

1. Створи базу даних (із довільною назвою)

- Створи у цій базі даних таблицю з назвою Shopping_List що міститиме поля з назвами: ID, Product_Name, Price, Quantity;
- Визнач, яке поле буде первинним ключем.

2. Внеси в таблицю 10 найменувань продуктів та заповни поля Price і Quantity довільними числами.

The screenshot displays a database management interface with the following components:

- Navigator:** Shows the database structure. Under the 'lesson_21' schema, the 'shopping_list' table is selected. The 'Columns' tab for this table shows: ID (int PK), Product_Name (varchar(3)), Price (varchar(3)), and Quantity (varchar(3)).
- Query Editor:** Contains the following SQL script:

```
1 • use Lesson_21;
2 • create table Shopping_List (
3     ID int,
4     Product_Name varchar (300),
5     Price varchar (300),
6     Quantity varchar (300)
7 );
8
9 • create table Fridge (
10     Item_ID int,
11     Product_ID int,
12     Product_Name varchar (300),
13     Quantity varchar (300),
14     Expiration_Date date
15 );
16
17 • insert into Fridge (Item_ID,
18     Product_ID,
19     Product_Name,
```
- Output:** Shows the execution results of the queries:

#	Time	Action
79	12:52:14	SELECT * FROM fridge LIMIT 0, 1000
80	12:52:29	SELECT * FROM shopping_list LIMIT 0, 1000
81	12:52:29	SELECT * FROM fridge LIMIT 0, 1000

SQL Navigator

SCHEMAS

Filter objects

- lesson_21
 - Tables
 - fridge
 - shopping_list
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 - Triggers
 - Views
 - Stored Procedures
 - Functions
 - sakila
 - sys
 - world

Administration Schemas

Information

Table: shopping_list

Columns:

ID	int PK
Product_Name	varchar(3)
Price	varchar(3)
Quantity	varchar(3)

Query 1 shopping_list x fridge lesson_21.shopping_list

1 • SELECT * FROM shopping_list;

2 • SELECT * FROM fridge;

Limit to 1000 rows

Result Grid

ID	Product_Name	Price	Quantity
1	grape	90	1kg
2	cheese	400	5kg
3	milk	40	1l
4	chicken	180	5kg
5	orange	80	2kg
6	tomato	100	2kg
7	potato	20	12kg
8	butter	400	10kg
NULL	NULL	NULL	NULL

shopping_list 14 x fridge 15

Output

Action Output

#	Time	Action
79	12:52:14	SELECT * FROM fridge LIMIT 0, 1000
80	12:52:29	SELECT * FROM shopping_list LIMIT 0, 1000
81	12:52:29	SELECT * FROM fridge LIMIT 0, 1000

Navigator

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sakila

sys

world

Administration Schemas

Information

Table: shopping_list

Columns:

ID	int PK
Product_Name	varchar(300)
Price	varchar(300)
Quantity	varchar(300)

Query 1 shopping_list fridge lesson_21.shopping_list

Info Columns Indexes Triggers Foreign keys Partitions Grants DDL

Indexes in Table

Visible	Key	Type	Uni...	Columns
<input checked="" type="checkbox"/>	PRIMARY	BTREE	YES	ID

Columns in table

Column	Type	Nullable	Indexes
ID	int	NO	PRIMARY
Product_Name	varchar(300)	YES	
Price	varchar(300)	YES	
Quantity	varchar(300)	YES	

Output

Action Output

#	Time	Action
79	12:52:14	SELECT * FROM fridge LIMIT 0, 1000
80	12:52:29	SELECT * FROM shopping_list LIMIT 0, 1000
81	12:52:29	SELECT * FROM fridge LIMIT 0, 1000

- Створи таблицю продуктів (з назвою Fridge) з полями (Item_ID, Product_ID, Product_Name, Quantity, Expiration_Date) у вже створеній базі даних.
- Додай в таблицю Fridge 10 найменувань продуктів, 5 з яких збігатимуться з 5 продуктами з таблиці Shopping_List.
- Доповни поля таблиці даними на власний розсуд.

