



**University of Engineering and Technology ,Taxila**

# Department of Computer Engineering



## Lab Report 06

For the Course of DBMS lab

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**Section:** Omega

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**Course Title:** DBMS Lab

## DBMS Lab 6 SQL Wild Cards:

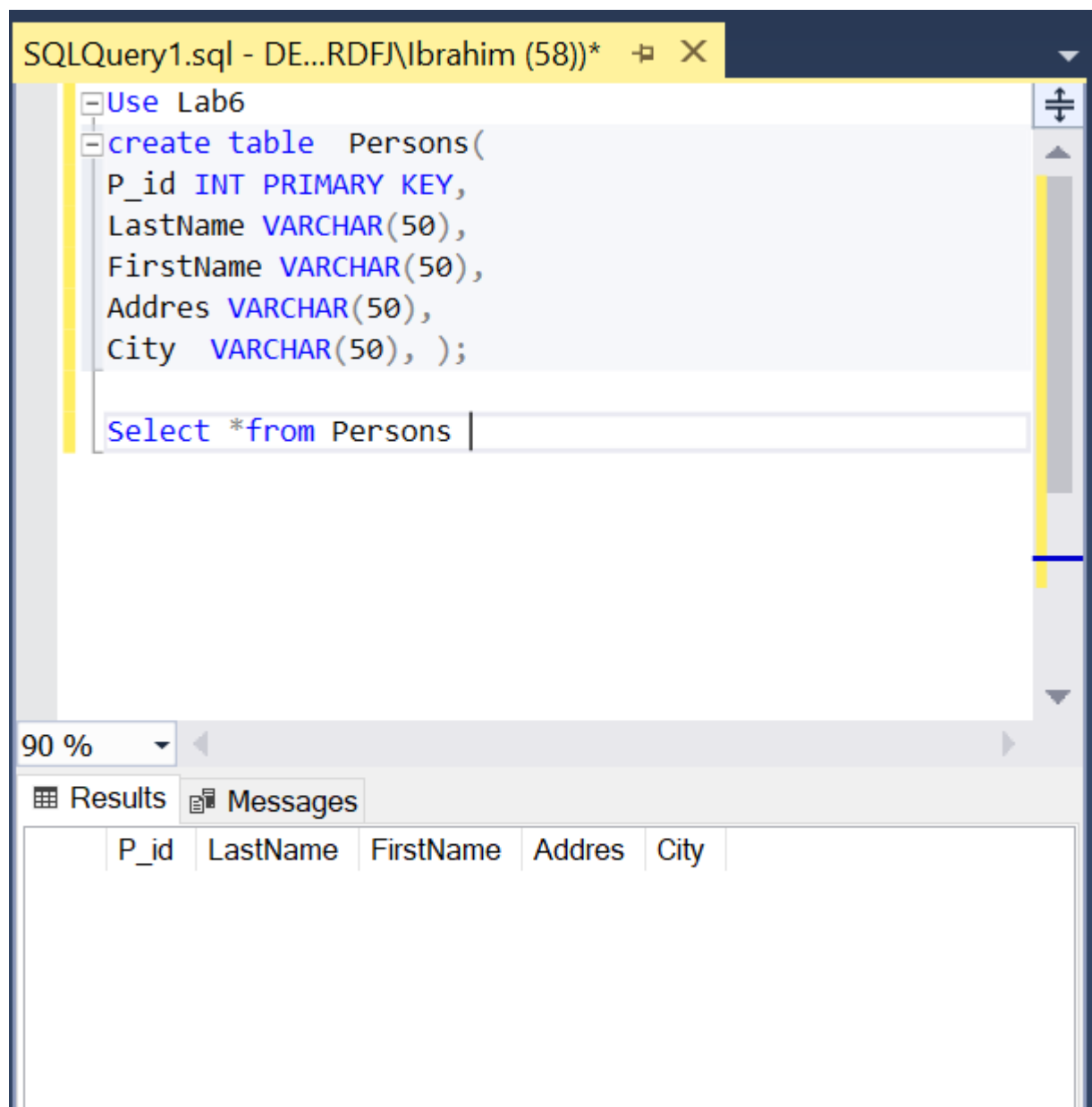
### Examples:

#### SQL Wildcard Examples

We have the following "Persons" table:

---

P_Id	LastName	FirstName	Addres	City
1	Hansen	Christ	Timoteivn 10	Sandness
2	Svendson	Tove	Borgvn 23	Sandness
3	Pettersen	Michael	Storgt 20	Stavanger
4	Nilsen	Johan	Bakken 2	Stavanger
5	Tjessem	Jackob	Nissesetien	Sandness



## Code:

```
Use Lab6
create table Persons(
P_id INT PRIMARY KEY,
LastName VARCHAR(50),
FirstName VARCHAR(50),
Addres VARCHAR(50),
City VARCHAR(50), );
```

```
Select *from Persons
```

SQLQuery2.sql - DE...RDFJ\Ibrahim (54))\*
SQLQuery1.sql - DE...RDFJ\Ibrahim (58))\*

```

INSERT INTO Persons (P_Id, LastName, FirstName, Address, City)
VALUES
(1, 'Pettersen', 'Michael', 'Storgt 20', 'Sandness'),
(2, 'Nilsen', 'Johan', 'Bakken 2', 'Sandness'),
(3, 'Last Name', 'Christ', 'Timoteivn 10', 'Stavanger'),
(4, 'Hansen', 'Tove', 'Borgvn 23', 'Stavanger'),
(5, 'Svendson', 'Jackob', 'Nissesetien', 'Sandness');

Select * from Persons

```

90 %

Results

Messages

	P_id	LastName	FirstName	Address	City
1	1	Pettersen	Michael	Storgt 20	Sandness
2	2	Nilsen	Johan	Bakken 2	Sandness
3	3	Last Name	Christ	Timoteivn 10	Stavanger
4	4	Hansen	Tove	Borgvn 23	Stavanger
5	5	Svendson	Jackob	Nissesetien	Sandness

## Code:

```

INSERT INTO Persons (P_Id, LastName, FirstName, Address, City)
VALUES
(1, 'Pettersen', 'Michael', 'Storgt 20', 'Sandness'),
(2, 'Nilsen', 'Johan', 'Bakken 2', 'Sandness'),
(3, 'Last Name', 'Christ', 'Timoteivn 10', 'Stavanger'),
(4, 'Hansen', 'Tove', 'Borgvn 23', 'Stavanger'),
(5, 'Svendson', 'Jackob', 'Nissesetien', 'Sandness');

Select * from Persons

```

```
SELECT * FROM Persons
WHERE City LIKE 'sa%'
```

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Results Messages

	P_id	LastName	FirstName	Addres	City
1	1	Pettersen	Michael	Storgt 20	Sandness
2	2	Nilsen	Johan	Bakken 2	Sandness
3	5	Svendson	Jackob	Nissesetien	Sandness

## Using the % Wildcard

Now we want to select the persons living in a city that starts with "sa" from the "Persons" table.

We use the following SELECT statement:

```
SELECT * FROM Persons
WHERE City LIKE 'sa%'
```

## Code:

```
SELECT * FROM Persons
WHERE City LIKE 'sa%'
```

```
SELECT * FROM Persons
WHERE city LIKE '%dne%'
```

90 %

Results Messages

	P_id	LastName	FirstName	Addres	City
1	1	Pettersen	Michael	Storgt 20	Sandness
2	2	Nilsen	Johan	Bakken 2	Sandness
3	5	Svendson	Jackob	Nissesetien	Sandness

```
SELECT * FROM Persons
WHERE City LIKE '%dne%'
```

The result-set will look like this:

P_Id	LastName	FirstName	Address	City
1	Hansen	Ola	Timoteivn 10	Sandnes
2	Svendson	Tove	Borgvn 23	Sandnes

## Code:

```
SELECT * FROM Persons
WHERE City LIKE '%dne%'
```

## Example 2:



```
SELECT * FROM Persons
WHERE P_ID BETWEEN 2 AND 4;
```

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	P_id	LastName	FirstName	Addres	City
1	2	Nilsen	Johan	Bakken 2	Sandness
2	3	Last Name	Christ	Timoteivn 10	Stavanger
3	4	Hansen	Tove	Borgvn 23	Stavanger

## Code:

```
SELECT * FROM Persons
WHERE P_ID BETWEEN 2 AND 4;
```

```
--example 2
SELECT * FROM Persons
WHERE LastName
NOT BETWEEN 'Hansen' AND 'Pettersen'
```

