



**MIS 204**

**DATABASE MANAGEMENT**

**PHARMACY DATABASE PROJECT**

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## Business Introduction

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### **Functions of Pharmacy:**

The quality of medicines supplied to patients, advising patients about medicines (including how to take them) and what reactions may occur and answering patients' questions etc.

### **Purpose of creating this database:**

- Quick process ending
- Backup pharmacy's data probability of any threats or problem
- Prevent to illegal purchase and sale
- Keeping input-output records systematically
- Record keeping sales- purchases and stores account

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## Gathering Business Requirements and Data Items

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We used "interview" and "study of existing reports" methods for gathering datas. As first step, we interviewed with a pharmacist. She explained their existing database system. She said that "The biggest deficiency is lack of branch offices informations. Database is not include Firm's branh offices' informations." After, we thought that "Which functions we can add to existing database?" and "How can we develop this?" As last step, we discussed with our group members, and we get decided to create this database.

### **Basically pharmacy requirements:**

Atc codes, atc names, medinices, expiration dates of medicines, barcodes, firms and their informations, branch offices and their informations.

## Entities, Attributes and Keys

### 1 – ATC:

What is ATC?

The Anatomical Therapeutic Chemical (ATC) Classification System is a drug classification system that classifies the active ingredients of drugs according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties. This pharmaceutical coding system divides drugs into different groups according to the organ or system on which they act, their therapeutic intent or nature, and the drug's chemical characteristics. Different brands share the same code if they have the same active substance and indications.

In our database, atc entity is directly related with medicine. We used atc entity for classification and group for the medicines. ATC entity includes atc\_id, atc\_code and atc\_name attributes. atc\_id is primary key.

#	Adı	Türü	Karşılaştırma	Öznitelikler	Boş	Varsayılan	Açıklamalar	Ekstra	Eylem
<input type="checkbox"/> 1	<b>atc_id</b>	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/> 2	<b>atc_code</b>	varchar(11) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/> 3	<b>atc_name</b>	varchar(50) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla

### 2 – Medicine:

Medicine is basic entity for our database. Medicine entity include medicine\_name, medicine\_id, barcode, expiration\_date attributes. medicine\_id is primary key.

#	Adı	Türü	Karşılaştırma	Öznitelikler	Boş	Varsayılan	Açıklamalar	Ekstra	Eylem
<input type="checkbox"/> 1	<b>medicine_atcid</b>	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/> 2	<b>medicine_id</b>	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/> 3	<b>medicine_name</b>	varchar(50) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/> 4	<b>barcode</b>	bigint(15)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/> 5	<b>expiration_date</b>	date			Hayır	Yok			Değiştir  Kaldır  Daha fazla

### 3 – Branch Offices:

Pharmacy purchases medicines through branch offices. Branch offices' attributes are firm\_branch\_office, branch\_office\_id, branch\_call\_number, branch\_fax\_number.

branch\_office\_id is primary key.

#	Adı	Türü	Karşılaştırma	Öznitelikler	Boş	Varsayılan	Açıklamalar	Ekstra	Eylem
<input type="checkbox"/>	1 med_id	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	2 suppfirm_id	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	3 branch_office_id	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	4 firm_branch_office	varchar(50) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	5 branch_call_number	varchar(15) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	6 branch_fax_number	varchar(15) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla

### 4 – Firm:

Firm is the last part of our database. Firms' attributes are supplier\_firm\_id, firm\_name, firm\_call\_number, firm\_fax\_number.

#	Adı	Türü	Karşılaştırma	Öznitelikler	Boş	Varsayılan	Açıklamalar	Ekstra	Eylem
<input type="checkbox"/>	1 supplier_firm_id	int(11)			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	2 firm_name	varchar(50) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	3 firm_call_number	varchar(15) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla
<input type="checkbox"/>	4 firm_fax_number	varchar(15) utf8_turkish_ci			Hayır	Yok			Değiştir  Kaldır  Daha fazla

### Attributes:

Some attributes need numerical values. That's why we determine them as "int" or "bigint". Some attributes need alphabetical values. That's why we determine them as "varchar". Also, we determined one of them as "date" because that needs a particular date data. Restrictions may differ. For example atc\_code is varchar, and atc\_name is varchar as well, but data sizes are different. Because of this reason, restriction of atc\_code is 11, but restriction of atc\_name is 50. To sum up, constraints are all about size(range) of the data in our database.

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## Relationships

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### 1) ATC – Medicine Relationship:

We explained “what is atc” in previous pages and now we explain how we used atc in database. We classified to medicines based on atc codes and atc names. Pharmacists can see clearly to types of medicines with using this classification. This classification is our basic classification and after this, we created other steps.

*One atc code and one atc name can taken by more than one medicines.*

ATC – Medicine relationship has one-to-many (1:M) relationship.

### 2) Medicine – Branch Office Relationship:

In here, we supplies medicines from branch offices as pharmacy.

*One medicine can be supplied by pharmacy from just one brachn office.*

Medicine – branch office relationship has one-to-one (1:1) relationship.

### 3) Branch Office – Firm Relationship:

Firms opens branch offices in different points and these branch offices supplies medicines from firms. Firms distributes medicines with their own branch offices. Firms using branch offices because prevent more stock and prevent unnecessary produce because all pharmacies not need same type of medicines.