SQL Navigator

SCHEMAS

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Administration Schemas

Information

Table: fridge

Columns:

Item_ID	int
Product_ID	int
Product_Name	varchar(300)
Quantity	varchar(300)
Expiration_Date	date

Query 1 x shopping_list fridge lesson_21.shopping_list

Limit to 1000 rows

```

7  );
8
9  • create table Fridge (
10     Item_ID int,
11     Product_ID int,
12     Product_Name varchar (300),
13     Quantity varchar (300),
14     Expiration_Date date
15 );
16
17 • insert into Fridge (Item_ID,
18     Product_ID,
19     Product_Name,
20     Quantity,
21     Expiration_Date)
22     values (10, 1, 'grape' , '100kg' , '2023-12-31');
23
24 • insert into Fridge (Item_ID,
25     Product_ID,

```

Output

Action Output

#	Time	Action
79	12:52:14	SELECT * FROM fridge LIMIT 0, 1000
80	12:52:29	SELECT * FROM shopping_list LIMIT 0, 1000
81	12:52:29	SELECT * FROM fridge LIMIT 0, 1000

Navigation icons

Query 1 shopping_list x fridge lesson_21.shopping_list

SCHEMAS

Filter objects

lesson_21

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Administration Schemas

Information

Table: fridge

Columns:

- Item_ID int
- Product_ID int
- Product_Name varchar(255)
- Quantity varchar(255)
- Expiration_Date date

1 SELECT * FROM shopping_list;

2 SELECT * FROM fridge;

Limit to 1000 rows

Filter Rows:

Export: Wrap Cell Content:

	Item_ID	Product_ID	Product_Name	Quantity	Expiration_Date
▶	10	1	grape	100kg	2023-12-31
	11	2	cheese	0.5kg	2024-02-16
	12	3	milk	1l	2023-10-15
	13	4	chicken	1kg	2024-01-15
	14	5	orange	1kg	2024-01-01
	15	NULL	tomato	10kg	2023-11-21
	16	NULL	olive oil	5l	2023-11-11
	17	NULL	fish	15kg	2024-06-17

shopping_list 14 fridge 15 x

Output

Action Output

#	Time	Action	Message
79	12:52:14	SELECT * FROM fridge LIMIT 0, 1000	8 row(s) ret
80	12:52:29	SELECT * FROM shopping_list LIMIT 0, 1000	8 row(s) ret
81	12:52:29	SELECT * FROM fridge LIMIT 0, 1000	8 row(s) ret

6. Пов'яжи цю таблицю з таблицею списку покупок за допомогою зовнішнього ключа.

The screenshot shows the SQL Developer interface with the 'lesson_21.fridge' table selected. The 'Indexes in Table' tab is active, showing a primary key index on 'Product_ID'. The 'Columns in table' tab shows the table structure with columns: Item_ID, Product_ID, Product_Name, Quantity, and Expiration_Date. The 'Output' window shows the execution of three SQL queries: a SELECT from 'fridge', a SELECT from 'shopping_list', and a SELECT from 'fridge' joined with 'shopping_list' using a LEFT JOIN on Product_ID.

Table: fridge

Columns:

Column	Type	Nullable	Indexes
Item_ID	int	YES	
Product_ID	int	YES	Product_ID
Product_Name	varchar(300)	YES	
Quantity	varchar(300)	YES	
Expiration_Date	date	YES	

Indexes in Table

Visible	Key	Type	Uni...	Columns
<input checked="" type="checkbox"/>	Product_ID	BTREE	NO	Product_ID

Index Details

Key Name:
Index Type:
Allows NULL:
Cardinality:
Comment:
User Comment:

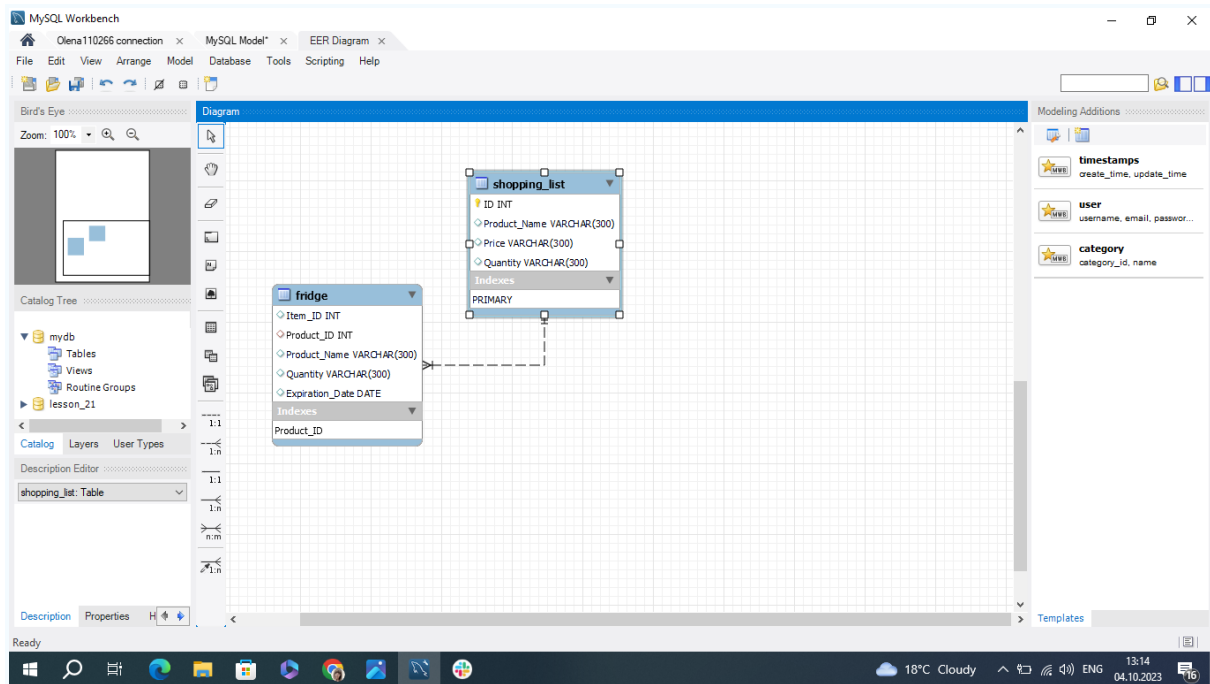
Columns in table

Column	Type	Nullable	Indexes
Item_ID	int	YES	
Product_ID	int	YES	Product_ID
Product_Name	varchar(300)	YES	
Quantity	varchar(300)	YES	
Expiration_Date	date	YES	

Output

#	Time	Action	Message
79	12:52:14	SELECT * FROM fridge LIMIT 0, 1000	8 row(s)
80	12:52:29	SELECT * FROM shopping_list LIMIT 0, 1000	8 row(s)
81	12:52:29	SELECT * FROM fridge LEFT JOIN shopping_list ON (fridge.Product_ID = shopping_list.Product_ID) LIMIT 0, 1000	8 row(s)

7. Намалюй діаграму взаємозв'язків сутностей* створеної бази даних зі вказанням типів полів, первинних ключів, зв'язків між таблицями.



8. Додай в таблицю Fridge 10 продуктів, 5 з яких є в списку покупок Shopping_List (тут важлива не загальна кількість продуктів, а пов'язані таблиці).
9. Зроби запит, що виведе продукти, яких немає в таблиці Shopping_List.

Navigator: SCHEMAS

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sakila

sys

world

Administration Schemas

Information

Table: fridge

Columns:

- Item_ID int
- Product_ID int
- Product_Name varchar(100)
- Quantity varchar(100)
- Expiration_Date date

Query 1 shopping_list fridge SQL File 4*

1 • SELECT * FROM shopping_list;

2 • SELECT * FROM fridge;

Result Grid

	Item_ID	Product_ID	Product_Name	Quantity	Expiration_Date
▶	10	1	grape	100kg	2023-12-31
	11	2	cheese	0.5kg	2024-02-16
	12	3	milk	1l	2023-10-15
	13	4	chicken	1kg	2024-01-15
	14	5	orange	1kg	2024-01-01
	15	NULL	tomato	10kg	2023-11-21
	16	NULL	olive oil	5l	2023-11-11
	17	NULL	fish	15kg	2024-06-17
	18	7	potato	40kg	2023-12-17
	19	8	butter	10kg	2024-02-18
	20	9	juice	5l	2024-07-18
	21	10	water	10l	2024-12-18
	22	11	onion	7kg	2023-12-18

shopping_list 24 fridge 25 x

Navigator: SCHEMAS

Filter objects

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sakila

sys

world

Administration Schemas

Information

Table: fridge

Columns:

- Item_ID int
- Product_ID int
- Product_Name varchar(100)
- Quantity varchar(100)
- Expiration_Date date

Query 1 shopping_list fridge SQL File 4* x

1 • use Lesson_21;

2 • SELECT * FROM shopping_list;

3 • SELECT * FROM fridge;

4 • select * from Fridge where not exists(

5 • select Product_Name from shopping_list where Fridge.Product_Name=shopping_list.Product_Name);

Result Grid

	Item_ID	Product_ID	Product_Name	Quantity	Expiration_Date
▶	16	NULL	olive oil	5l	2023-11-11
	17	NULL	fish	15kg	2024-06-17
	23	NULL	carrot	6kg	2023-11-18
	24	NULL	pineapple	1kg	2023-11-28
	25	NULL	cucumber	4kg	2023-10-28
	26	NULL	banana	20kg	2023-12-29
	27	NULL	cabbage	10kg	2024-02-25

Fridge 17 x

Output

Action Output

#	Time	Action	Message
128	15:25:27	SELECT * from shopping_list, fridge order by 'ID' LIMIT 0, 1000	198 row(s) returned
129	15:27:21	SELECT * from (shopping_list), fridge) order by 'ID' LIMIT 0, 1000	198 row(s) returned