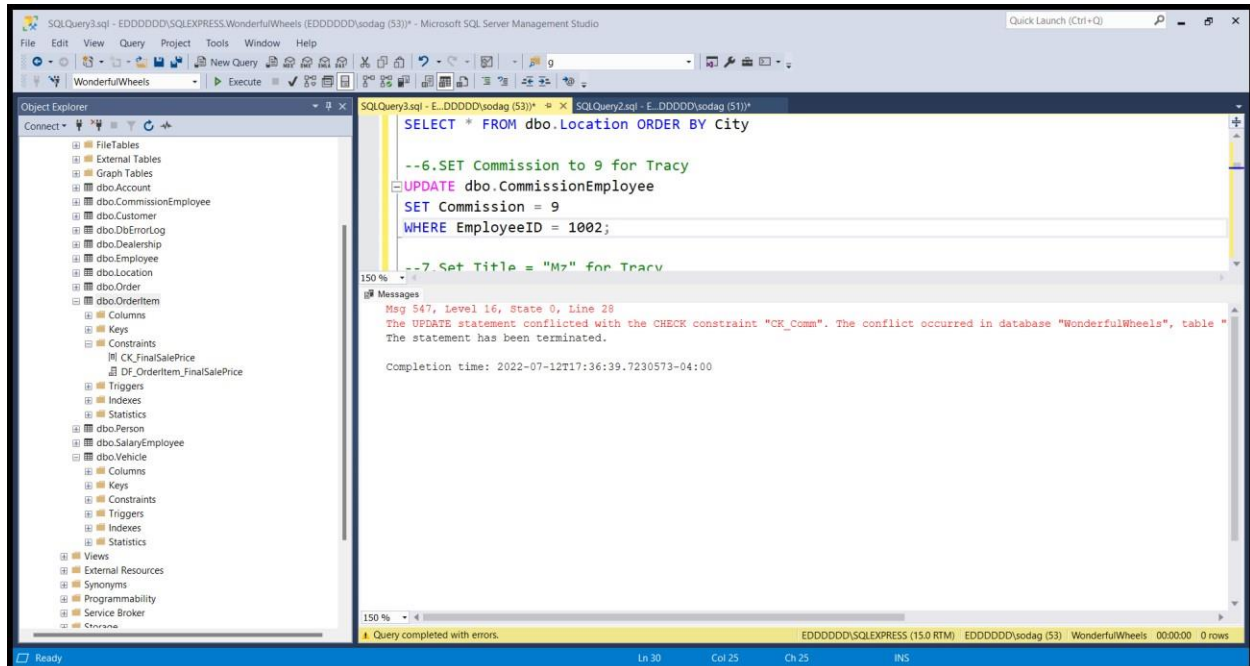
The status bar at the bottom indicates: Query executed successfully. EDDDDDD\SQLSERVER (15.0 RTM) EDDDDDD\usodag (53) WonderfulWheels 00:00:00 10 rows

6.SET Commission to 9 for Tracy : Error occurred.

UPDATE dbo.CommissionEmployee

SET Commission = 9

WHERE EmployeeID = 1002;

