# Advandce Database TSQL and Statement SELECT, Sorting, Filtering, Grouping and Union Operator



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### Practicum - Part 1

1. The difference is that the first query select every part using the wildcard symbol and the second query declared every column to be displayed sequentially

#### Practicum - Part 2

2. Yes, because the query ask for the data in column country on every row.

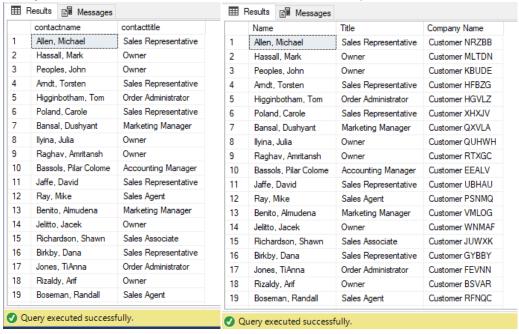


3. No, the difference is how the 4th step query result is unique and there is no duplicate data. From the experiment it can be concluded that the DISTINCT keyword is used to query data without any duplicate data.



#### Practicum - Part 3

4. The column name of the query is different. The AS keyword is used to make an alias to the name of the table and column such that you can represent the table/column with the alias declared with the AS keyword.



## Practicum - Part 4

5. step 3 query has an extra column of category name. CASE keyword seems to work like switch case, for multiple similar condition to output different result.

	categoryid	productname	_	categoryid	productname	categoryname
1	1	Product HHYDP	1	1	Product HHYDP	Beverages
2	1	Product RECZE	2	1	Product RECZE	Beverages
3	2	Product IMEHJ	3	2	Product IMEHJ	Condiments
4	2	Product KSBRM	4	2	Product KSBRM	Condiments
5	2	Product EPEIM	5	2	Product EPEIM	Condiments
6	2	Product VAIIV	6	2	Product VAIIV	Condiments
7	7	Product HMLNI	7	7	Product HMLNI	Produce
8	2	Product WVJFP	8	2	Product WVJFP	Condiments
9	6	Product AOZBW	9	6	Product AOZBW	Meat/Poultry
10	8	Product YHXGE	10	8	Product YHXGE	Seafood
11	4	Product QMVUN	11	4	Product QMVUN	Dairy Products
12	4	Product OSFNS	12	4	Product OSFNS	Dairy Products
13	8	Product POXFU	13	8	Product POXFU	Seafood
14	7	Product PWCJB	14	7	Product PWCJB	Produce
15	2	Product KSZOI	15	2	Product KSZOI	Condiments
16	3	Product PAFRH	16	3	Product PAFRH	Confections
17	6	Product BLCAX	17	6	Product BLCAX	Meat/Poultry
18	8	Product CKEDC	18	8	Product CKEDC	Seafood
19	3	Product XKXDO	19	3	Product XKXDO	Confections

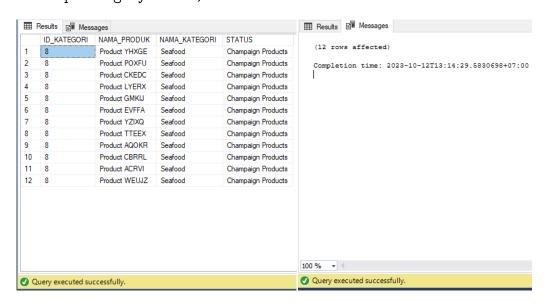
6. An extra column detailing if the product is a champaign product or not

	categoryid	productname	categoryname	iscampaign			
1	1	Product HHYDP	Beverages	Champaign Products			
2	1	Product RECZE	Beverages	Champaign Products			
3	2	Product IMEHJ	Condiments	Non-Champaign Products			
4	2	Product KSBRM	Condiments	Non-Champaign Products			
5	2	Product EPEIM	Condiments	Non-Champaign Products			
6	2	Product VAIIV	Condiments	Non-Champaign Products			
7	7	Product HMLNI	Produce	Champaign Products			
8	2	Product WVJFP	Condiments	Non-Champaign Products			
9	6	Product AOZBW	Meat/Poultry	Non-Champaign Products			
10	8	Product YHXGE	Seafood	Champaign Products			
11	4	Product QMVUN	Dairy Products	Non-Champaign Products			
12	4	Product OSFNS	Dairy Products	Non-Champaign Products			
13	8	Product POXFU	Seafood	Champaign Products			
14	7	Product PWCJB	Produce	Champaign Products			
15	2	Product KSZOI	Condiments	Non-Champaign Products			
16	3	Product PAFRH	Confections	Non-Champaign Products			
17	6	Product BLCAX	Meat/Poultry	Non-Champaign Products			
18	8	Product CKEDC	Seafood	Champaign Products			
19	3	Product XKXDO	Confections	Non-Champaign Products			

Query executed successfully.

#### 7. 12 row affected

```
SELECT
       p.categoryid , p.productname,
       CASE
               WHEN p.categoryid = 1 THEN 'Beverages'
               WHEN p.categoryid = 2 THEN 'Condiments'
               WHEN p.categoryid = 3 THEN 'Confections'
               WHEN p.categoryid = 4 THEN 'Dairy Products'
               WHEN p.categoryid = 5 THEN 'Grains/Cereals'
8
               WHEN p.categoryid = 6 THEN 'Meat/Poultry'
               WHEN p.categoryid = 7 THEN 'Produce'
10
               WHEN p.categoryid = 8 THEN 'Seafood'
11
               ELSE 'Other'
12
       END AS categoryname,
13
       CASE
14
               WHEN p.categoryid IN (1, 7, 8) THEN 'Champaign
15
                → Products'
               ELSE 'Non-Champaign Products'
16
       END AS iscampaign
17
   FROM [Production]. [Products] AS p
   WHERE p.categoryid = 8;
19
```



```
8. -

SELECT

h.firstname AS FIRST_NAME,

h.lastname AS LAST_NAME,

h.city AS CITY,

h.country AS COUNTRY

FROM [HR].[Employees] AS h

WHERE h.city = 'Seattle' AND h.country = 'USA';
```