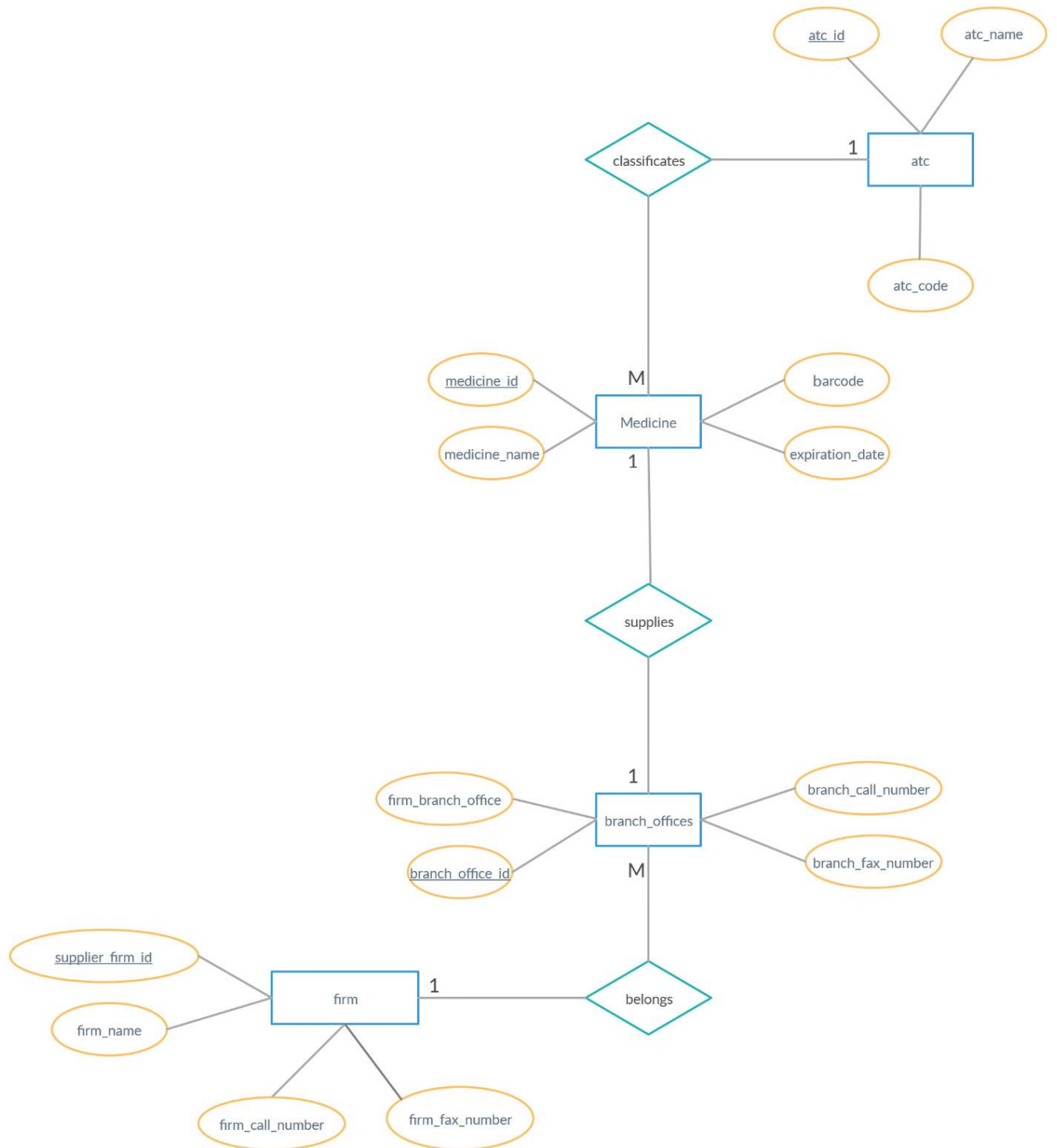
*Many branch offices belong to only one firm.*