90 %

	P_id	LastName	FirstName	Addres	City
1	5	Svendson	Jackob	Nissesetien	Sandness

## Code:

```
--example 2
SELECT * FROM Persons
WHERE LastName
NOT BETWEEN 'Hansen' AND 'Pettersen'
```

```
SQLQuery16.sql - D...RDFJ\Ibrahim (76))* X SQLQuery15.sql - D...RDFJ\Ibrahim (62))*

CREATE TABLE Employees_Norway (
    E_ID INT,
    E_Name VARCHAR(255)
);

INSERT INTO Employees_Norway (E_ID, E_Name) VALUES
    (01, 'Hansen, Ola'),
    (02, 'Svendson, Tove'),
    (03, 'Svendson, Stephen'),
    (04, 'Pettersen, Kari');

CREATE TABLE Employees_USA (
    E_ID INT,
    E_Name VARCHAR(255)
);

INSERT INTO Employees_USA (E_ID, E_Name) VALUES
    (01, 'Turner, Sally'),
    (02, 'Kent, Clark'),
    (03, 'Svendson, Stephen'),
    (04, 'Scott, Stephen');

90 %

Messages

(4 rows affected)

(4 rows affected)

Completion time: 2024-02-23T10:14:33.0947465+05:00
```

## Code:

```
CREATE TABLE Employees_Norway (
    E_ID INT,
    E_Name VARCHAR(255)
);

INSERT INTO Employees_Norway (E_ID, E_Name) VALUES
    (01, 'Hansen, Ola'),
    (02, 'Svendson, Tove'),
    (03, 'Svendson, Stephen'),
    (04, 'Pettersen, Kari');

CREATE TABLE Employees_USA (
    E_ID INT,
    E_Name VARCHAR(255)
);

INSERT INTO Employees_USA (E_ID, E_Name) VALUES
    (01, 'Turner, Sally'),
    (02, 'Kent, Clark'),
    (03, 'Svendson, Stephen'),
    (04, 'Scott, Stephen');
```

90 % ▾

Results Messages

	E_Name
1	Hansen, Ola
2	Kent, Clark
3	Pettersen, Kari
4	Scott, Stephen
5	Svendson, Stephen
6	Svendson, Tove
7	Turner, Sally

	E_Name
1	Hansen, Ola
2	Svendson, Tove
3	Svendson, Stephen
4	Pettersen, Kari
5	Turner, Sally
6	Kent, Clark
7	Svendson, Stephen
8	Scott, Stephen

```
SELECT E_Name FROM Employees_Norway
UNION
SELECT E_Name FROM Employees_USA

SELECT E_Name FROM Employees_Norway
UNION ALL
SELECT E_Name FROM Employees_USA
```

**Q:NO:1=**

**1: Consider the following table “Customers”:**

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico
3	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Lulea	S-958 22	Sweden

**Create the above table and do the following.**

- Write an SQL statement that selects all Customers with a Country starting with the letter “S”.
- Write an SQL statement that selects all Customers with a Contact Name ending with the letter “s”.
- Write an SQL statement that selects all Customers with a City containing the pattern “ndo”.
- Write an SQL statement that selects all Customers with a City not containing the pattern “ndo”.
- Write an SQL statement that selects the two first Customers from table who belong to “Germany” or “Sweden”.
- Write an SQL statement that selects all Customers with a City of "Paris" or "London" without using ‘OR’ operator.

```
--Qn01
CREATE TABLE Customers (
    CustomerID INT,
    CustomerName VARCHAR(255),
    ContactName VARCHAR(255),
    Address VARCHAR(255),
    City VARCHAR(255),
    PostalCode VARCHAR(20),
    Country VARCHAR(255)
);

INSERT INTO Customers (CustomerID, CustomerName, ContactName, Address, City, PostalCode, Country)
VALUES
(1, 'Alfreds Futterkints', 'Maria Anders', 'Obere Str. 57', 'Gerlin', '12209', 'Germany'),
(2, 'Ana Trujillo Emparedados y hualados', 'Ana Trujillo', 'Avda de la Constitución 2222', 'México D.F.', '05021', 'Mexico'),
(3, 'Antonio Moreno Taqueria', 'Antonio Moreno', 'Mataderos 2312', 'México D.', '05023', 'Mexico'),
(4, 'Around the Horn', 'Thomas Hardy', '120 Hanover Sq', 'London', 'WA1 10P', 'UK'),
(5, 'Berglunds snabbkop', 'Christina Berglund', 'Berguvsvägen a', 'Lutea', 'S-958 22', 'Sweden');
```

