

# Topshirizig

PName	Price	Category	Manufacturer
Gizmo	\$ 19.99	Gadgets	Gizmoworks
Powergizmo	\$ 29.99	Gadgets	Gizmoworks
Single Touch	\$ 49.99	Photography	Canon
Multitouch	\$ 203.99	Household	Hitachi

**SELECT DISTINCT category**

**FROM Product**

**ORDER BY category**

\* **DISTINCT** Ber kaitiñ soz SQL sõroovi-da takorreassechii qismatini olib tashqa ñ-ni isheatilade. Demak, agar bir xel kategoriya ber necha marta onaylid bõlsa, sagat lissa prosesi cüqariладе.

\* **ORDER BY** sozini alifbo tarilibda körsatilade.

Natija:

Gadgets

Household

Photography

2. SELECT Category  
FROM Product  
ORDER BY PName;

\* Bu sərəsən Category restəvəri olur  
garadı, lakin məhsələt nə-  
miga (PName) garab tərtibləydi

ORDER BY PName: Məhsələt nəmisi  
bəyicha sıtiyəsəri alıfba tərtibida  
cənigərlədi:

Sıtiya:

Gadgets

Household

Gadgets

Photography

3. SELECT DISTINCT category  
FROM Product

ORDER BY PName;

Bu sərəsən təqribən işləşdirilən vəz

SELECT DISTINCT category

FROM Product

ORDER BY category;

Kərinishlərdə bəllihi k-k.

Topshirig.

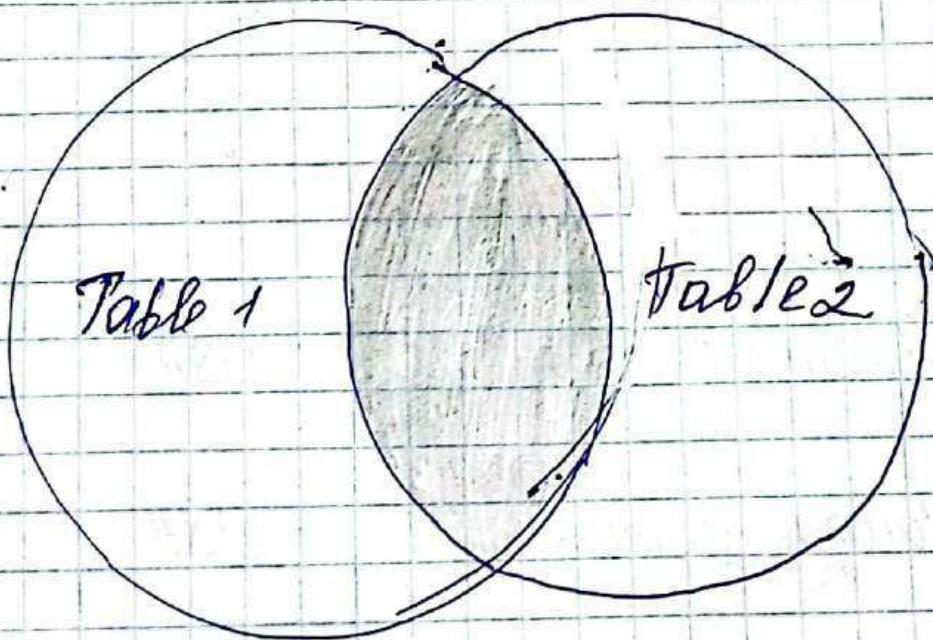
Company

CName	Stock Price	Country
GizmoWorks	25	USA
Canon	65	Japan
Hitachi	15	Japan

Product

PNam	Price	Category	Manufacturer
Gizmo	\$19.99	Gadgets	GizmoWorks
Powergizmo	\$29.99	Gadgets	GizmoWorks
Single Torch	\$149.99	Photography	Canon
Multi-Torch	\$203.99	Household	Hitachi

INNER JOIN



INNER JOIN 2ta yadroldagi mos keladigan qymat, asonda sagat mos keladigan (kelişgen) sra-lumottni qaytaradi:

SELECT \*  
 FROM Product p  
 INNER JOIN Company c  
 ON p.Manufacturer = c.CName;  
 Yessilegan qismat:

