The task:
Create a database on MySQL, create several tables, create, modify, delete the records.
Create simple and complex queries.
Create database: **shops**

Tables:
■ Rozetka (id_r, name_r, id_com, price_r)
■ Allo (id_a, name_a, id_com, price_a)
■ Company (id_c, name_c)

Rozetka:
■ Kettle, Bosch, 1500
■ TV, Samsung, 5000
■ Smartphone, Samsung, 15,000
■ Smartphone, Apple, 20,000
■ Blender, Bosch, 500

Allo:
■ TV, Samsung, 10000
■ TV, Apple, 20,000
■ Kettle, Samsung, 250
■ Blender, Samsung, 600
■ Smartphone, Apple, 15,000

Company:
■ Bosch
■ Samsung
■ Magic
■ Apple

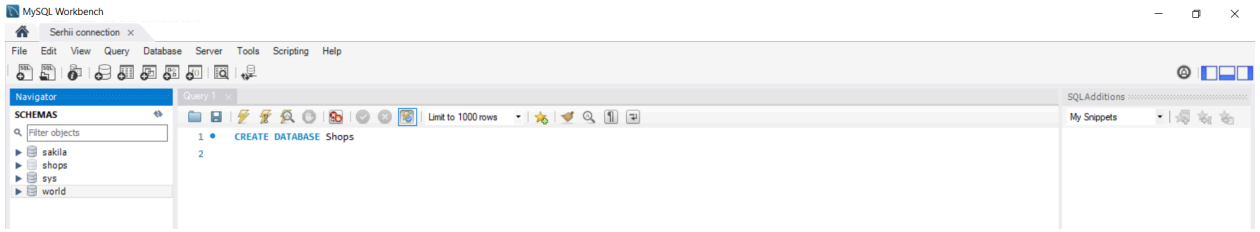
A task:
■ Make a simple selection for each table
■ Sort each table by company
■ Group table by name
■ Select the maximum price value for each table
■ Calculate the total cost of goods in each table
■ Make a selection of all smartphones from all tables (product name, price, company)
■ Make a selection of all Bosch products for all products table
■ Select Samsung products from all tables where price more than 600
■ Select smartphones worth more than 15,000

Language of execution: English.

Task execution

Step 1. Creation the “Shops” database

CREATE DATABASE Shops



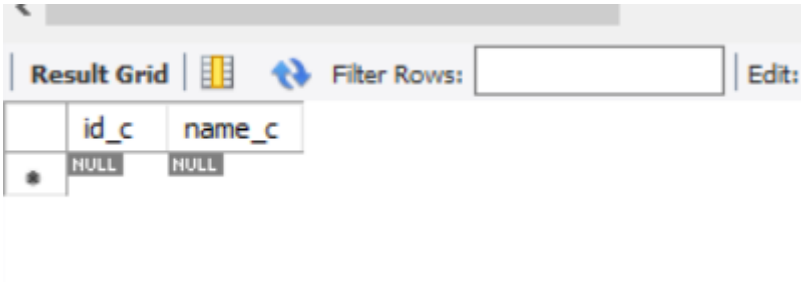
Step2. USE Shops

USE Shops;

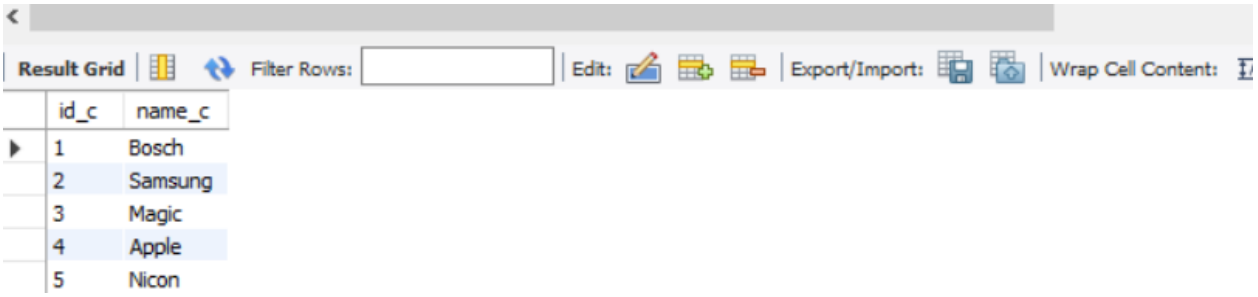
Step 3. Creation tables

Table 1 (Company)