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkints	Maria Anders	Obere Str. 57	Gerlin	12209	Germany
2	Ana Trujillo Emparedados y hualados	Ana Trujillo	Avda de la Constitución 2222	México D.F.	05021	Mexico
3	Antonia Moreno Taqueria	Antonio Moreno	Mataderos 2312	México D.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq	London	WA1 10P	UK
5	Berglunds snabbkop	Christina Berglund	Berguvsvägen a	Lutea	S-958 22	Sweden

## Code:

```
--Qn01
CREATE TABLE Customers (
    CustomerID INT,
    CustomerName VARCHAR(255),
```

```

ContactName VARCHAR(255),
Address VARCHAR(255),
City VARCHAR(255),
PostalCode VARCHAR(20),
Country VARCHAR(255)
);

INSERT INTO Customers (CustomerID, CustomerName, ContactName, Address, City,
PostalCode, Country)
VALUES
(1, 'Alfreds Futterkints', 'Maria Anders', 'Obera Str. 57', 'Gerlin', '12209',
'Germany'),
(2, 'Ana Trujillo Emparedados y hulados', 'Ana Trujillo', 'Avda de la Constitución
2222', 'México D.F', '05021', 'Mexico'),
(3, 'Antonia Moreno Taqueria', 'Antonio Moreno', 'Mataderos 2312', 'México D.',
'05023', 'Mexico'),
(4, 'Around the Horn', 'Thomas Hardy', '120 Hanover Sq', 'London', 'WA1 10P',
'UK'),
(5, 'Berglunds snabbkop', 'Christina Berglund', 'Berguvsvägen a', 'Lutea', 'S-958
22', 'Sweden');

select * from Customers

```

SQLQuery9.sql - DE...RDF\Ibrahim (69))\* SQLQuery8.sql - DE...RDF\Ibrahim (67))\* SQLQuery7.sql - DE...RDF\Ibrahim (56))\*

```

-- 1. Country starting with the letter "S"
SELECT * FROM Customers WHERE Country LIKE 'S%';

-- 2. Contact Name ending with the letter "s"
SELECT * FROM Customers WHERE ContactName LIKE '%s';

-- 3. containing the pattern "ndo"
SELECT * FROM Customers WHERE City LIKE '%ndo%';

-- 4. not containing the pattern "ndo"
SELECT * FROM Customers WHERE City NOT LIKE '%ndo%';

```

90 %

Results Messages

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	5	Berglunds snabbkop	Christina Berglund	Berguvsvägen a	Lutea	S-958 22	Sweden

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	1	Alfreds Futterkints	Maria Anders	Obera Str. 57	Gerlin	12209	Germany

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	4	Around the Horn	Thomas Hardy	120 Hanover Sq	London	WA1 10P	UK

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	1	Alfreds Futterkints	Maria Anders	Obera Str. 57	Gerlin	12209	Germany
2	2	Ana Trujillo Emparedados y hulados	Ana Trujillo	Avda de la Constitución 2222	México D.F	05021	Mexico
3	3	Antonia Moreno Taqueria	Antonio Mor...	Mataderos 2312	México D.	05023	Mexico
4	5	Berglunds snabbkop	Christina Be...	Berguvsvägen a	Lutea	S-958 22	Sweden

## Code:

```

-- 1. Country starting with the letter "S"
SELECT * FROM Customers WHERE Country LIKE 'S%';

-- 2. Contact Name ending with the letter "S"
SELECT * FROM Customers WHERE ContactName LIKE '%s';

-- 3. containing the pattern "ndo"
SELECT * FROM Customers WHERE City LIKE '%ndo%';

-- 4. not containing the pattern "ndo"
SELECT * FROM Customers WHERE City NOT LIKE '%ndo%';

```

```
--5
SELECT * FROM Customers WHERE Country IN ('Germany', 'Sweden') AND CustomerID BETWEEN 1 and 2;

-- 6.
SELECT * FROM Customers WHERE City = 'Paris' UNION ALL SELECT * FROM Customers WHERE City = 'London';
```

90 %

Results Messages

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	1	Alfreds Futterkints	Maria Anders	Obera Str. 57	Gerlin	12209	Germany

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	4	Around the Horn	Thomas Hardy	120 Hanover Sq	London	WA1 10P	UK

## Code:

```
--5
SELECT * FROM Customers WHERE Country IN ('Germany', 'Sweden') AND CustomerID BETWEEN
1 and 2;

-- 6.
SELECT * FROM Customers WHERE City = 'Paris' UNION ALL SELECT * FROM Customers WHERE
City = 'London';
```

Q:NO:2

## 2. Consider the following table “Products”

ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	Chais	1	1	10 boxes x 20 bags	18
2	Chang	1	1	24 - 12 oz bottles	19
3	Aniseed Syrup	1	2	12 - 550 ml bottles	10
4	Chef Anton's Cajun Seasoning	1	2	48 - 6 oz jars	22
5	Chef Anton's Gumbo Mix	1	2	36 boxes	21.35

Create the above table and do the following.