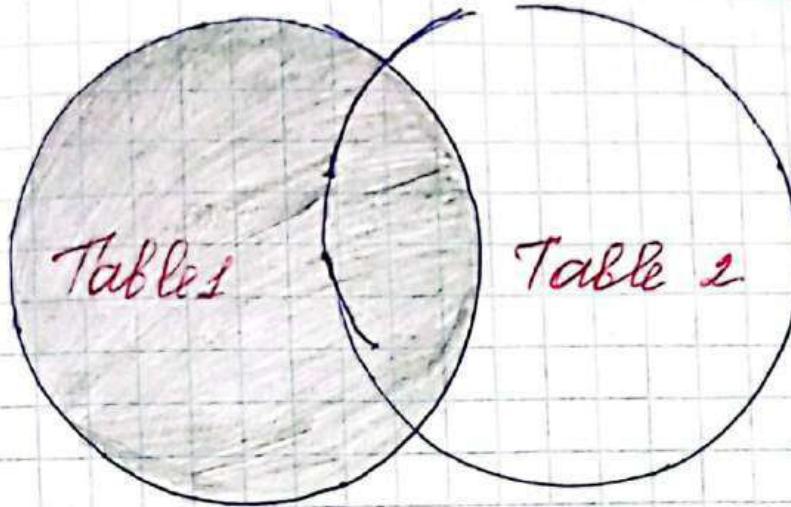
Manufacturer (Product jadvalidam)	CName (Company jadvalidam)
Gizmo Works	Gizmo Works
Canon	Canon
Hitachi	Hitachi

Natiqchalar:

Name	Price	Category	Manufacturer	Stock Price	Country
Gizmo	\$19.99	Gadgets	Gizmoworks	25	USA
Powergi smo	\$29.99	Gadgets	Gizmoworks	25	USA
Singlife uch	\$149.99	Photography	Canon	65	Japan
Multito uch	\$203.99	Household	Hitachi	15	Japan

2.

LEFT OUTER JOIN



SELECT \*

FROM Company t1

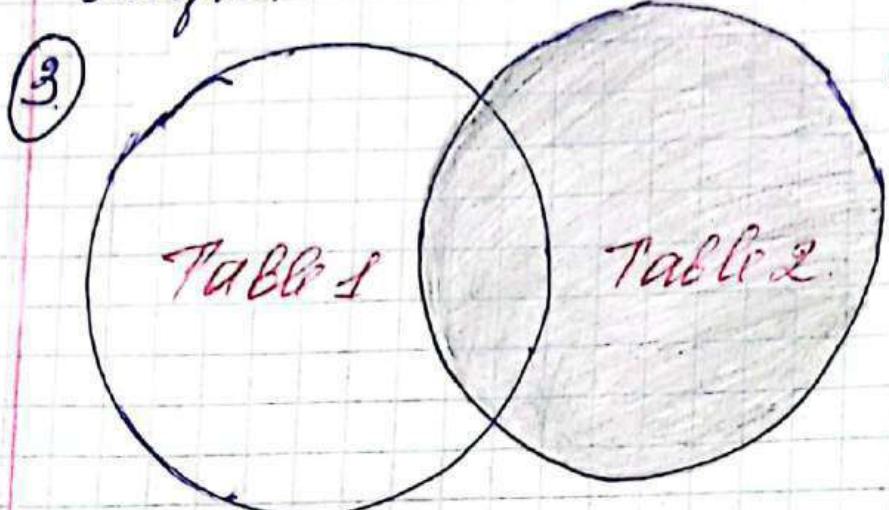
LEFT OUTER JOIN Product t2.

ON t1.CName = t2.Manufacturer;

Bu yerda Company jadvalidagi bercha kompaniyalardan,   
 ishlənən qazanıqda product jadvalidagi manufacturer  
 ətəsi ilə qarab məsələ həlqan məhsulotları bən  
 biçənətlər ilən

Name	Stock Price	Count	Country	Category	Manufacturer	
Gizmo Works	25.	USA	Gizmo	\$ 19.99	Gadgets	Gizmo Works
Gizmo Works	25.	USA	Powell	\$ 29.99	Gadgets	Gizmo Works
Canon	65	Japan	single Touch	\$ 749.99	Photography	Canon
Mitsubishi	15	Japan	Multi Touch	\$ 203.99	Household	Mitsubishi

Manufactures = CName  
craigdi.



