

1. Create an INNER JOIN showing products with list price in descending order (screenshot as INNERjoin.jpg)

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the Object Explorer with the 'BikeStores' database selected. The right pane shows a SQL query window with the following script:

```
USE BikeStores
GO

SELECT
    product_name,
    category_name,
    list_price,
    'QUERY BY JACOB HOPKINS' AS DEVELOPER
FROM
    [BikeStores].[production].[products] AS p
INNER JOIN [BikeStores].[production].[categories] AS c
    ON c.category_id = p.category_id
ORDER BY
    list_price DESC;
```

The bottom pane shows the query results in a table with 4 columns: product\_name, category\_name, list\_price, and DEVELOPER. The results are ordered by list\_price in descending order.

	product_name	category_name	list_price	DEVELOPER
1	Trek Domane SLR 9 Disc - 2018	Road Bikes	11999.99	QUERY BY JACOB HOPKINS
2	Trek Domane SLR 8 Disc - 2018	Road Bikes	7499.99	QUERY BY JACOB HOPKINS
3	Trek Domane SL Frameset - 2018	Road Bikes	6499.99	QUERY BY JACOB HOPKINS
4	Trek Domane SL Frameset Women's - 2018	Road Bikes	6499.99	QUERY BY JACOB HOPKINS
5	Trek Emonda SLR 8 - 2018	Road Bikes	6499.99	QUERY BY JACOB HOPKINS
6	Trek Silque SLR 8 Women's - 2017	Road Bikes	6499.99	QUERY BY JACOB HOPKINS
7	Trek Silque SLR 7 Women's - 2017	Road Bikes	5999.99	QUERY BY JACOB HOPKINS
8	Trek Domane SLR 6 Disc - 2017	Road Bikes	5499.99	QUERY BY JACOB HOPKINS
9	Trek Domane SLR 6 Disc - 2018	Road Bikes	5499.99	QUERY BY JACOB HOPKINS
10	Trek Domane SLR 6 Disc Women's - 2018	Road Bikes	5499.99	QUERY BY JACOB HOPKINS
11	Trek Domane SL 8 Disc - 2018	Road Bikes	5499.99	QUERY BY JACOB HOPKINS
12	Trek Remedy 9.8 - 2017	Mountain Bikes	5299.99	QUERY BY JACOB HOPKINS
13	Trek Fuel EX 9.8 27.5 Plus - 2017	Mountain Bikes	5299.99	QUERY BY JACOB HOPKINS
14	Trek Fuel EX 9.8 29 - 2017	Mountain Bikes	4999.99	QUERY BY JACOB HOPKINS
15	Trek Powerfly 8 FS Plus - 2017	Electric Bikes	4999.99	QUERY BY JACOB HOPKINS
16	Trek Madone 9.2 - 2017	Road Bikes	4999.99	QUERY BY JACOB HOPKINS
17	Trek Remedy 9.8 27.5 - 2018	Mountain Bikes	4999.99	QUERY BY JACOB HOPKINS
18	Trek Domane SLR 6 - 2018	Road Bikes	4999.99	QUERY BY JACOB HOPKINS
19	Trek Domane SL 7 Women's - 2018	Road Bikes	4999.99	QUERY BY JACOB HOPKINS

The status bar at the bottom indicates the query was executed successfully on the 'BikeStores' database, returning 321 rows.

2. As shown below, take a screenshot showing your View. Save picture as UV\_INNERjoin.jpg

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the Object Explorer with the 'BikeStores' database selected. The right pane shows the SQL Query window with the following script:

```
USE BikeStores
GO

CREATE VIEW UV_INNERJOIN
AS
SELECT
    product_name,
    category_name,
    list_price,
    'INNER JOIN BY JACOB HOPKINS' AS DEVELOPER
FROM
    [BikeStores].[production].[products] AS p
INNER JOIN [BikeStores].[production].[categories] AS c
    ON c.category_id = p.category_id;

SELECT [product_name],
       [category_name],
       [list_price],
       [DEVELOPER]
FROM [BikeStores].[dbo].[UV_INNERJOIN];
```