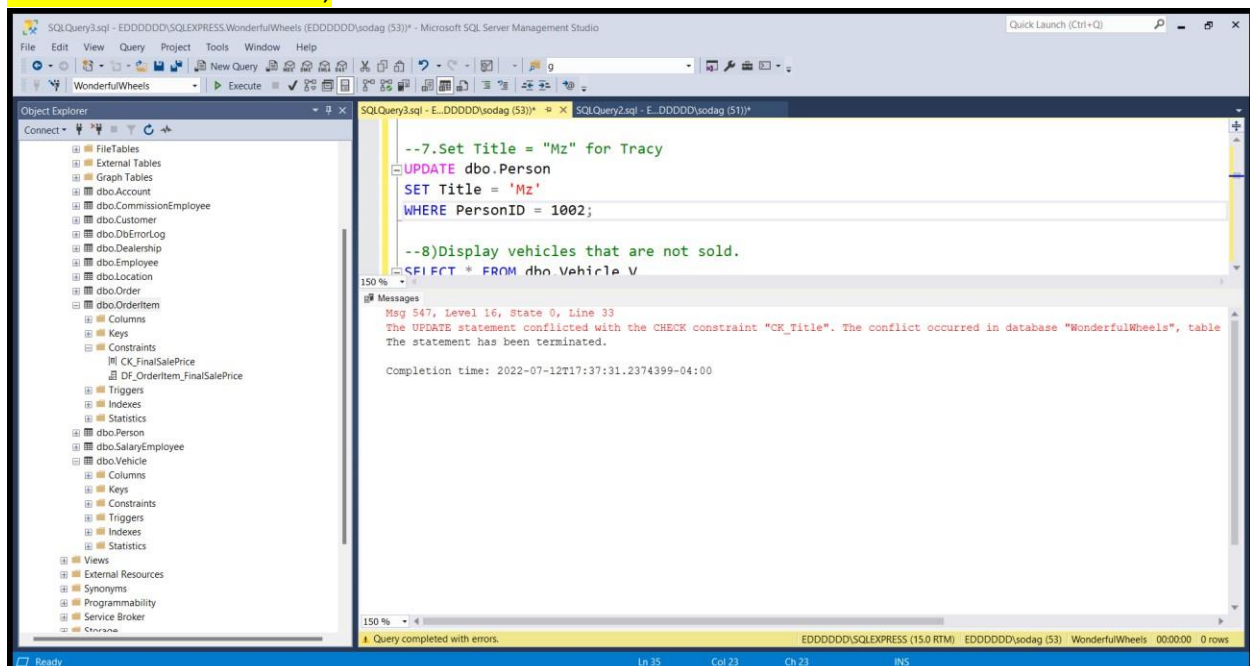


7.Set Title = "Mz" for Tracy: Error occurred

UPDATE dbo.Person

SET Title = 'Mz'

WHERE PersonID = 1002;



8) Display vehicles that are not sold.

```
SELECT * FROM dbo.Vehicle V
```

```
LEFT OUTER JOIN dbo.OrderItem O
```

```
ON V.VehicleID = O.VehicleID
```

```
WHERE O.VehicleID IS NULL
```

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with a tree view of the database schema, including tables like 'dbo.Vehicle' and 'dbo.OrderItem'. The right pane shows a SQL query window with the following code:

```
SET Title = 'Mz'
WHERE PersonID = 1002;

--8)Display vehicles that are not sold.
SELECT * FROM dbo.Vehicle V
LEFT OUTER JOIN dbo.OrderItem O
ON V.VehicleID = O.VehicleID
WHERE O.VehicleID IS NULL
```

Below the query, the 'Results' pane displays a table with 4 rows and 10 columns. The columns are: VehicleID, Make, Model, Year, Colour, Km, Price, OrderID, VehicleID, and FinalSalePrice. The data is as follows:

VehicleID	Make	Model	Year	Colour	Km	Price	OrderID	VehicleID	FinalSalePrice
100002	Toyota	Corolla	2016	White	60000	15000	NULL	NULL	NULL
100003	Toyota	Corolla	2016	Black	65000	14000	NULL	NULL	NULL
100005	Honda	Accord	2020	Gray	10000	24000	NULL	NULL	NULL
100007	Honda	Accord	2020	Gray	10000	40000	NULL	NULL	NULL

The status bar at the bottom indicates 'Query executed successfully.' and 'EDDDDDD/SQLEXPRESS (15.0 RTM) EDDDDDD/sodag (53) Wonderful/Wheels 00:00:00 4 rows'.