RIGHT OUTER JOIN

SELECT \*

FROM Company t1

RIGHT OUTER JOIN Product t2

ON t1.CName = t2.Manufacturer;

CName	Stock Price	Country	PName	Price	Category	Manufacturer
Gizmo Works	25	USA	Gizmo	\$19.99	Bad gets	Gizmo works
Gizmo Works	25	USA	Power gizmo	\$29.99	Bad gets	Gizmo works
Canon	65	Japan	Single Touch	\$149.99	Photography	Canon
Hitsuchi	15	Japan	Multi Touch	\$239.99	Household	Hitsuchi

Bu natiyadə .chap jadvalidagi mos  
kilinəydiğən qeymətlər . fəstib əyib

eladi, öng (product) jadvaldagi barcha satrni ol-

hädi

FULL OUTER JOIN

Table 1

Table 2

Bu JOIN turi 2 jadvaldagi barcha ma'lumotlari gaytaradoli - mos turaganini birlashtiradi, mos turadiganini esa Null bin tiloliadi.

SELECT \*

FROM Company c

FULL OUTER JOIN Product p.

ON c.CName = p.Manufacturer;

Natija:

CName	Stock Price	Count by	PName	Price	Categ ory	Manu facturer
Gizmo Works	25	USA	Gizmo	\$ 19.99	Gadgets	Gizmo Works.
Gizmo Works	25	USA	Powergi zmo	\$ 29.99	Gadgets	Gizmo Works

Canon	55	Japan	Single Touch	\$ 44999	Photo graphy	Canon
Hitachi	15	Japan	Multi touch	\$ 20399	Househ old	Leido elio

Misollar.

- 1) select count(\*) from EXAMS\_MARKS;
- 2) select count(subject\_ID) from SUBJECT;
- 3) select student\_ID, max(mark) from EXAM\_MARKS Group by subject\_name Having max(hours) >= 34;
- 4) select \* from Mahsulot where [mahsulot\_narxi] BETWEEN 500 AND 2000;
- 5) select max([Mahsulot\_narxi]) AS Eng\_qimmat\_mahsulot\_narxi from Mahsulotlar;
- 6) select AVG([Mahsulot\_narxi]) from mahsulotlar;
- 7) select \* from Mahsulotlar where Yeraliqilar IN (Bishkek);
- 8) select \* from Mahsulotlar where [mahsulot\_narxi] BETWEEN 500 AND 2000 AND NOT Mahsulot\_id IN (6);

Yaxsholar

3) EXAMS-MARKS jadvalidagi ja'ozze  
yoxsolar sonini hisoblaydi.  
Jadvalda nechta miflon natiyasi  
(gator) bolsa, shuri sanayolu  
masalan, agar soota miflon  
natiyasi 'bolsa - natiya : 100.

2) SUBJECT jadoalidagi subj-ID ustur-  
nidagi BISH BOLNEGAN qiyoral-  
lar sonini sanayolu.

Agar subj-ID usturida soota qiy-  
madi bolsa, amoro etasi ~~MELL~~ (ya-  
ni hech narsa yosilagan)  
bolsa, bu fagoldi 8 tassiri hi-  
soblaydi.

3) Select student-ID, MAX(mark)  
from EXAM-MARKS

Group By subj-name

Having max(score) >= 34;

Yerda bir fanga (subj-name) qarab  
tqebabuning maksimal balleri  
topadi, lekin fangat soat soni 34  
yoki undan katta bolgan fan-  
lar uchun  
Bei yerda ~~YERDA~~ usturini GROUP BY  
da ishlashagan - bei miflonik.  
Dögirlangan va toliq fushuvorli  
shaklov.

SELECT subj-name, MAX(mark)

FROM EXAM-MARKS

Where score >= 34

GROUP BY subj-name;

Masalan, matematika fizika degan  
fanlar 802 year ber fan boyi-  
pera eng baland ball topreade,  
lekin sagat fan  $s = 31$  bobsa.

4)  $\text{SELECT } * \text{ FROM Mahsulotlar}$

$\text{WHERE [mahsulot narxi] BETWEEN 500}$   
 $\text{AND 2000;}$

Narxi 500 dan 2000 gacha bolgan  
mahsulotlari chiqaradi.