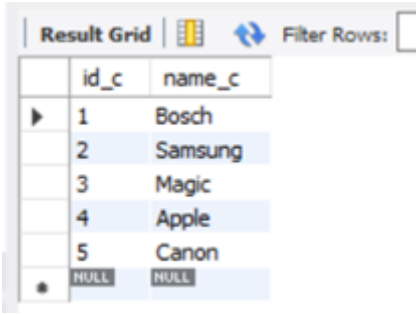
```
CREATE TABLE Company (
id_c int NOT NULL AUTO_INCREMENT,
name_c varchar(20),
 PRIMARY KEY (id_c));
```




```
INSERT INTO Company (name_c) VALUES
('Bosch'),
('Samsung'),
('Magic'),
('Apple'),
('Nicon');
```



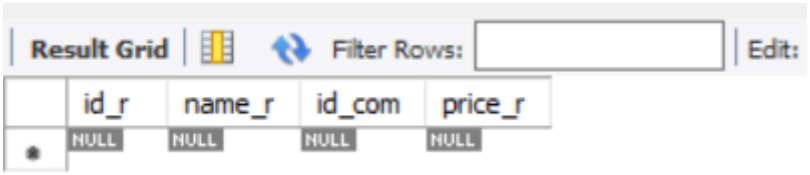
UPDATE Company SET name_c = 'Canon' WHERE id_c = 5



id_c	name_c
1	Bosch
2	Samsung
3	Magic
4	Apple
5	Canon
NULL	NULL

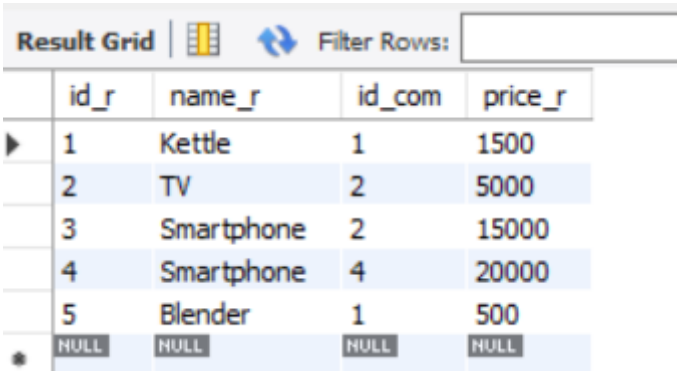
Table 2 (Rozetka)

CREATE TABLE Rozetka (
id_r int NOT NULL AUTO_INCREMENT PRIMARY KEY,
name_r varchar(20),
id_com int,
price_r decimal,
FOREIGN KEY (id_com) REFERENCES Company(id_c));



id_r	name_r	id_com	price_r
NULL	NULL	NULL	NULL

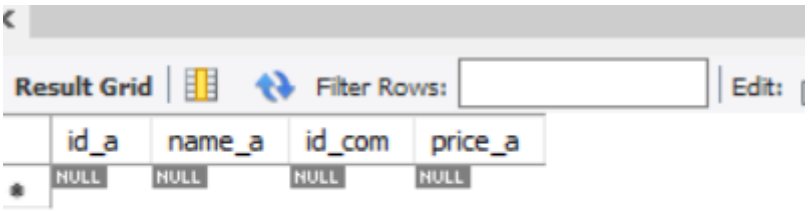
INSERT INTO Rozetka (name_r, id_com, price_r) VALUES
('Kettle', 1, 1500),
('TV', 2, 5000),
('Smartphone', 2, 15000),
('Smartphone', 4, 20000),
('Blender', 1, 500);



id_r	name_r	id_com	price_r
1	Kettle	1	1500
2	TV	2	5000
3	Smartphone	2	15000
4	Smartphone	4	20000
5	Blender	1	500
NULL	NULL	NULL	NULL

Table 3 (Allo)

```
CREATE TABLE Allo (
id_a int NOT NULL AUTO_INCREMENT PRIMARY KEY,
name_a varchar(20),
id_com int,
price_a decimal,
FOREIGN KEY (id_com) REFERENCES Company(id_c));
```




```
INSERT INTO Allo (name_a, id_com, price_a) VALUES
('TV', 2, 10000),
('TV', 4, 20000),
('Kettle', 2, 250),
('Blender', 2, 600),
('Smartphone', 4, 15000);
```