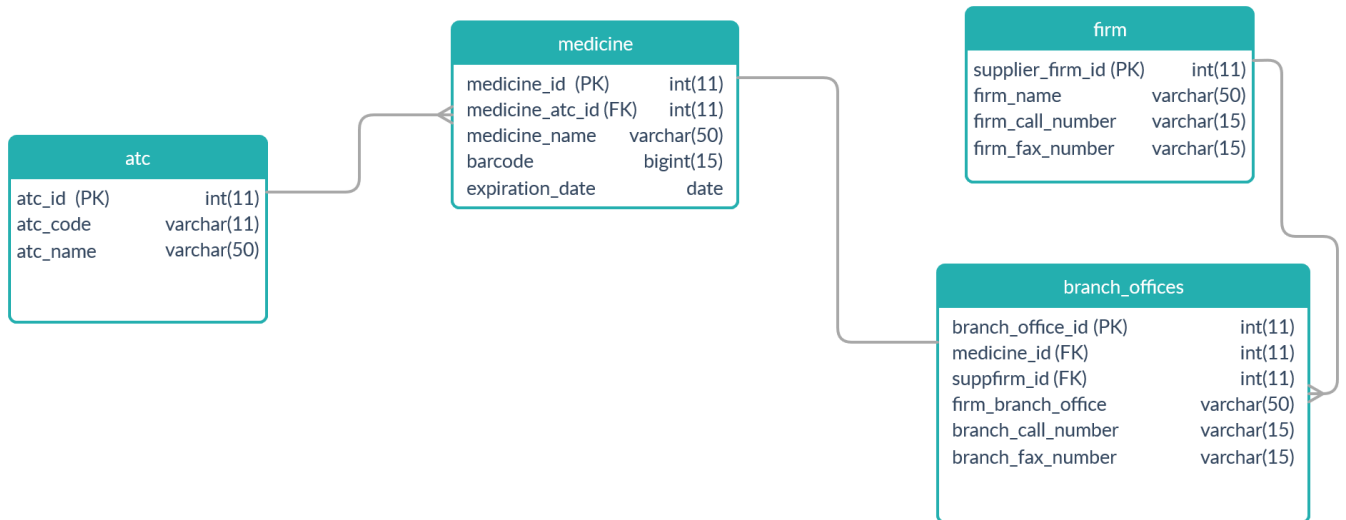
Branch office – firm relationship has many-to-one (M:1) relationship.

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## ER Diagram and Tables

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## Tables:

atc_id	atc_code	atc_name
1	R05X	dapagliflozin
2	J01CR02	metamizole sodium
3	N02BB02	ramipril and diuretics
4	A10BK01	propranolol
5	C07AG02	carvedilol sodium

medicine_at cid	medicine _id	medicine_name	barcode	expiration_d ate
1	1	A-FERIN 300 MG 30 KAPSUL	8699570150011	2022-05-22
1	2	AMOKLAVIN BID 1000 MG 14 FILM TABLET	8699525093189	2022-12-15
4	3	APIREKS COLD&FLU 200 MG/30 MG 24 FILM KAPLI TABLET	8699569091868	2022-11-08
3	4	APRANAX 275 MG 20 FILM KAPLI TABLET	8699514091516	2022-11-13
5	5	ARLEC 25 MG 28 TABLET	8699543010656	2022-06-15
4	6	ATOR 20 MG 30 FILM TABLET	8699536090160	2021-03-18
5	7	AUGMENTIN BID 1000 MG 10 FILM TABLET	8699522095711	2022-09-04
4	8	BELOC ZOK 100 MG 20 TABLET	8699786030374	2022-05-07
5	9	CALPOL 500 MG 15 TABLET	8699809015501	2023-05-20
3	10	DELIX PLUS 10 MG/25 MG 28 TABLET	8699809018303	2022-07-07
4	11	DIDERAL 40 MG 50 TABLET	8699809018082	2021-01-20
2	12	FORZIGA 10 MG 28 FILM KAPLI TABLET	8699786092730	2022-05-25
3	13	GLUKOFEN 1000 MG 100 FILM TABLET	8699516097851	2022-11-10
1	14	KLAMOKS BID 1000 MG 14 FILM TABLET	8699569090694	2022-11-30
5	15	LASIX 40 MG 12 TABLET	8699809014008	2021-09-27
2	16	MICARDIS 80 MG 28 TABLET	8699693010087	2021-12-17
1	17	NOVALGIN 500 MG 20 TABLET	8699809015012	2021-02-17
2	18	NUROFEN COLD FLU 24 TABLET	8690570010008	2022-03-10
2	19	PAROL 500 MG 30 TABLET	8699717010093	2022-01-15
3	20	TYLOL 500 MG 20 TABLET	8699540013704	2021-02-19

med_i d	suppfir _id	branch_offic e_id	firm_branch_offi ce	branch_call_nu mber	branch_fax_nu mber
17	7	1	Şişli/İSTANBUL	0(212)850-72-72	0(212)950-72-72
5	2	2	Şirinevler/İSTANBUL	0(212)850-73-73	0(212)950-73-73
9	7	3	Sarıyer/İSTANBUL	0(212)850-76-76	0(212)950-76-76
8	6	4	Fatih/İSTANBUL	0(212)850-80-80	0(212)950-80-80
11	1	5	Esenyurt/İSTANBUL	0(212)850-81-81	0(212)950-81-81
6	1	6	Beşiktaş/İSTANBUL	0(212)850-86-86	0(212)950-86-86
1	2	7	Bakırköy/İSTANBUL	0(212)850-88-88	0(212)950-88-88
13	7	8	Avcılar/İSTANBUL	0(212)850-89-89	0(212)950-89-89
18	6	9	Şile/İSTANBUL	0(216)850-74-74	0(216)950-74-74
2	1	10	Kadıköy/İSTANBUL	0(216)850-78-78	0(216)950-78-78
19	2	11	Beykoz/İSTANBUL	0(216)850-85-85	0(216)950-85-85
3	4	12	Konak/İZMİR	0(232)850-77-77	0(232)950-77-77
4	8	13	Foça/İZMİR	0(232)850-79-79	0(232)950-79-79
7	8	14	Bornova/İZMİR	0(232)850-84-84	0(232)950-84-84
12	4	15	Balçova/İZMİR	0(232)850-87-87	0(232)950-87-87
15	5	16	Yenimahalle/ANKARA	0(312)850-71-71	0(312)950-71-71
10	3	17	Sincan/ANKARA	0(312)850-75-75	0(312)950-75-75
14	5	18	Çubuk/ANKARA	0(312)850-82-82	0(312)950-82-82
20	3	19	Çankaya/ANKARA	0(312)850-83-83	0(312)950-83-83
16	5	20	Altındağ/ANKARA	0(312)850-90-90	0(312)950-90-90