BETWEEN - ber 2 ta qismat oraliqini  
brendizadi. Sunday mahsulotlari  
topreadi, masalasi:

Non narxi : 800

Yog narxi : 1800

$\Rightarrow$  ber shaxsasi ham chiqaradi.

5)  $\text{SELECT MAX([Mahsulot narxi]) AS}$

[eng qismat mahsulot narxi]

$\text{FROM Mahsulotlar;}$

Gadvaldagidagi eng qismat mahsulot  
ning narxi. chiqaradi.

MAX() - maksimalliy qizmatni topadi

AS - ushuniga nom beradi.

Masalan: eng katta narx 3500 bo'

sa - natiya: eng qizmati mahsulot  
narxi = 3500

6)  $\text{SELECT AVG (Mahsulot narxi)} \text{ FROM Mahsulotlar;}$

Borchal mahsulotlarning ortacha  
narxini chiqaradi.

$\text{AVG ()}$  - average, yani ortacha,  
masalan, narxlari: 1000, 2000, 3000  $\Rightarrow$   
ortacha  $= (1000 + 2000 + 3000)/3 = 2000$

4)  $\text{SELECT * FROM Mahsulotlar}$

$\text{WHERE Yeralishlar IN ('Gushit')}$ ;

Yeralishlar uesturiode Gushit degan  
qaymati bor mahsulotlarini  
chiqaradi.

$\text{IN}$  - bu qaymatlar royxatini bil  
diradi.

Masalan.

\* Mahsulot, Mol gozli, Yeralish:

Gushit  $\Rightarrow$  chiqardi

\* Mahsulot: fut, Yeralish: Ichiqslit  
 $\Rightarrow$  chiqmaydi.

8)  $\text{SELECT * FROM Mahsulotlar}$

$\text{WHERE [mahsulot narxi] BETWEEN 500}$   
 $\text{AND 2000}$

AND mahsulot\_t\_id NOT IN (2);

Narxi 500-2000 oraligida, lekin  
mahsulot\_t\_id 2 ga teng bolonagan  
mahsulotlarini chiqaradi.

\* BETWEEN 500 AND 2000 - narx  
oraligi

\* NOT IN (2) - mahsulot turi ID,  
bolonasi

Masalan:

\* Mahsulot: yod narxi: 1500,  
turi: 3 ⇒ chiqadi

\* Mahsulot: Pishlog, narxi: 1800,  
turi: 2 ⇒ chiqmaydi.

3 - tephkurg

1. G Jadroal tuzish u-n CREATE TABLE  
buymugidan faydalananiz.

1. GURUHLAR jadvale:

CREATE TABLE GURUHLAR (

Guruh\_nomeri VARCHAR (20) PRIMARY

KEY,

Mutaxasis\_kode VARCHAR (20),

Mutaxasis\_nomi VARCHAR (100),

BOSQICH III.

Guruhda - talabalar - soni INT

2. TALABALAR jadvali:

CREATE TABLE TALABALAR (

TALABA-nomeri VARCHAR (20) PRIMARY

KEY,

Guruh-nomeri VARCHAR (20),

Familiya VARCHAR (50),

Ismi VARCHAR (50),

shaxifi VARCHAR (50),

Adres VARCHAR (200),

Telefon VARCHAR (20),

FOREIGN KEY (Guruh-nomeri) REFERENCES

GURUHLAR (Guruh-nomeri)

);

3. Oqituvchilar jadvali:

CREATE TABLE OGUTUVCHILAR (

Oqituvchi-tabel-nomeri VARCHAR (20)

PRIMARY KEY,

Familiya VARCHAR (50),

Ismi VARCHAR (50),  
Sharifi VARCHAR (50),  
Rasroyadi VARCHAR (50),  
Lsh - sejji INT

);

#### 4. FANLAR jadvali

CREATE TABLE FANLAR (

Fan\_kodi VARCHAR (20) PRIMARY KEY,  
Fan\_nomi VARCHAR (200),  
Ajratalqan\_saat INT

);