- Write an SQL statement that selects all products with a price from 10 to 20.
- Write an SQL statement that selects all products with a price from 20 to 30.
- Write an SQL statement that selects all products with a price from 10 to 22 but products with a **CategoryID** of 1,2, or 3 should not be displayed.
- Write an SQL statement that selects all products with a **ProductName** beginning with any of the letter not between 'C' and 'M'.

```
CREATE TABLE Productsss(  
    ProductID INT,  
    ProductName VARCHAR(255),  
    SupplierID INT,  
    CategoryID INT,  
    Unit VARCHAR(255),  
    Price INT  
);  
  
INSERT INTO Productsss(ProductID, ProductName, SupplierID, CategoryID, Unit, Price)  
VALUES  
    (1, 'Chais', 1, 1, '10 boxes x 20 bags', 18),  
    (2, 'Chang', 1, 1, '24-12 oz bottles', 19),  
    (3, 'Aniseed Syrup', 2, 1, '12550 ml bottles', 10),  
    (4, 'Chef Anton's Cajun Seasoning', 2, 2, '48- 6 oz jars', 22),  
    (5, 'Chef Anton's Gumbo Mix', 1, 2, '36 boxes', 21.35);  
  
select * from Productsss
```

90 %

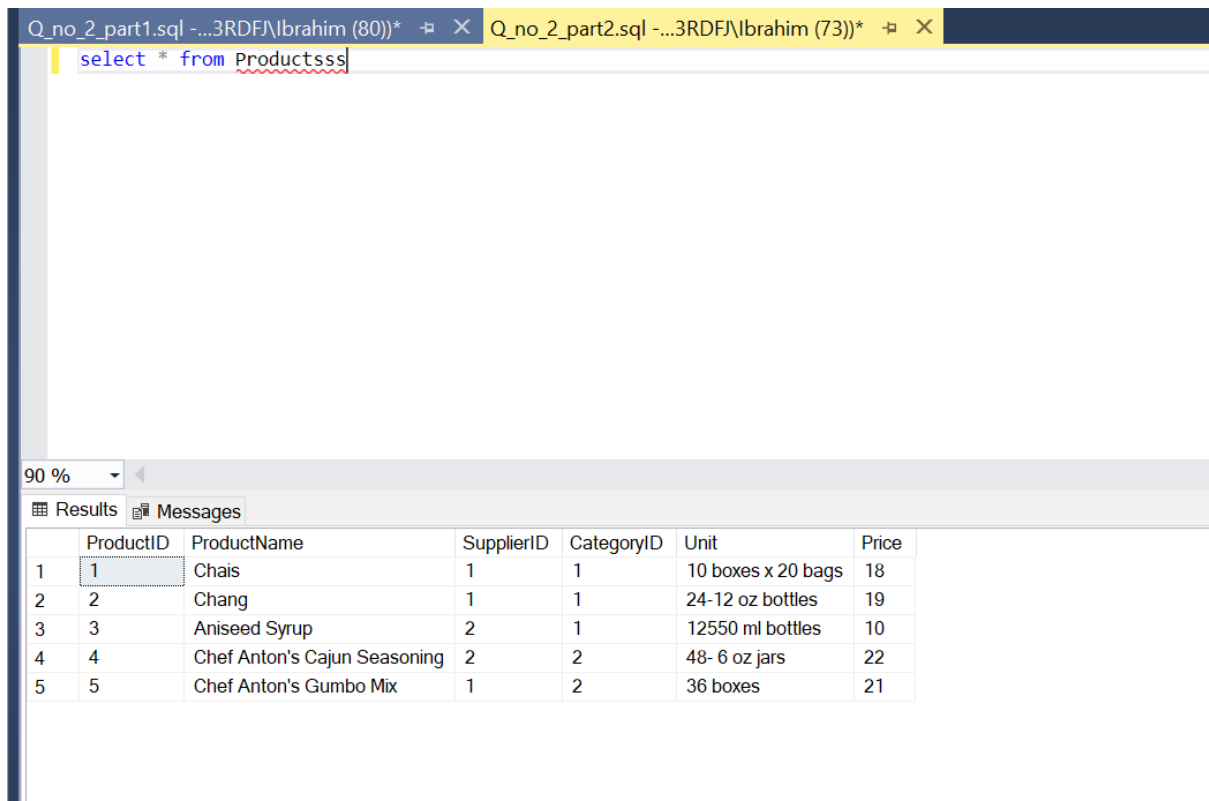
Results Messages

	ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	1	Chais	1	1	10 boxes x 20 bags	18
2	2	Chang	1	1	24-12 oz bottles	19
3	3	Aniseed Syrup	2	1	12550 ml bottles	10
4	4	Chef Anton's Cajun Seasoning	2	2	48- 6 oz jars	22
5	5	Chef Anton's Gumbo Mix	1	2	36 boxes	21



## Code:

```
CREATE TABLE Productsss(  
    ProductID INT,  
    ProductName VARCHAR(255),  
    SupplierID INT,  
    CategoryID INT,  
    Unit VARCHAR(255),  
    Price INT  
);  
  
INSERT INTO Productsss(ProductID, ProductName, SupplierID, CategoryID, Unit, Price)  
VALUES  
    (1, 'Chais', 1, 1, '10 boxes x 20 bags', 18),  
    (2, 'Chang', 1, 1, '24-12 oz bottles', 19),  
    (3, 'Aniseed Syrup', 2, 1, '12550 ml bottles', 10),  
    (4, 'Chef Anton's Cajun Seasoning', 2, 2, '48- 6 oz jars', 22),  
    (5, 'Chef Anton's Gumbo Mix', 1, 2, '36 boxes', 21.35);  
  