The bottom pane shows the results of the query, displaying 19 rows of data. The status bar at the bottom indicates 'Query executed successfully... | JACOBSDESKTOP (15.0 RTM) | JACOBSDESKTOP\smika (53) | BikeStores | 00:00:00 | 321 rows'.

	product_name	category_name	list_price	DEVELOPER
1	Trek 820 - 2016	Mountain Bikes	379.99	INNER JOIN BY JACOB HOPKINS
2	Ritchey Timberwolf Frameset - 2016	Mountain Bikes	749.99	INNER JOIN BY JACOB HOPKINS
3	Surly Wednesday Frameset - 2016	Mountain Bikes	999.99	INNER JOIN BY JACOB HOPKINS
4	Trek Fuel EX 8 29 - 2016	Mountain Bikes	2899.99	INNER JOIN BY JACOB HOPKINS
5	Heller Shagawaw Frame - 2016	Mountain Bikes	1320.99	INNER JOIN BY JACOB HOPKINS
6	Surly Ice Cream Truck Frameset - 2016	Mountain Bikes	469.99	INNER JOIN BY JACOB HOPKINS
7	Trek Slash 8 27.5 - 2016	Mountain Bikes	3999.99	INNER JOIN BY JACOB HOPKINS
8	Trek Remedy 29 Carbon Frameset - 2016	Mountain Bikes	1799.99	INNER JOIN BY JACOB HOPKINS
9	Trek Conduit+ - 2016	Electric Bikes	2999.99	INNER JOIN BY JACOB HOPKINS
10	Surly Straggler - 2016	Cyclocross Bicycles	1549.00	INNER JOIN BY JACOB HOPKINS
11	Surly Straggler 650b - 2016	Cyclocross Bicycles	1680.99	INNER JOIN BY JACOB HOPKINS
12	Electra Townie Original 21D - 2016	Cruisers Bicycles	549.99	INNER JOIN BY JACOB HOPKINS
13	Electra Cruiser 1 (24-Inch) - 2016	Cruisers Bicycles	269.99	INNER JOIN BY JACOB HOPKINS
14	Electra Girl's Hawaii 1 (16-inch) - 2015/2016	Cruisers Bicycles	269.99	INNER JOIN BY JACOB HOPKINS
15	Electra Moto 1 - 2016	Cruisers Bicycles	529.99	INNER JOIN BY JACOB HOPKINS
16	Electra Townie Original 7D EQ - 2016	Cruisers Bicycles	599.99	INNER JOIN BY JACOB HOPKINS
17	Pure Cycles Vine 8-Speed - 2016	Cruisers Bicycles	429.00	INNER JOIN BY JACOB HOPKINS
18	Pure Cycles Western 3-Speed - Women's - 2015/2016	Cruisers Bicycles	449.00	INNER JOIN BY JACOB HOPKINS
19	Pure Cycles William 3-Speed - 2016	Cruisers Bicycles	449.00	INNER JOIN BY JACOB HOPKINS

3. Create a LEFT JOIN showing products ordered by model\_year and order\_id. Save as UV\_LEFTJoin.

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the 'Object Explorer' with the 'BikeStores' database selected. The right pane shows a SQL query window with the following code:

```
/****** Script for SelectTopNRows command from SSMS *****/
USE BikeStores
GO

SELECT
    product_name,
    order_id,
    model_year,
    'JACOB HOPKINS LEFT JOIN' as DEVELOPER
FROM
    production.products p
LEFT JOIN sales.order_items o ON o.product_id = p.product_id
ORDER BY
    order_id;
```

The bottom pane shows the 'Results' tab with the following data:

	product_name	order_id	model_year	DEVELOPER
1	Electra Savannah 1 (20-inch) - Girl's - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
2	Electra Townie Go! 8 Ladies' - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
3	Trek Checkpoint ALR 5 Women's - 2019	NULL	2019	JACOB HOPKINS LEFT JOIN
4	Trek Checkpoint ALR Frameset - 2019	NULL	2019	JACOB HOPKINS LEFT JOIN
5	Trek Precaliber 12 Girl's - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
6	Surly Krampus Frameset - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
7	Trek Checkpoint SL 5 Women's - 2019	NULL	2019	JACOB HOPKINS LEFT JOIN
8	Trek 820 - 2016	NULL	2016	JACOB HOPKINS LEFT JOIN
9	Trek Checkpoint ALR 4 Women's - 2019	NULL	2019	JACOB HOPKINS LEFT JOIN
10	Trek Kids' Dual Sport - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
11	Trek Checkpoint ALR 5 - 2019	NULL	2019	JACOB HOPKINS LEFT JOIN
12	Electra Sweet Ride 1 (20-inch) - Girl's - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
13	Trek Domane SLR 6 Disc Women's - 2018	NULL	2018	JACOB HOPKINS LEFT JOIN
14	Trek Checkpoint SL 6 - 2019	NULL	2019	JACOB HOPKINS LEFT JOIN
15	Electra Townie Original 7D EQ - Women's - 2016	1	2016	JACOB HOPKINS LEFT JOIN
16	Trek Remedy 29 Carbon Frameset - 2016	1	2016	JACOB HOPKINS LEFT JOIN
17	Surly Straggler - 2016	1	2016	JACOB HOPKINS LEFT JOIN
18	Electra Townie Original 7D EQ - 2016	1	2016	JACOB HOPKINS LEFT JOIN
19	Trek Fuel EX 8 29 - 2016	1	2016	JACOB HOPKINS LEFT JOIN

The status bar at the bottom indicates 'Query executed success...' and '4,736 rows'.

4. As shown below, take a screenshot showing your Views. Save picture as LeftJoinByYourName.jpg

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the 'Object Explorer' with the 'BikeStores' database selected. The right pane shows the 'SQLQuery2.sql' script editor with the following SQL code:

```
/****** Script for SelectTopNRows command from SSMS *****/
USE BikeStores
GO

CREATE VIEW UV_LEFTJOIN
AS
SELECT
    product_name,
    order_id,
    model_year,
    'JACOB HOPKINS VIEW LEFT JOIN' as DEVELOPER
FROM
    production.products p
LEFT JOIN sales.order_items o ON o.product_id = p.product_id;

SELECT * FROM dbo.UV_LEFTJOIN
```

Below the script editor, the 'Results' tab shows the output of the query. The results are displayed in a table with the following columns: product\_name, order\_id, model\_year, and DEVELOPER. The table contains 19 rows of data, including product names like 'Electra Townie Original 7D EQ - Women's - 2016' and 'Trek Remedy 29 Carbon Frameset - 2016'.

	product_name	order_id	model_year	DEVELOPER
1	Electra Townie Original 7D EQ - Women's - 2016	1	2016	JACOB HOPKINS VIEW LEFT JOIN
2	Trek Remedy 29 Carbon Frameset - 2016	1	2016	JACOB HOPKINS VIEW LEFT JOIN
3	Surly Straggler - 2016	1	2016	JACOB HOPKINS VIEW LEFT JOIN
4	Electra Townie Original 7D EQ - 2016	1	2016	JACOB HOPKINS VIEW LEFT JOIN
5	Trek Fuel EX 8 29 - 2016	1	2016	JACOB HOPKINS VIEW LEFT JOIN
6	Electra Townie Original 7D EQ - Women's - 2016	2	2016	JACOB HOPKINS VIEW LEFT JOIN
7	Electra Townie Original 7D EQ - 2016	2	2016	JACOB HOPKINS VIEW LEFT JOIN
8	Surly Wednesday Frameset - 2016	3	2016	JACOB HOPKINS VIEW LEFT JOIN
9	Electra Townie Original 7D EQ - Women's - 2016	3	2016	JACOB HOPKINS VIEW LEFT JOIN
10	Ritchey Timberwolf Frameset - 2016	4	2016	JACOB HOPKINS VIEW LEFT JOIN
11	Surly Straggler - 2016	5	2016	JACOB HOPKINS VIEW LEFT JOIN
12	Pure Cycles Vine 8-Speed - 2016	5	2016	JACOB HOPKINS VIEW LEFT JOIN
13	Electra Townie Original 7D EQ - 2016	5	2016	JACOB HOPKINS VIEW LEFT JOIN
14	Pure Cycles Western 3-Speed - Women's - 2015/2016	6	2016	JACOB HOPKINS VIEW LEFT JOIN
15	Electra Townie Original 21D - 2016	6	2016	JACOB HOPKINS VIEW LEFT JOIN
16	Electra Townie Original 7D EQ - Women's - 2016	6	2016	JACOB HOPKINS VIEW LEFT JOIN
17	Surly Wednesday Frameset - 2016	6	2016	JACOB HOPKINS VIEW LEFT JOIN
18	Trek Conduit+ - 2016	6	2016	JACOB HOPKINS VIEW LEFT JOIN
19	Electra Moto 1 - 2016	7	2016	JACOB HOPKINS VIEW LEFT JOIN