supplier_fir m_id	firm_name	firm_call_num ber	firm_fax_num ber
1	ABDI İBRAHİM	0(216)214-45-69	0(216)213-40-70
2	DEVA HOLDİNG	0(212)214-78-96	0(212)217-08-15
3	TAKEDA	0(312)147-52-63	0(312)145-50-60
4	POLİFARMA	0(232)521-54-87	0(232)141-45-40
5	NOBEL İLAC SANAYİ	0(312)245-08-55	0(312)244-09-54
6	ALİ RAİF	0(216)850-45-65	0(216)851-46-66
7	BİLİM	0(212)236-54-78	0(212)238-56-75
8	SANOFİ AVENTIS	0(232)462-63-52	0(232)460-60-50

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## Normalization

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Initially, we had only one table. We saw that our database is already in 1st normal form because there is no any atomic values in our columns. Each attributes has only one single value.

To be in 2nd normal form, although all non-key attributes must be fully functional dependent on the primary keys, it wasn't, and we realized that our table has many data repetition. This causes normalization problems. Due to this reason, we divided our table into four tables, and we obtained four connected tables. These are "**atc**", "**branch\_offices**", "**firm**", and "**medicine**". In this way, datas that repeat were divided. we assigned foreign keys in two tables to connect all tables each other. These foreign keys are med\_id, suppfirm\_id, medicine\_atcid. Also we assigned some uniquely identified primary keys for all tables. These are atc\_id, branch\_office\_id, supplier\_firm\_id, medicine\_id. We saw that all non-key attributes are fully functional dependent on the primary keys. This means we are in 2nd normal form now.

After all this operations, in our database, there is no any atomic values, partial dependency, data repetition, and there is no any transitive dependency because all non-key attributes depend on only primary keys. This means non-key attributes can not define each other without primary keys. So, primary key defines all non-key columns on its own. Due to this reason, we believe that our database is in 3rd normal form.

## Queries

SQL File 1\* x SQL File 2\* SQL File 3\* SQL File 4\*

Limit to 1000 rows

```
1 • select * from atc;
```

2

Result Grid

atc_id	atc_code	atc_name
1	R05X	dapagliflozin
2	J01CR02	metamizole sodium
3	N02BB02	ramipril and diuretics
4	A10BK01	propranolol
5	C07AG02	carvedilol sodium

SQL File 1\* SQL File 2\* x SQL File 3\* SQL File 4\*

Limit to 1000 rows

```
1 • select * from branch_offices;
```

Result Grid

med_id	suppfirm_id	branch_office_id	firm_branch_office	branch_call_number	branch_fax_number
17	7	1	Şişli/İSTANBUL	0(212)850-72-72	0(212)950-72-72
5	2	2	Şirinevler/İSTANBUL	0(212)850-73-73	0(212)950-73-73
9	7	3	Sarıyer/İSTANBUL	0(212)850-76-76	0(212)950-76-76
8	6	4	Fatih/İSTANBUL	0(212)850-80-80	0(212)950-80-80
11	1	5	Esenyurt/İSTANBUL	0(212)850-81-81	0(212)950-81-81
6	1	6	Beşiktaş/İSTANBUL	0(212)850-86-86	0(212)950-86-86
1	2	7	Bakırköy/İSTANBUL	0(212)850-88-88	0(212)950-88-88
13	7	8	Avclar/İSTANBUL	0(212)850-89-89	0(212)950-89-89
18	6	9	Şile/İSTANBUL	0(216)850-74-74	0(216)950-74-74
2	1	10	Kadıköy/İSTANBUL	0(216)850-78-78	0(216)950-78-78
19	2	11	Beykoz/İSTANBUL	0(216)850-85-85	0(216)950-85-85
3	4	12	Konak/İZMİR	0(232)850-77-77	0(232)950-77-77
4	8	13	Foça/İZMİR	0(232)850-79-79	0(232)950-79-79
7	8	14	Bornova/İZMİR	0(232)850-84-84	0(232)950-84-84
12	4	15	Balçova/İZMİR	0(232)850-87-87	0(232)950-87-87
15	5	16	Yenimahalle/ANKARA	0(312)850-71-71	0(312)950-71-71
10	3	17	Sincan/ANKARA	0(312)850-75-75	0(312)950-75-75
14	5	18	Çubuk/ANKARA	0(312)850-82-82	0(312)950-82-82
20	3	19	Çankaya/ANKARA	0(312)850-83-83	0(312)950-83-83
16	5	20	Altındağ/ANKARA	0(312)850-90-90	0(312)950-90-90

SQL File 1\* SQL File 2\* SQL File 3\* x SQL File 4\*

Limit to 1000 rows

1 • select \* from firm;

