

Creating and connecting tables + looking for specific info, using aggregate functions etc.

1. Creating a table showing some purchases (5-10 purchases). The table should contain the primary key, the name of the product, the number of purchased units of this product and the purchase price.

SQL File 3* SQL File 4* SQL File 5* SQL File 6* SQL File 7* SQ

```
1 CREATE TABLE SHOPPING (  
2   ID INT (2) KEY,  
3   NAME VARCHAR (255),  
4   QUANTITY INT (5),  
5   PRICE FLOAT (255, 2)  
6 );  
7 DESC SHOPPING
```

Result Grid Filter Rows: Export: Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	
NAME	varchar(255)	YES		NULL	
QUANTITY	int	YES		NULL	
PRICE	float(255,2)	YES		NULL	

SQL File 3* SQL File 4* SQL File 5* SQL File 6*

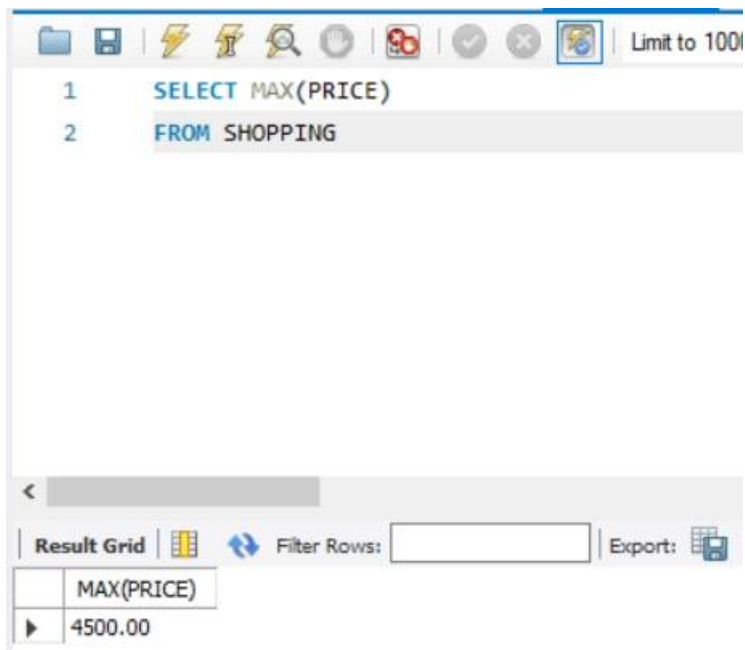
```
1 INSERT INTO SHOPPING  
2 VALUES  
3 (1, "MAGIC WAND", 1, 1000.00),  
4 (2, "STUDY BOOKS", 15, 4500.00),  
5 (3, "OWL", 1, 2745.00),  
6 (4, "PENCILS", 5, 100.00),  
7 (5, "CANDIES", 2, 53.00);  
8 SELECT *  
9 FROM SHOPPING
```

Result Grid Filter Rows: Edit:

	ID	NAME	QUANTITY	PRICE
1	1	MAGIC WAND	1	1000.00
2	2	STUDY BOOKS	15	4500.00
3	3	OWL	1	2745.00
4	4	PENCILS	5	100.00
5	5	CANDIES	2	53.00
*	NULL	NULL	NULL	NULL