The status bar at the bottom indicates that the query was executed successfully, returning 4,736 rows.

5. Create an RIGHT JOIN showing products with list price in descending order. Save as UV\_RIGHTjoin

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the 'Object Explorer' with the 'BikeStores' database selected. The right pane shows a SQL query window with the following script:

```

/***** Script for SelectTopNRows command from SSMS *****/
USE BikeStores
GO

SELECT
    product_name,
    order_id,
    o.list_price,
    'RIGHT JOIN BY JACOB HOPKINS' AS DEVELOPER
FROM
    sales_order_items o
    RIGHT JOIN production.products p
        ON o.product_id = p.product_id
ORDER BY
    list_price DESC;

```

The bottom pane shows the 'Results' tab with the following data:

	product_name	order_id	list_price	DEVELOPER
1	Trek Domane SLR 9 Disc - 2018	1364	11999.99	RIGHT JOIN BY JACOB HOPKINS
2	Trek Domane SLR 9 Disc - 2018	1541	11999.99	RIGHT JOIN BY JACOB HOPKINS
3	Trek Domane SLR 9 Disc - 2018	1570	11999.99	RIGHT JOIN BY JACOB HOPKINS
4	Trek Domane SLR 8 Disc - 2018	1506	7499.99	RIGHT JOIN BY JACOB HOPKINS
5	Trek Domane SLR 8 Disc - 2018	1439	7499.99	RIGHT JOIN BY JACOB HOPKINS
6	Trek Domane SLR 8 Disc - 2018	1355	7499.99	RIGHT JOIN BY JACOB HOPKINS
7	Trek Domane SL Frameset Women's - 2018	1336	6499.99	RIGHT JOIN BY JACOB HOPKINS
8	Trek Emonda SLR 8 - 2018	1338	6499.99	RIGHT JOIN BY JACOB HOPKINS
9	Trek Silque SLR 8 Women's - 2017	1297	6499.99	RIGHT JOIN BY JACOB HOPKINS
10	Trek Silque SLR 8 Women's - 2017	1224	6499.99	RIGHT JOIN BY JACOB HOPKINS
11	Trek Silque SLR 8 Women's - 2017	1226	6499.99	RIGHT JOIN BY JACOB HOPKINS
12	Trek Silque SLR 8 Women's - 2017	1463	6499.99	RIGHT JOIN BY JACOB HOPKINS
13	Trek Domane SL Frameset - 2018	1546	6499.99	RIGHT JOIN BY JACOB HOPKINS
14	Trek Domane SL Frameset - 2018	1555	6499.99	RIGHT JOIN BY JACOB HOPKINS
15	Trek Domane SL Frameset - 2018	1525	6499.99	RIGHT JOIN BY JACOB HOPKINS
16	Trek Silque SLR 8 Women's - 2017	1533	6499.99	RIGHT JOIN BY JACOB HOPKINS
17	Trek Silque SLR 8 Women's - 2017	837	6499.99	RIGHT JOIN BY JACOB HOPKINS
18	Trek Silque SLR 8 Women's - 2017	904	6499.99	RIGHT JOIN BY JACOB HOPKINS
19	Trek Silque SLR 8 Women's - 2017	930	6499.99	RIGHT JOIN BY JACOB HOPKINS

The status bar at the bottom indicates: 'Query executed successfully... JACOBSDESKTOP (15.0 RTM) | JACOBSDESKTOP\smika (53) | BikeStores | 00:00:00 | 4,736 rows'.