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
supplier_firm_id	firm_name	firm_call_number	firm_fax_number	
1	ABDI IBRAHIM	0(216)214-45-69	0(216)213-40-70	
2	DEVA HOLDING	0(212)214-78-96	0(212)217-08-15	
3	TAKEDA	0(312)147-52-63	0(312)145-50-60	
4	POLIFARMA	0(232)521-54-87	0(232)141-45-40	
5	NOBEL ILAC SANAYI	0(312)245-08-55	0(312)244-09-54	
6	ALI RAIF	0(216)850-45-65	0(216)851-46-66	
7	BILIM	0(212)236-54-78	0(212)238-56-75	
8	SANOFI AVENTIS	0(232)462-63-52	0(232)460-60-50	

firm 2 x Apply Revert

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* x

Limit to 1000 rows

1 • select \* from medicine;

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
medicine_atcd	medicine_id	medicine_name	barcode	expiration_date
1	1	A-FERIN 300 MG 30 KAPSUL	8699570150011	2022-05-22 00:00:00
1	2	AMOKLAVIN BID 1000 MG 14 FILM TABLET	8699525093189	2022-12-15 00:00:00
4	3	APIREKS COLD&FLU 200 MG/30 MG 24 FILM KA...	8699569091868	2022-11-08 00:00:00
3	4	APRANAX 275 MG 20 FILM KAPLI TABLET	8699514091516	2022-11-13 00:00:00
5	5	ARLEC 25 MG 28 TABLET	8699543010656	2022-06-15 00:00:00
4	6	ATOR 20 MG 30 FILM TABLET	8699536090160	2021-03-18 00:00:00
5	7	AUGMENTIN BID 1000 MG 10 FILMTABLET	8699522095711	2022-09-04 00:00:00
4	8	BELOC ZOK 100 MG 20 TABLET	8699786030374	2022-05-07 00:00:00
5	9	CALPOL 500 MG 15 TABLET	8699809015501	2023-05-20 00:00:00
3	10	DELIX PLUS 10 MG/25 MG 28 TABLET	8699809018303	2022-07-07 00:00:00
4	11	DIDERAL 40 MG 50 TABLET	8699809018082	2021-01-20 00:00:00
2	12	FORZIGA 10 MG 28 FILM KAPLI TABLET	8699786092730	2022-05-25 00:00:00
3	13	GLUKOFEN 1000 MG 100 FILM TABLET	8699516097851	2022-11-10 00:00:00
1	14	KLAMOKS BID 1000 MG 14 FILM TABLET	8699569090694	2022-11-30 00:00:00
5	15	LASIX 40 MG 12 TABLET	8699809014008	2021-09-27 00:00:00
2	16	MICARDIS 80 MG 28 TABLET	8699693010087	2021-12-17 00:00:00
1	17	NOVALGIN 500 MG 20 TABLET	8699809015012	2021-02-17 00:00:00
2	18	NUROFEN COLD FLU 24 TABLET	8690570010008	2022-03-10 00:00:00
2	19	PAROL 500 MG 30 TABLET	8699717010093	2022-01-15 00:00:00
3	20	TYLOL 500 MG 20 TABLET	8699540013704	2021-02-19 00:00:00

SQL File 1\* x SQL File 2\* x SQL File 3\* x SQL File 4\*

Limit to 1000 rows

```
1 • select atc_name from atc;
2
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

atc_name
dapagliflozin
metamizole sodium
rampiril and diuretics
propranolol
carvedilol sodium

atc 6 x Read Only

SQL File 1\* x SQL File 2\* x SQL File 3\* x SQL File 4\*

Limit to 1000 rows

```
1 • select firm_branch_office from branch_offices;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

firm_branch_office
Şişli/İSTANBUL
Şirinevler/İSTANBUL
Sarıyer/İSTANBUL
Fatih/İSTANBUL
Esenyurt/İSTANBUL
Beşiktaş/İSTANBUL
Bakırköy/İSTANBUL
Avclar/İSTANBUL
Şile/İSTANBUL
Kadıköy/İSTANBUL
Beykoz/İSTANBUL
Konak/İZMİR
Foça/İZMİR
Bornova/İZMİR
Balçova/İZMİR
Yenimahalle/ANKARA
Sincan/ANKARA
Çubuk/ANKARA
Çankaya/ANKARA
Altındağ/ANKARA



SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* x

Limit to 1000 rows

```
1 • select * from medicine where medicine_atcid = 3;
```

Result Grid

medicine_atcid	medicine_id	medicine_name	barcode	expiration_date
3	4	APRANAX 275 MG 20 FILM KAPLI TABLET	8699514091516	2022-11-13 00:00:00
3	10	DELIX PLUS 10 MG/25 MG 28 TABLET	8699809018303	2022-07-07 00:00:00
3	13	GLUKOFEN 1000 MG 100 FILM TABLET	8699516097851	2022-11-10 00:00:00
3	20	TYLOL 500 MG 20 TABLET	8699540013704	2021-02-19 00:00:00
NULL	NULL	NULL	NULL	NULL