2. Write requests that will show:

- the highest price you paid for the product

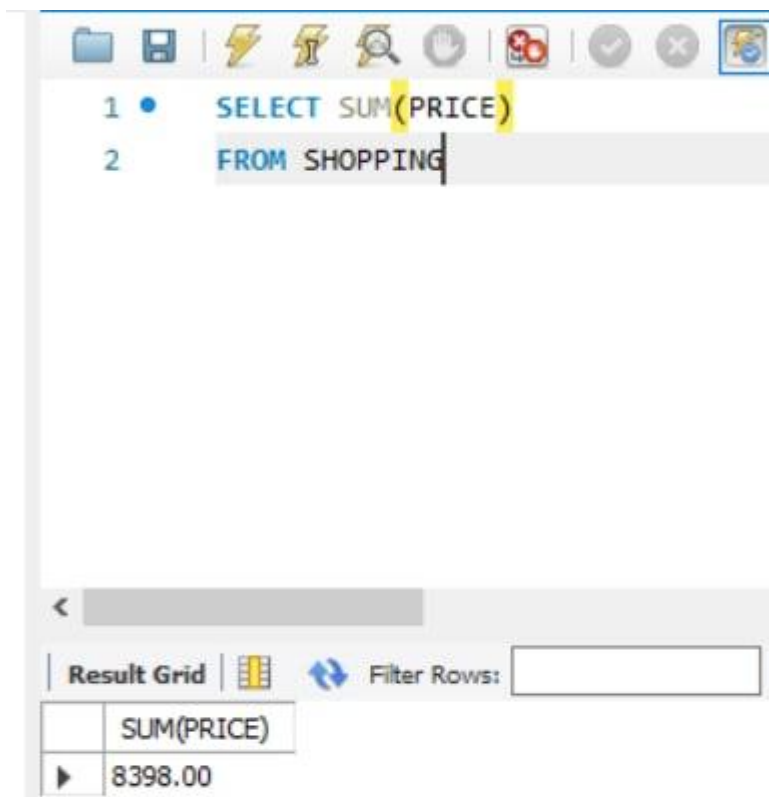


1 `SELECT MAX(PRICE)`
2 `FROM SHOPPING`

Result Grid | Filter Rows: | Export: | Limit to 100

MAX(PRICE)
4500.00

- the total cost of goods



1 `SELECT SUM(PRICE)`
2 `FROM SHOPPING`




Result Grid | Filter Rows: | Export: | Limit to 100

SUM(PRICE)
8398.00

- all information about goods worth more than UAH 100

```
1 • SELECT *
2 FROM SHOPPING
3 WHERE PRICE > 100
```

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Result Grid   Filter Rows: Edit: 

	ID	NAME	QUANTITY	PRICE
▶	1	MAGIC WAND	1	1000.00
	2	STUDY BOOKS	15	4500.00
	3	OWL	1	2745.00
•	NULL	NULL	NULL	NULL

- the number of items that cost less than UAH 100

```
1 • SELECT *
2 FROM SHOPPING
3 WHERE PRICE <= 100
```

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Result Grid   Filter Rows: Edit:    Exp

	ID	NAME	QUANTITY	PRICE
▶	4	PENCILS	5	100.00
	5	CANDIES	2	53.00
•	NULL	NULL	NULL	NULL

- the average cost of goods from your purchases

```

1 • SELECT AVG(PRICE)
2 FROM SHOPPING

```

Result Grid

AVG(PRICE)
1679.600000

3. In the same database, creating another table. It contains: the name of the goods, the name of the manufacturer and the expiration date. Filling in the table with the same products that were in the previous table.

```

1 • CREATE TABLE SHOP (
2     ID INT (2) KEY,
3     NAME VARCHAR (255) NOT NULL,
4     MAN VARCHAR (255),
5     EXP DATE
6 )

```

```

1 • DESC SHOP

```

Result Grid

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	
NAME	varchar(255)	NO		NULL	
MAN	varchar(255)	YES		NULL	
EXP	date	YES		NULL	

Limit to 1000 rows

```

2 VALUES
3 (1, 'MAGIC WAND', 'HOUSE OF SPELLS', '3022.09.09'),
4 (2, 'STUDY BOOKS', 'PUBLISHERS AND CO', NULL),
5 (3, 'OWL', NULL, NULL),
6 (4, 'PENCILS', 'TREES', '2050.10.25'),
7 (5, 'CANDIES', 'Weasleys Wizard Wheezes', '2022.08.12')
8 • SELECT *
9 FROM SHOP

```

Result Grid

ID	NAME	MAN	EXP
1	MAGIC WAND	HOUSE OF SPELLS	3022-09-09
2	STUDY BOOKS	PUBLISHERS AND CO	NULL
3	OWL	NULL	NULL
4	PENCILS	TREES	2050-10-25
5	CANDIES	Weasleys Wizard Wheezes	2022-08-12
•	NULL	NULL	NULL

Limit

```

1 • SELECT *
2 FROM SHOPPING

```

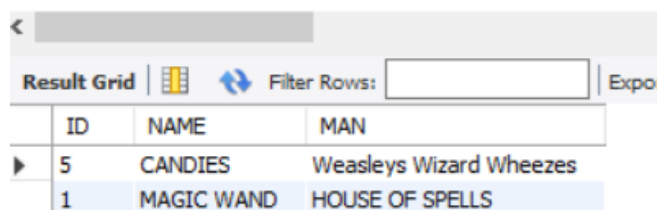
Result Grid

ID	NAME	QUANTITY	PRICE
1	MAGIC WAND	1	1000.00
2	STUDY BOOKS	15	4500.00
3	OWL	1	2745.00
4	PENCILS	5	100.00
▶	CANDIES	2	53.00
•	NULL	NULL	NULL