select * from Productsss
```



The screenshot shows a SQL query editor with two tabs: 'Q\_no\_2\_part1.sql' and 'Q\_no\_2\_part2.sql'. The active tab 'Q\_no\_2\_part2.sql' contains the query: `select * from Productsss`. Below the editor, the 'Results' pane displays the output of the query as a table with 7 columns: ProductID, ProductName, SupplierID, CategoryID, Unit, and Price. The table contains 5 rows of data, corresponding to the rows inserted in the previous code block. The 'Price' column shows values 18, 19, 10, 22, and 21.35 for the respective products.

	ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	1	Chais	1	1	10 boxes x 20 bags	18
2	2	Chang	1	1	24-12 oz bottles	19
3	3	Aniseed Syrup	2	1	12550 ml bottles	10
4	4	Chef Anton's Cajun Seasoning	2	2	48- 6 oz jars	22
5	5	Chef Anton's Gumbo Mix	1	2	36 boxes	21

```
-- 1.price from 10 to 20
SELECT * FROM Productss WHERE Price BETWEEN 10 AND 20;

-- 2.price from 20 to 30
SELECT * FROM Productss WHERE Price BETWEEN 20 AND 30;

-- 3.
SELECT * FROM Productss WHERE Price BETWEEN 10 AND 22 AND CategoryID NOT IN (1, 2, 3);

-- 4.
SELECT * FROM Productss WHERE NOT ProductName BETWEEN 'C%' AND 'M%';
```

90 %

Results Messages

	ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	1	Chais	1	1	10 boxes x 20 bags	18
2	2	Chang	1	1	24-12 oz bottles	19
3	3	Aniseed Syrup	2	1	12550 ml bottles	10

	ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	4	Chef Anton's Cajun Seasoning	2	2	48- 6 oz jars	22
2	5	Chef Anton's Gumbo Mix	1	2	36 boxes	21

	ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	3	Aniseed Syrup	2	1	12550 ml bottles	10

## Code:

```
-- 1.price from 10 to 20
SELECT * FROM Productss WHERE Price BETWEEN 10 AND 20;

-- 2.price from 20 to 30
SELECT * FROM Productss WHERE Price BETWEEN 20 AND 30;

-- 3.
SELECT * FROM Productss WHERE Price BETWEEN 10 AND 22 AND CategoryID NOT IN (1, 2, 3);

-- 4.
SELECT * FROM Productss WHERE NOT ProductName BETWEEN 'C%' AND 'M%';
```