Form Editor  
Field Types

SQL File 1\* SQL File 2\* x SQL File 3\* SQL File 4\*

Limit to 1000 rows

```
1 • select * from branch_offices where branch_call_number = "0(216)850-85-85";
```

Result Grid

med_id	suppfirm_id	branch_office_id	firm_branch_office	branch_call_number	branch_fax_number
19	2	11	Beykoz/İSTANBUL	0(216)850-85-85	0(216)950-85-85
NULL	NULL	NULL	NULL	NULL	NULL

Form Editor  
Field Types  
Query Stats  
Execution Plan

SQL File 1\* SQL File 2\* x SQL File 3\* SQL File 4\*

Limit to 1000 rows

1 • select \* from branch\_offices where suppfirml\_id = 2 or branch\_fax\_number = "0(212)950-81-81";

Result Grid

med_id	suppfirml_id	branch_office_id	firml_branch_office	branch_call_number	branch_fax_number
17	7	1	Şişli/İSTANBUL	0(212)850-72-72	0(212)950-72-72
5	2	2	Şirinevler/İSTANBUL	0(212)850-73-73	0(212)950-73-73
9	7	3	Sarıyer/İSTANBUL	0(212)850-76-76	0(212)950-76-76
8	6	4	Fatih/İSTANBUL	0(212)850-80-80	0(212)950-80-80
11	1	5	Esenyurt/İSTANBUL	0(212)850-81-81	0(212)950-81-81
6	1	6	Beşiktaş/İSTANBUL	0(212)850-86-86	0(212)950-86-86
1	2	7	Bakırköy/İSTANBUL	0(212)850-88-88	0(212)950-88-88
13	7	8	Avclar/İSTANBUL	0(212)850-89-89	0(212)950-89-89
18	6	9	Şile/İSTANBUL	0(216)850-74-74	0(216)950-74-74
2	1	10	Kadıköy/İSTANBUL	0(216)850-78-78	0(216)950-78-78
19	2	11	Beykoz/İSTANBUL	0(216)850-85-85	0(216)950-85-85
3	4	12	Konak/İZMİR	0(232)850-77-77	0(232)950-77-77
4	8	13	Foça/İZMİR	0(232)850-79-79	0(232)950-79-79
7	8	14	Bornova/İZMİR	0(232)850-84-84	0(232)950-84-84
12	4	15	Balçova/İZMİR	0(232)850-87-87	0(232)950-87-87
15	5	16	Yenimahalle/ANKARA	0(312)850-71-71	0(312)950-71-71
10	3	17	Sincan/ANKARA	0(312)850-75-75	0(312)950-75-75
14	5	18	Çubuk/ANKARA	0(312)850-82-82	0(312)950-82-82
20	3	19	Çankaya/ANKARA	0(312)850-83-83	0(312)950-83-83
16	5	20	Altındağ/ANKARA	0(312)850-90-90	0(312)950-90-90

branch\_offices 7 x

Apply Revert

SQL File 1\* SQL File 2\* x SQL File 3\* SQL File 4\*

Limit to 1000 rows

1 • select \* from branch\_offices order by med\_id;

Result Grid

med_id	suppfirml_id	branch_office_id	firml_branch_office	branch_call_number	branch_fax_number
1	2	7	Bakırköy/İSTANBUL	0(212)850-88-88	0(212)950-88-88
2	1	10	Kadıköy/İSTANBUL	0(216)850-78-78	0(216)950-78-78
3	4	12	Konak/İZMİR	0(232)850-77-77	0(232)950-77-77
4	8	13	Foça/İZMİR	0(232)850-79-79	0(232)950-79-79
5	2	2	Şirinevler/İSTANBUL	0(212)850-73-73	0(212)950-73-73
6	1	6	Beşiktaş/İSTANBUL	0(212)850-86-86	0(212)950-86-86
7	8	14	Bornova/İZMİR	0(232)850-84-84	0(232)950-84-84
8	6	4	Fatih/İSTANBUL	0(212)850-80-80	0(212)950-80-80
9	7	3	Sarıyer/İSTANBUL	0(212)850-76-76	0(212)950-76-76
10	3	17	Sincan/ANKARA	0(312)850-75-75	0(312)950-75-75
11	1	5	Esenyurt/İSTANBUL	0(212)850-81-81	0(212)950-81-81
12	4	15	Balçova/İZMİR	0(232)850-87-87	0(232)950-87-87
13	7	8	Avclar/İSTANBUL	0(212)850-89-89	0(212)950-89-89
14	5	18	Çubuk/ANKARA	0(312)850-82-82	0(312)950-82-82
15	5	16	Yenimahalle/ANKARA	0(312)850-71-71	0(312)950-71-71
16	5	20	Altındağ/ANKARA	0(312)850-90-90	0(312)950-90-90
17	7	1	Şişli/İSTANBUL	0(212)850-72-72	0(212)950-72-72
18	6	9	Şile/İSTANBUL	0(216)850-74-74	0(216)950-74-74
19	2	11	Beykoz/İSTANBUL	0(216)850-85-85	0(216)950-85-85
20	3	19	Çankaya/ANKARA	0(312)850-83-83	0(312)950-83-83

branch\_offices 13 x

Apply Revert

SQL File 1\* SQL File 2\* x SQL File 3\* SQL File 4\*

Limit to 1000 rows

```
1 • select * from branch_offices where firm_branch_office like "b%" order by med_id;
```