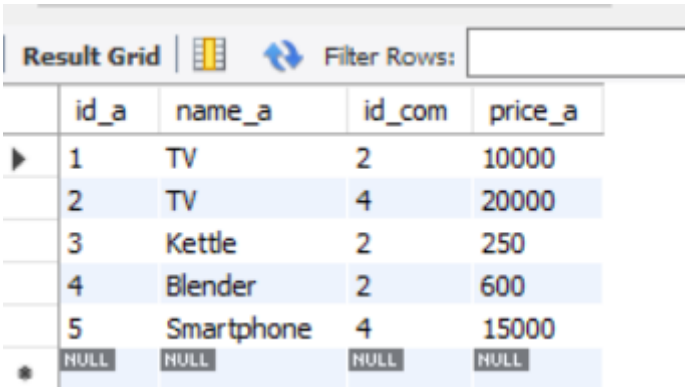


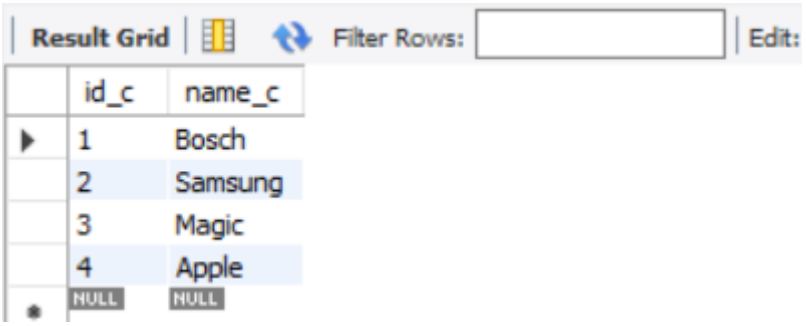
Table 4 (Rozetka2)

```
CREATE TABLE Rozetka (
id_r int NOT NULL AUTO_INCREMENT PRIMARY KEY,
name_r varchar(20),
id_com int,
price_r decimal,
FOREIGN KEY (id_com) REFERENCES Company(id_c));
```

Step 4. Deleting the records

Delete a raw from the Company table

```
DELETE FROM Company WHERE id=5;
```



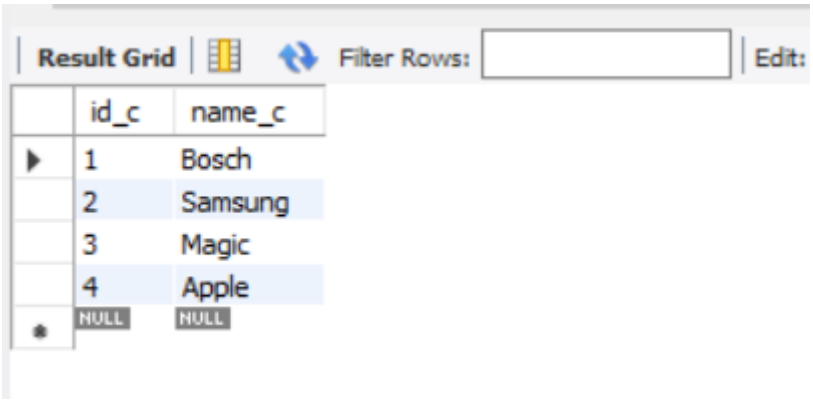
Delete the Rozetka 2 table

DROP TABLE Rozetka2;