4. Creating requests that will show:

- Primary key, product name, product manufacturer for any two products;

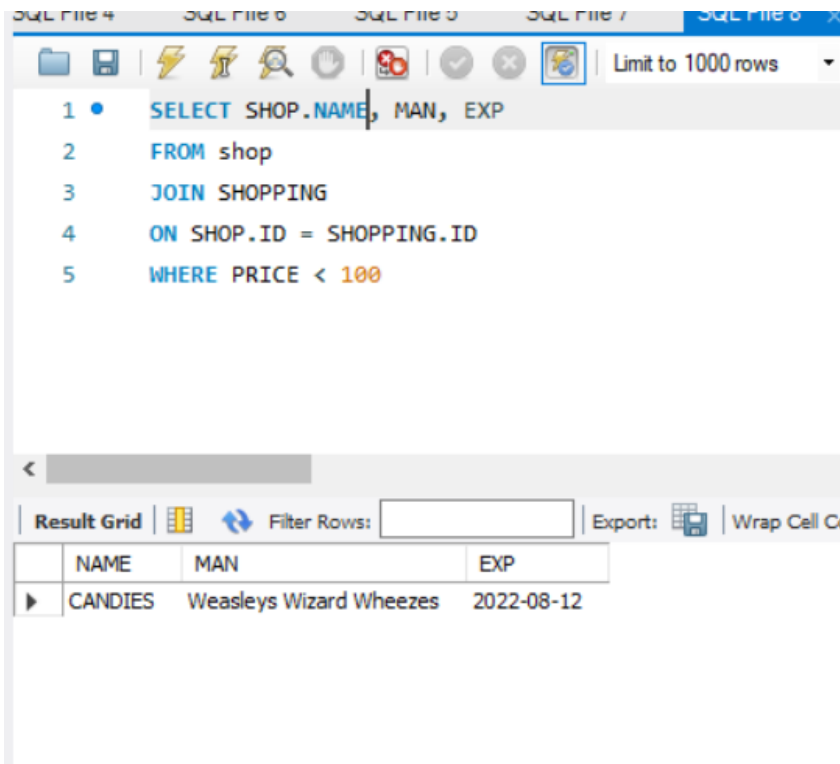
```
1 • SELECT SHOP.ID, SHOP.NAME, MAN
2 FROM SHOPPING
3 JOIN shop
4 ON SHOPPING.NAME = SHOP.NAME
5 ORDER BY NAME LIMIT 2
```



The screenshot shows a database interface with a 'Result Grid' tab. The grid displays two rows of data. The first row has ID 5, NAME 'CANDIES', and MAN 'Weasleys Wizard Wheezes'. The second row has ID 1, NAME 'MAGIC WAND', and MAN 'HOUSE OF SPELLS'.

	ID	NAME	MAN
▶	5	CANDIES	Weasleys Wizard Wheezes
	1	MAGIC WAND	HOUSE OF SPELLS

- Name, manufacturer and expiration date of goods with price less than UAH 100;



The screenshot shows a database query editor with a SQL query and a result grid below it. The query is:
1 • SELECT SHOP.NAME, MAN, EXP
2 FROM shop
3 JOIN SHOPPING
4 ON SHOP.ID = SHOPPING.ID
5 WHERE PRICE < 100
The result grid shows one row of data: NAME 'CANDIES', MAN 'Weasleys Wizard Wheezes', and EXP '2022-08-12'.

```
1 • SELECT SHOP.NAME, MAN, EXP
2 FROM shop
3 JOIN SHOPPING
4 ON SHOP.ID = SHOPPING.ID
5 WHERE PRICE < 100
```

	NAME	MAN	EXP
▶	CANDIES	Weasleys Wizard Wheezes	2022-08-12

- Name, manufacturer and price of the product that has the longest shelf life.

SQL File 4* SQL File 6* SQL File 5* SQL File 7* SQL File 8*

Limit to 1000 rows

```
1 • SELECT SHOP.NAME, MAN, PRICE
2 FROM SHOP
3 JOIN SHOPPING
4 ON SHOP.ID = SHOPPING.ID
5 WHERE EXP = (SELECT MAX(EXP)
6 FROM SHOP)
```

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Result Grid | Filter Rows: | Export: | Wrap C

	NAME	MAN	PRICE
▶	MAGIC WAND	HOUSE OF SPELLS	1000.00