Result Grid

med_id	suppfirm_id	branch_office_id	firm_branch_office	branch_call_number	branch_fax_number
1	2	7	Bakırköy/İSTANBUL	0(212)850-88-88	0(212)950-88-88
6	1	6	Beşiktaş/İSTANBUL	0(212)850-86-86	0(212)950-86-86
7	8	14	Bornova/İZMİR	0(232)850-84-84	0(232)950-84-84
12	4	15	Bağcova/İZMİR	0(232)850-87-87	0(232)950-87-87
19	2	11	Beykoz/İSTANBUL	0(216)850-85-85	0(216)950-85-85
NULL	NULL	NULL	NULL	NULL	NULL

branch\_offices 21 x

Apply Revert

Result Grid  
Form Editor  
Field Types  
Query Stats  
Execution Plan

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* x

Limit to 1000 rows

```
1 select branch_offices.firm_branch_office, medicine.medicine_name
2 from medicine
3 inner join branch_offices on medicine.medicine_id = branch_offices.med_id;
```

Result Grid

firm_branch_office	medicine_name
Şişli/İSTANBUL	NOVALGIN 500 MG 20 TABLET
Şirinevler/İSTANBUL	ARLEC 25 MG 28 TABLET
Sarıyer/İSTANBUL	CALPOL 500 MG 15 TABLET
Fatih/İSTANBUL	BELOC ZOK 100 MG 20 TABLET
Esenyurt/İSTANBUL	DIDERAL 40 MG 50 TABLET
Beşiktaş/İSTANBUL	ATOR 20 MG 30 FILM TABLET
Bakırköy/İSTANBUL	A-FERIN 300 MG 30 KAPSUL
Avclar/İSTANBUL	GLUKOFEN 1000 MG 100 FILM TABLET
Şile/İSTANBUL	NUROFEN COLD FLU 24 TABLET
Kadıköy/İSTANBUL	AMOKLAVIN BID 1000 MG 14 FILM TABLET
Beykoz/İSTANBUL	PAROL 500 MG 30 TABLET
Konak/İZMİR	APIREKS COLD&FLU 200 MG/30 MG 24 FI...
Foça/İZMİR	APRANAX 275 MG 20 FILM KAPLI TABLET
Bornova/İZMİR	AUGMENTIN BID 1000 MG 10 FILM TABLET
Bağcova/İZMİR	FORZIGA 10 MG 28 FILM KAPLI TABLET
Yenimahalle/ANKARA	LASIX 40 MG 12 TABLET
Sincan/ANKARA	DELIX PLUS 10 MG/25 MG 28 TABLET
Çubuk/ANKARA	KLAMOKS BID 1000 MG 14 FILM TABLET
Çankaya/ANKARA	TYLOL 500 MG 20 TABLET
Altındağ/ANKARA	MICARDIS 80 MG 28 TABLET

Result 1 x

Read Only

Result Grid  
Form Editor  
Field Types  
Query Stats  
Execution Plan



SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* SQL File 8\* x

Limit to 1000 rows

```
1 • select branch_offices.firm_branch_office, medicine.medicine_name
2 from medicine
3 inner join branch_offices on medicine.medicine_id = branch_offices.med_id
4 where medicine.medicine_name like "a%" limit 5 ;
```

Result Grid Filter Rows: Export: Wrap Cell Content: Fetch rows:

firm_branch_office	medicine_name
Şirinevler/İSTANBUL	ARLEC 25 MG 28 TABLET
Beşiktaş/İSTANBUL	ATOR 20 MG 30 FILM TABLET
Bakırköy/İSTANBUL	A-FERIN 300 MG 30 KAPSUL
Kadıköy/İSTANBUL	AMOKLAVIN BID 1000 MG 14 FILM TABLET
Konak/İZMİR	APIREKS COLD&FLU 200 MG/30 MG 24 FILM KA...

Result Grid Form Editor Field Types Query Stats

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* SQL File 8\* SQL File 9\* x

Limit to 1000 rows

```
1 • select firm.firm_name, branch_offices.branch_fax_number
2 from branch_offices
3 left join firm on branch_offices.suppfirm_id = firm.supplier_firm_id;
```

Result Grid Filter Rows: Export: Wrap Cell Content:

firm_name	branch_fax_number
BILIM	0(212)950-72-72
DEVA HOLDING	0(212)950-73-73
BILIM	0(212)950-76-76
ALI RAIK	0(212)950-80-80
ABDI IBRAHİM	0(212)950-81-81
ABDI IBRAHİM	0(212)950-86-86
DEVA HOLDING	0(212)950-88-88
BILIM	0(212)950-89-89
ALI RAIK	0(216)950-74-74
ABDI IBRAHİM	0(216)950-78-78
DEVA HOLDING	0(216)950-85-85
POLIFARMA	0(232)950-77-77
SANOFI AVENTIS	0(232)950-79-79
SANOFI AVENTIS	0(232)950-84-84
POLIFARMA	0(232)950-87-87
NOBEL İLAC S...	0(312)950-71-71
TAKEDA	0(312)950-75-75
NOBEL İLAC S...	0(312)950-82-82
TAKEDA	0(312)950-83-83
NOBEL İLAC S...	0(312)950-90-90