Step 5. Making a simple selection for each table

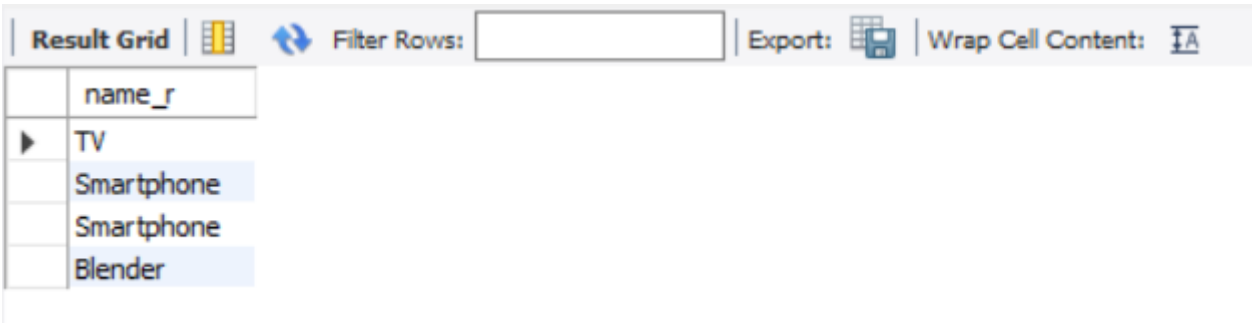
The Company table

SELECT * FROM Company;



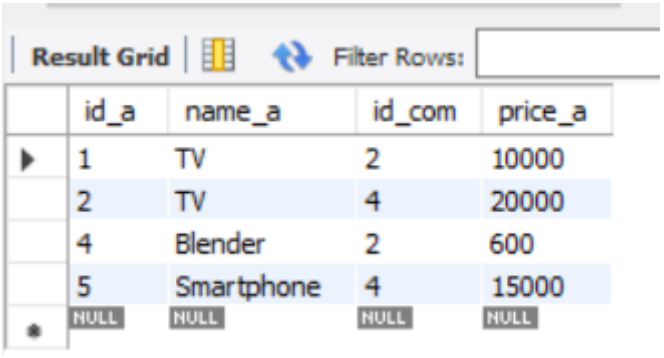
The Rozetka table

SELECT name_r FROM Rozetka WHERE id_r BETWEEN 2 AND 5;



The Allo table

SELECT * FROM Allo WHERE price_a > 500;



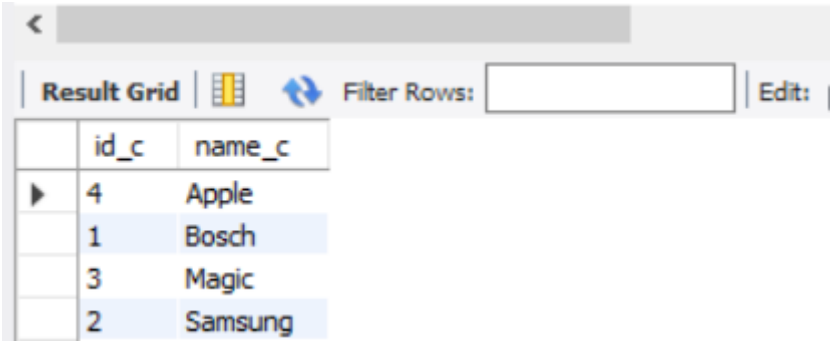
Result Grid | Filter Rows:

id_a	name_a	id_com	price_a
1	TV	2	10000
2	TV	4	20000
4	Blender	2	600
5	Smartphone	4	15000
NULL	NULL	NULL	NULL

Step 6. Sorting each table by company

The Company table

SELECT * FROM Company
ORDER by name_c;

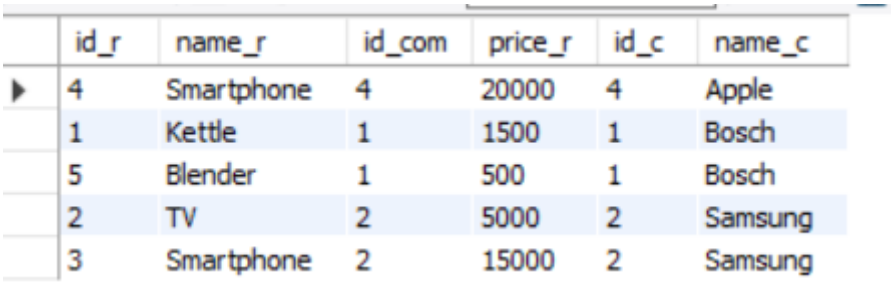


Result Grid | Filter Rows: | Edit:

id_c	name_c
4	Apple
1	Bosch
3	Magic
2	Samsung

The Rozetka table

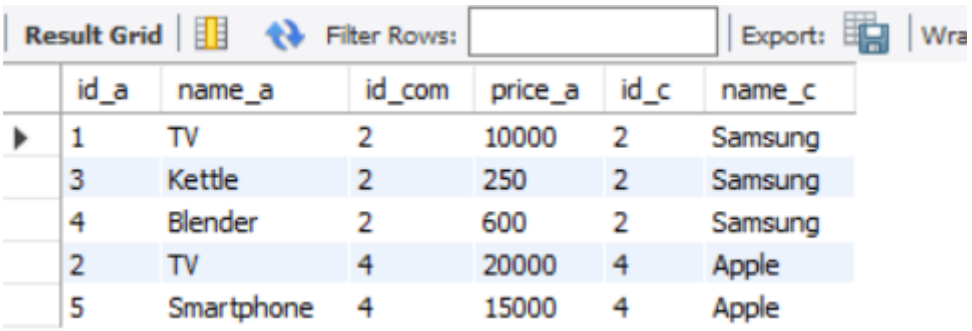
SELECT * FROM Rozetka
INNER JOIN Company ON Rozetka.id_com = Company.id_c
ORDER BY name_c;



id_r	name_r	id_com	price_r	id_c	name_c
4	Smartphone	4	20000	4	Apple
1	Kettle	1	1500	1	Bosch
5	Blender	1	500	1	Bosch
2	TV	2	5000	2	Samsung
3	Smartphone	2	15000	2	Samsung

The Allo table

SELECT * FROM Allo
INNER JOIN Company ON Allo.id_com = Company.id_c
ORDER BY name_c DESC;



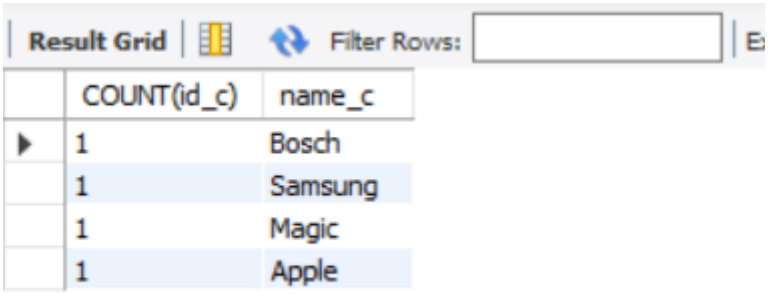
Result Grid | Filter Rows: | Export: | Wra

id_a	name_a	id_com	price_a	id_c	name_c
1	TV	2	10000	2	Samsung
3	Kettle	2	250	2	Samsung
4	Blender	2	600	2	Samsung
2	TV	4	20000	4	Apple
5	Smartphone	4	15000	4	Apple

Step 7. Grouping table by name

The Company table

```
SELECT COUNT(id_c),name_c FROM Company
GROUP BY name_c;
```

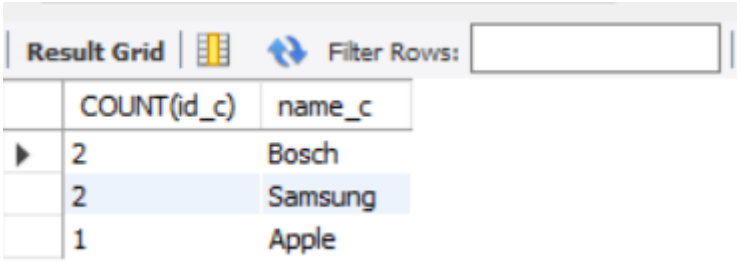


Result Grid | Filter Rows:

COUNT(id_c)	name_c
1	Bosch
1	Samsung
1	Magic
1	Apple

The Rozetka table

```
SELECT COUNT(id_c), name_c FROM Company
JOIN Rozetka ON Rozetka.id_com = Company.id_c
GROUP BY name_c;
```

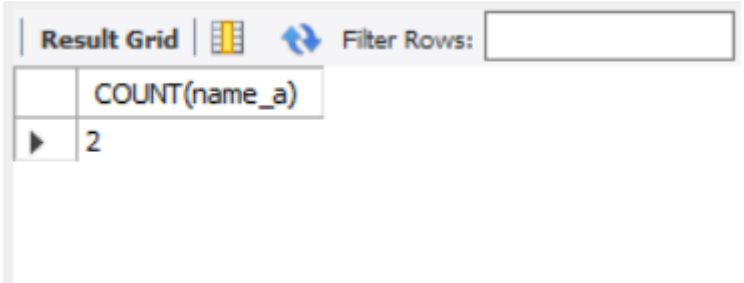


Result Grid | Filter Rows:

COUNT(id_c)	name_c
2	Bosch
2	Samsung
1	Apple

The Allo table

```
SELECT COUNT(name_a) FROM Allo GROUP BY name_a
HAVING name_a LIKE 'T%'
```



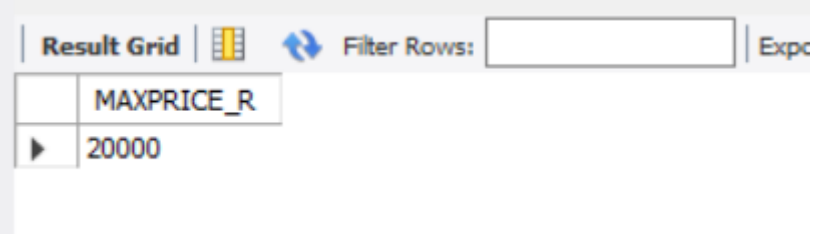
Result Grid | Filter Rows:

COUNT(name_a)
2

Step 8. Selecting the maximum price value for each table

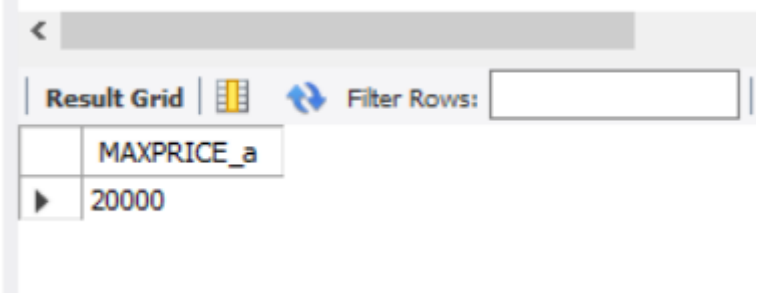
The Rozetka table

SELECT MAX(price_r) AS MAXPRICE_R FROM Rozetka



The Allo table

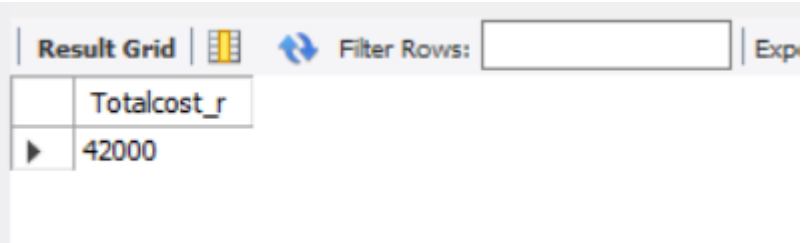
SELECT MAX(price_a) AS MAXPRICE_a FROM Allo



Step 9. Calculating the total cost of goods in each table

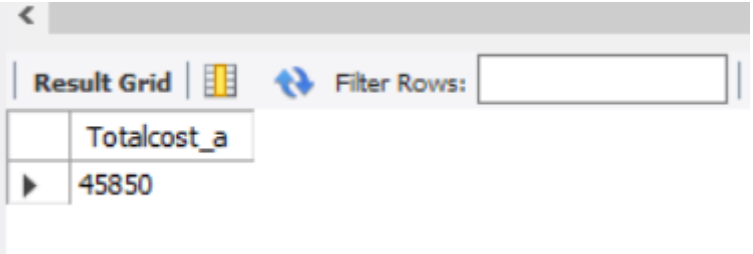
The Rozetka table

SELECT SUM(price_r) AS Totalcost_r FROM Rozetka;



The Allo table

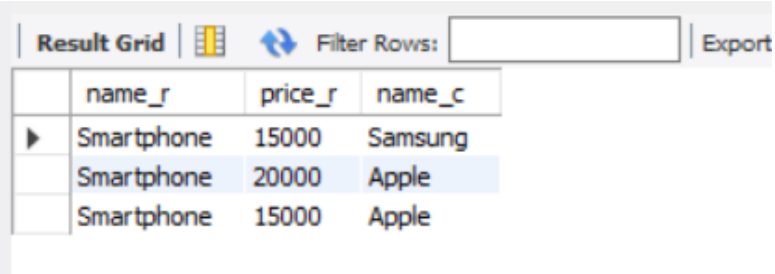
SELECT SUM(price_a) AS Totalcost_a FROM Allo