#### 5. FANLAR\_TAQSIMOTI jadvali

CREATE TABLE FANLAR\_TAQSIMOTI (

Fan\_kodi VARCHAR (20),  
Quruh\_nomeri VARCHAR (20),  
Ogituvchi\_nomeri VARCHAR (20),  
Ogitesh\_tili VARCHAR (200),  
PRIMARY KEY (Fan\_kodi, Quruh\_nomeri, Ogituvchi\_nomeri),  
FOREIGN KEY (Fan\_kodi), Quruh\_nomeri,

(Öğitweli-nomeri),

FOREIGN KEY (fan-kodi) REFERENCES

Fanlar (fan-kodi),

FOREIGN KEY (Guruh-nomeri) REFERENCES

GURUHLAR (Guruh-nomeri),

FOREIGN KEY

(Öğitweli-nomeri) REFERENCES

Öğitweliolar (Öğitweli-tabel-nomeri)

);

6. IMTIHDN-NATIYLARI jadvali

CREATE TABLE IMTIHDN\_NATIYLARI (

Fan-kodi VARCHAR(20),

Öğitweli-tabel-nomeri VARCHAR(20),

Guruh-nomeri VARCHAR(20),

St Talaba-nomeri VARCHAR(20),

Baho INT,

PRIMARY KEY (Fan-kodi) Öğitweli-

-tabel-nomeri, Guruh-nomeri, Talaba-no-  
meri),

FOREIGN KEY (Fan-kodi) REFERENCES

FANLAR (Fan-kodi),

FOREIGN KEY

Öğitteescher - tabel - nomeri) REFERENCES

Öğitteeschibaz (ögiteescher - tabel - nomeri),

FOREIGN KEY (Gereh-nomeri) REFERENCES GURUPLAR (Gereh-nomeri),

FOREIGN KEY (Talaba-nomeri).

REFERENCES TALABALAR (Talaba-nomeri)

),

baohlar,

PRIMARY KEY - jadvaldagı har bir qatorun noyob identifikasiatsiyu qılıcılıcı uestenlerdi.

FOREIGN KEY - boshqa jadvaldagı uesteniga ißhara qılıcılıcı uesten Bu jadvaldar ortasidagi boglegliktiw örnäforde!

VARCHAR (n) - özägecərəhan əzurlıdagı məniçin məlumatlar üçün məlumat təri, n - maksimal uzunlıq.

INT - bəstən sonlu məlumatlar üçün məlumat təri.

4. topshiriq

FROM , WHERE va ORDER BY keltir

fo'xlar ishlatalishi  
student

exam\_st

Id_st	Studentname
1	Rasandov
2	Usarimov
3	Gabborov

id_ex	Subject	Date
1	matematika	10.05.2009
2	fizika	15.05.2009
3	informatika	25.05.2009

mark\_st

id_ex	id_st	mark
2	2	2
3	1.	2
1	1	4
3	2	5
2	1	3
1	2	2
2	3	4
1	3	5
3	3	3

- 1) Barcha studentlar royxatini tanlash va tasvirlash
- 2) <<1>> kodli student 'oqan baho-

har royxatini tanlab olish uchun tos-  
birlash

3) Ekranlarda sahamda birta z yoki  
3 ta boz olegan studentlar kodunu  
loglab olish

①. Javval: student  
listining id , name

SQL sorovni

`SELECT * FROM student;`

Bu sorov student jadvalidagi har  
cha urunini (\*) tanlaydi da  
barcha talabalarini ('student')  
korxatadi.

id-st	surname
1	Rasorov
2	Garirov
3	Gabborov

②. Jadvallar: mark, student, exam, subject

Bu yerda mark jadvali asos bolab  
xizmat qiladi.

exam jadvali orgali qaysi fonda

indikator bolgari aniqlanadi:  
 subject organi fann nomi olindadi.  
 student olan im olindadi.

student name	subject	mark
Kasanov	Matematika	4
Karimov	Fizika	2
Gabborov	Informatika	3.

③ Yaddasab: mark (arosiy)

SQL sozori:

SELECT DISTINCT id\_st

FROM mark

WHERE mark IN (2,3)

mark yaddasidan boshni 2 yoki

3 bolgan satlar tanlanadi.

DISTINCT organi har bir student fagat bir marta korsaliladi!

id_st
1
2
3

Lyo'ni 1, 2, 3 - 10-11 studentlar ka-  
mida bir maske 2 yok 3 olgan