Result Grid Form Editor Field Types Query Stats Execution Plan

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* SQL File 8\* SQL File 9\* x

Limit to 1000 rows

```
1 • select firm.firm_name, branch_offices.branch_fax_number
2 from branch_offices
3 left join firm on branch_offices.suppfirm_id = firm.supplier_firm_id
4 where firm.firm_name like "_e%" or firm.firm_name like "a%"
5 order by firm_name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

firm_name	branch_fax_number
ABDI IBRAHIM	0(212)950-81-81
ABDI IBRAHIM	0(212)950-86-86
ABDI IBRAHIM	0(216)950-78-78
ALI RAIF	0(212)950-80-80
ALI RAIF	0(216)950-74-74
DEVA HOLDING	0(212)950-73-73
DEVA HOLDING	0(212)950-88-88
DEVA HOLDING	0(216)950-85-85

Result Grid  
Form Editor  
Field Types  
Query Stats

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* SQL File 8\* SQL File 9\* SQL File 10\* x

Limit to 1000 rows

```
1 • select atc.atc_name, medicine.expiration_date
2 from medicine
3 right join atc on medicine.medicine_atcid = atc.atc_id;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

atc_name	expiration_date
dapagliflozin	2022-05-22 00:00:00
dapagliflozin	2022-12-15 00:00:00
dapagliflozin	2022-11-30 00:00:00
dapagliflozin	2021-02-17 00:00:00
metamizole sodium	2022-05-25 00:00:00
metamizole sodium	2021-12-17 00:00:00
metamizole sodium	2022-03-10 00:00:00
metamizole sodium	2022-01-15 00:00:00
ramipril and diuretics	2022-11-13 00:00:00
ramipril and diuretics	2022-07-07 00:00:00
ramipril and diuretics	2022-11-10 00:00:00
ramipril and diuretics	2021-02-19 00:00:00
propranolol	2022-11-08 00:00:00
propranolol	2021-03-18 00:00:00
propranolol	2022-05-07 00:00:00
propranolol	2021-01-20 00:00:00
carvedilol sodium	2022-06-15 00:00:00
carvedilol sodium	2022-09-04 00:00:00
carvedilol sodium	2023-05-20 00:00:00
carvedilol sodium	2021-09-27 00:00:00

Result Grid  
Form Editor  
Field Types  
Query Stats  
Execution Plan

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* SQL File 8\* SQL File 9\* SQL File 10\* x

Limit to 1000 rows

```
1 • select atc.atc_name, medicine.expiration_date
2   from medicine
3  right join atc on medicine.medicine_atcid = atc.atc_id
4  order by expiration_date
5  limit 12;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows: |

atc_name	expiration_date
propranolol	2021-01-20 00:00:00
dapagliflozin	2021-02-17 00:00:00
ramipril and diuretics	2021-02-19 00:00:00
propranolol	2021-03-18 00:00:00
carvedilol sodium	2021-09-27 00:00:00
metamizole sodium	2021-12-17 00:00:00
metamizole sodium	2022-01-15 00:00:00
metamizole sodium	2022-03-10 00:00:00
propranolol	2022-05-07 00:00:00
dapagliflozin	2022-05-22 00:00:00
metamizole sodium	2022-05-25 00:00:00
carvedilol sodium	2022-06-15 00:00:00

Result 8 x Read Only

SQL File 1\* SQL File 2\* SQL File 3\* SQL File 4\* SQL File 7\* SQL File 9\* SQL File 10\* SQL File 11\* SQL File 12\* SQL File 11\* x

Limit to 1000 rows

```
1 • select x.firm_name as fn, y.firm_branch_office as fbo, x.supplier_firm_id
2   from firm x, branch_offices y
3  where x.supplier_firm_id = y.suppfirm_id
4  order by firm_name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

fn	fbo	supplier_firm_id
ABDI IBRAHIM	Esenyurt/İSTANBUL	1
ABDI IBRAHIM	Beşiktaş/İSTANBUL	1
ABDI IBRAHIM	Kadıköy/İSTANBUL	1
ALI RAIF	Fatih/İSTANBUL	6
ALI RAIF	Şile/İSTANBUL	6
BİLİM	Şişli/İSTANBUL	7
BİLİM	Sarıyer/İSTANBUL	7
BİLİM	Avclar/İSTANBUL	7
DEVA HOLDING	Şirinevler/İSTANBUL	2
DEVA HOLDING	Bakırköy/İSTANBUL	2
DEVA HOLDING	Beykoz/İSTANBUL	2
NOBEL İLAC S...	Yenimahalle/ANKARA	5
NOBEL İLAC S...	Çubuk/ANKARA	5
NOBEL İLAC S...	Altındağ/ANKARA	5
POLIFARMA	Konak/İZMİR	4
POLIFARMA	Balçova/İZMİR	4
SANOFI AVENTIS	Foça/İZMİR	8
SANOFI AVENTIS	Bornova/İZMİR	8
TAKEDA	Sincan/ANKARA	3
TAKEDA	Çankaya/ANKARA	3