9) Display All employee sales info:

The screenshot shows the Microsoft SQL Server Management Studio interface. The query window displays the following SQL code:

```
--Display All employee sales info:
--Create a Tables to simplify process:
--CREATE Table (JOIN Tables: order + orderitem + vehicle):
SELECT * INTO Table1 FROM
(SELECT ORDERID, V.Model, V.Year, ' ', V.Colour, V.KM, ' ', V.FinalSalePrice) AS 'Car Info', O.OrderCustID, O.OrderEmpID
FROM dbo.orderitem OI
INNER JOIN dbo.vehicle V ON OI.VehicleID = V.VehicleID
INNER JOIN dbo.[Order] O ON OI.OrderID = O.OrderID

--CREATE Table (JOIN Tables: Person + Dealership + Person):
SELECT * INTO Table2 FROM
(SELECT O.[Name] AS 'Dealership', P.Firstname + ' ' + P.Lastname AS 'Employee Name', E.EmployeeID, E.ManagerID, O.OrderCustID
FROM dbo.Employee E
INNER JOIN dbo.Person P ON E.EmployeeID = P.PersonID
INNER JOIN dbo.Dealership D ON E.EmployeeID = D.DealershipID
LEFT JOIN dbo.[Order] O ON E.EmployeeID = O.OrderEmpID)

--Tables: COMBINE Tables and Tables to form Tables:
SELECT * INTO Table3 FROM
(SELECT Table1.[Dealership], Table2.[Employee Name], Table2.[ManagerID], Table1.[Car Info], Table1.[OrderCustID] FROM Table1
LEFT JOIN Table2 ON Table1.EmployeeID = Table2.OrderEmpID)

--Table4 (JOIN Tables: Person + Location + Customer):
SELECT * INTO Table4 FROM
(SELECT P.Firstname + ' ' + P.Lastname AS 'Customer Name', P.Telephone, P.Email, P.DateofBirth, DATETIMEFROMPART(P.DateofBirth, GETDATE()) AS 'Age',
L.StreetAddress + ', ' + L.City + ', ' + L.Province + ', ' + L.PostalCode AS 'Address', C.[CustomerID]
FROM (dbo.[Person]) P
FULL JOIN (dbo.[Location]) L ON L.[LocationID] = P.[PerLocID]
INNER JOIN (dbo.[Customer]) C ON P.[PersonID] = C.[CustomerID])

--FINAL RESULT: Tables LEFT JOIN JOIN Tables on CustomerID:
SELECT DISTINCT Table3.[Dealership], Table3.[Employee Name], Table3.[ManagerID], Table4.[Customer Name], Table4.[Telephone],
Table4.[Email], Table4.[DateofBirth], Table4.[Age], Table4.[Address], Table3.[Car Info]
FROM Table3
LEFT JOIN Table4 ON Table3.OrderCustID = Table4.CustomerID
```

The results grid shows the following data:

	Dealership	Employee Name	ManagerID	Customer Name	Telephone	Email	DateofBirth	Age	Address	Car Info
1	Kitchener	James Stewart	1000	Tracy Spencer	519-885-2222	tspencer@email.com	1995-07-22	24	55 King St. Kitchener Ontario	N2M4U7 Honda Accord 2015 Red 85000 15000
2	Kitchener	John Smith	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL
3	Kitchener	May Brown	1000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
4	Kitchener	Paul Newman	1000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
5	Kitchener	Tracy Spencer	1000	Bette Davis	519-452-1111	bdavis@email.com	1962-09-01	70	88 King St. Kitchener Ontario	N2M4U7 Ford Focus 2017 Blue 40000 15000
6	Kitchener	Tracy Spencer	1000	Tom Cruise	519-333-2222	tcruise@email.com	1962-03-22	60	55 King St. Kitchener Ontario	N2M4U7 Toyota Camry 2018 White 35000 21000
7	Kitchener	Tracy Spencer	1000	Tom Cruise	519-333-2222	tcruise@email.com	1962-03-22	60	55 King St. Kitchener Ontario	N2M4U7 Toyota Corolla 2018 Silver 45000 17500

Query executed successfully. EDDDDDD/SQL/EXPRESS (15.0 RTM) EDDDDDD/ysodag (54) Wonderful/Wheels 00:00:00 7 rows