Step 10. Making a selection of all smartphones from all tables (product name, price, company)

```
SELECT name_r, price_r, name_c FROM Rozetka JOIN Company ON Rozetka.id_com=Company.id_c
WHERE rozetka.name_r LIKE 'Smartphone'
UNION SELECT name_a, price_a, name_c FROM Allo JOIN Company ON Allo.id_com=Company.id_c
```

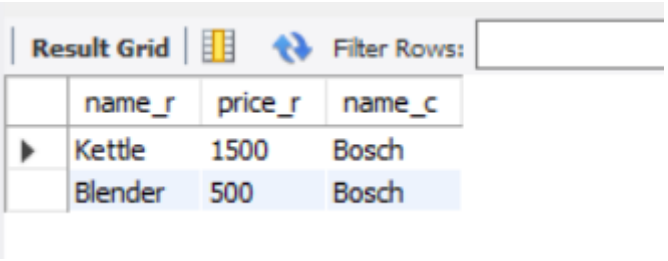
WHERE Allo.name_a LIKE 'Smartphone'



name_r	price_r	name_c
Smartphone	15000	Samsung
Smartphone	20000	Apple
Smartphone	15000	Apple

Step 11. Making a selection of all Bosch products for all products tables

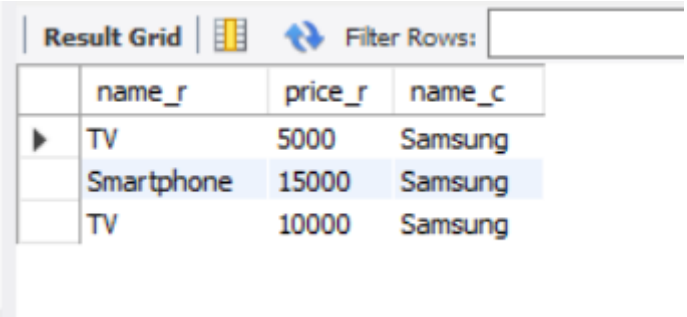
SELECT name_r, price_r, name_c FROM Rozetka JOIN Company ON Rozetka.id_com=Company.id_c
WHERE Company.name_c LIKE 'Bosch'
UNION SELECT name_a, price_a, name_c FROM Allo JOIN Company ON Allo.id_com=Company.id_c
WHERE Company.name_c LIKE 'Bosch'



name_r	price_r	name_c
Kettle	1500	Bosch
Blender	500	Bosch

Step 12. Selection Samsung products from all tables where price more than 600

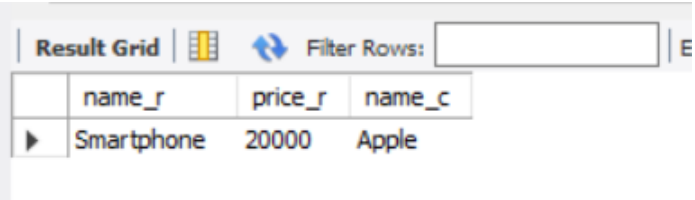
SELECT name_r, price_r, name_c FROM Rozetka JOIN Company ON Rozetka.id_com=Company.id_c
WHERE Company.name_c LIKE 'Samsung' AND Rozetka.price_r > 600
UNION SELECT name_a, price_a, name_c FROM Allo JOIN Company ON Allo.id_com=Company.id_c
WHERE Company.name_c LIKE 'Samsung' AND Allo.price_a > 600



name_r	price_r	name_c
TV	5000	Samsung
Smartphone	15000	Samsung
TV	10000	Samsung

Step 13. Selection smartphones from all tables where price more than 15000

SELECT name_r, price_r, name_c FROM Rozetka JOIN Company ON Rozetka.id_com=Company.id_c
WHERE name_r LIKE 'Smartphone' AND price_r > 15000
UNION SELECT name_a, price_a, name_c FROM Allo JOIN Company ON Allo.id_com=Company.id_c
WHERE name_a LIKE 'Smartphone' AND price_a > 15000



name_r	price_r	name_c
Smartphone	20000	Apple