

**BAZE DE DATE**

**SQL**

**-PROIECT-**

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**GRUPA 1050, SERIA C**

# CUPRINS

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## 1.DESCRIEREA PROBLEMEI ECONOMICE

Problema aduce in discutie crearea unei baze de date care sa gestioneze activitatea unei farmacii

Scopul acestui proiect este sa trateze urmatoarele situatii:

- Evidenta medicamentelor dintr-o farmacie;
- Inregistrarea retetelor eliberate;
- Evidenta clientilor care au apelat la aceasta farmacie;

In vederea realizarii celor de mai sus se vor efectua operatii de adaugare, modificare, stergere sau vizualizare in baza de date.

### BAZA DE DATE VA CONTINE:

#### Informatii despre medicamente:

- Codul medicamentului
- Denumirea medicamentului
- Id\_ul producatorului
- Stocul( in ce cantitate se gaseste in farmacie)
- Substanta activa
- Pretul de lista(de cumparare de la producator, in lei)

#### Informatii despre clienti:

- Id-ul clientului
- Numele clientului
- Prenumele clientului

- Data nasterii
- Sexul clientului
- Numarul de telefon
- Email-ul
- Localitatea

### Informatii despre retetele eliberate gratuit:

- Codul retetei
- Id-ul clientului care solicita reteta
- Numele celui care a emis reteta
- Diagnosticul dat clientului
- Data la care s-a eliberat reteta
- Procentul de compensare al retetei

### Informatii despre detaliile privind retetele:

- Codul retetei
- Codul medicamentului
- Doza recomandata(mg)
- Cantitatea cumparata(cutie/flacon)
- Pretul de cumparare(lei)

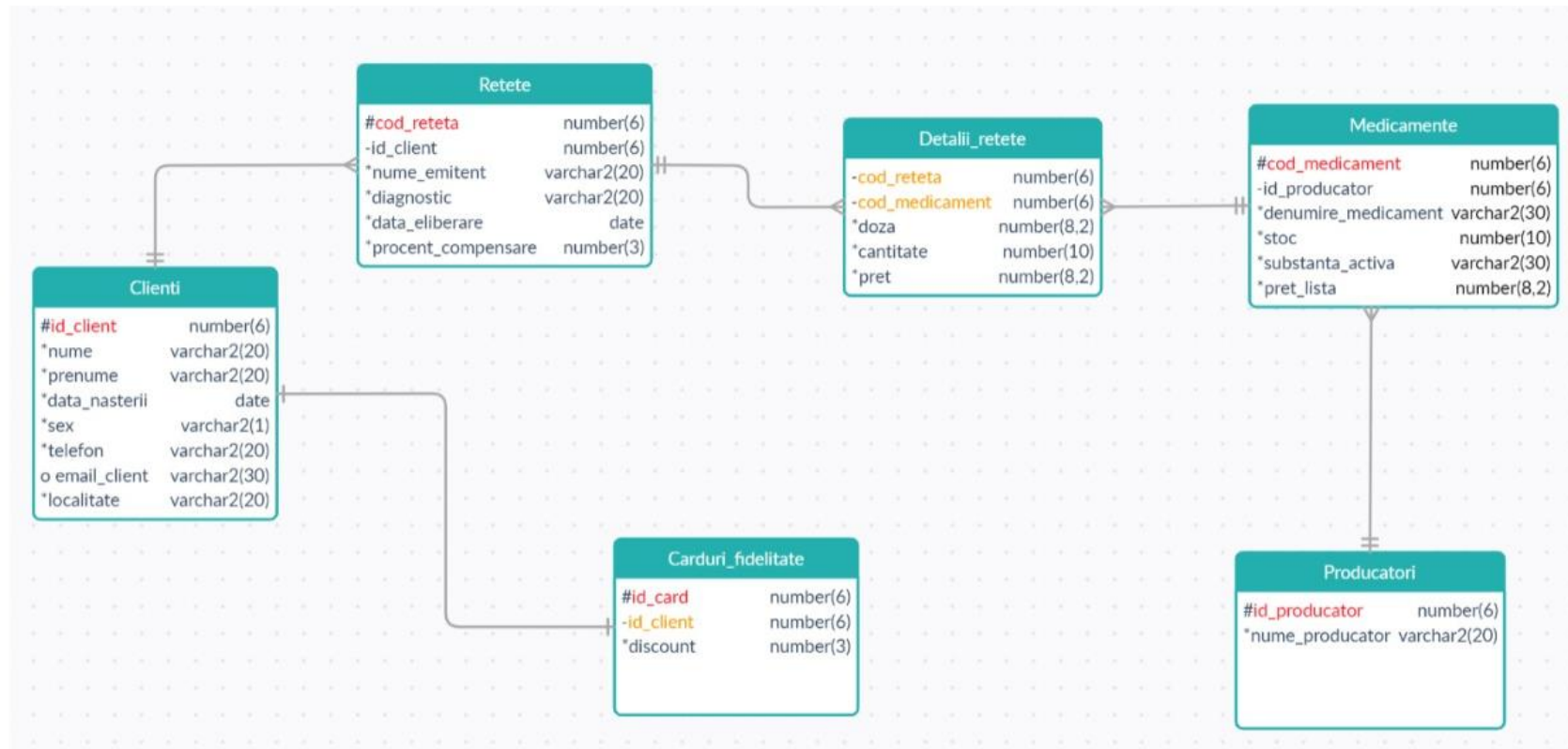
### Informatii despre producatori:

- Id-ul producatorului
- Numele producatorului

### Informatii despre cardurile de fidelitate:

- Id-ul cardului
- Id-ul clientului
- Discount-ul aplicat cu acest card(in procente)

## 2.SCHEMA CONCEPTUALA A BAZEI DE DATE

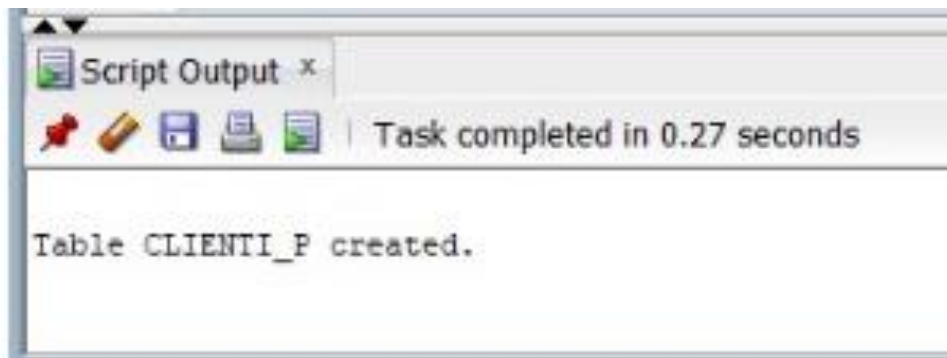


### 3.CREAREA TABELELOR

Tabela clienti\_p:

```
create table clienti_p
(
id_client_p number(6) constraint pk_clienti primary key,
nume_p varchar2(20) constraint nn_nume not null,
prenume_p varchar2(20) constraint nn_prenume not null,
data_nasterii_p date,
sex_p varchar2(1) constraint nn_sex not null,
telefon_p varchar2(20) constraint nn_telefon not null,
email_client_p varchar2(30) constraint uq_email unique
constraint ck_email check(email_client_p like '%@%.%'),
localitate_p varchar2(20) constraint nn_localitate not null
);
```

```
create table clienti_p
(
id_client_p number(6) constraint pk_clienti primary key,
nume_p varchar2(20) constraint nn_nume not null,
prenume_p varchar2(20) constraint nn_prenume not null,
data_nasterii_p date,
sex_p varchar2(1) constraint nn_sex not null,
telefon_p varchar2(20) constraint nn_telefon not null,
email_client_p varchar2(30) constraint uq_email unique
constraint ck_email check(email_client_p like '%@%.%'),
localitate_p varchar2(20) constraint nn_localitate not null
);
```



## Tabela retete\_p:

create table retete\_p

(

cod\_reteta\_p number(6) constraint pk\_retete primary key,

id\_client\_p number(6) constraint fk\_clienti references clienti\_p(id\_client\_p) on delete cascade,

nume\_emitent\_p varchar2(20) constraint nn\_nume\_emitent not null,

diagnostic\_p varchar2(20) constraint nn\_diagnostic not null,

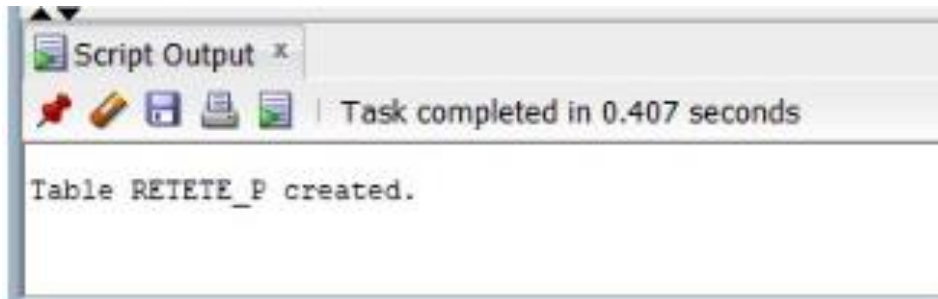
data\_eliberare\_p date,

procent\_compensare\_p number(3) constraint nn\_procent\_compensare not null

);

```
create table retete_p
(
  cod_reteta_p number(6) constraint pk_retete primary key,
  id_client_p number(6) constraint fk_clienti references clienti_p(id_client_p) on delete cascade,
  nume_emitent_p varchar2(20) constraint nn_nume_emitent not null,
  diagnostic_p varchar2(20) constraint nn_diagnostic not null,
  data_eliberare_p date,
  procent_compensare_p number(3) constraint nn_procent_compensare not null
);
```





## Tabela producatori\_p:

create table producatori\_p

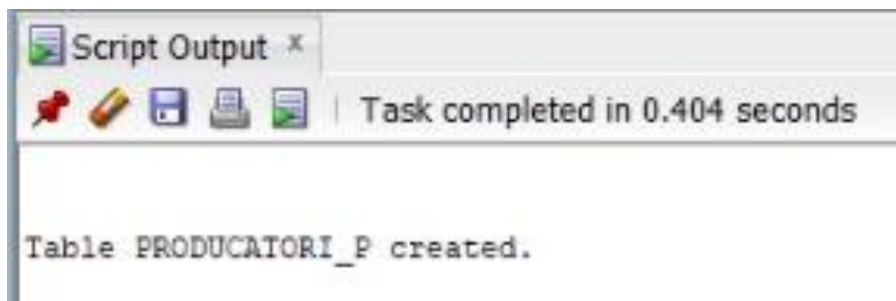
(

id\_producator\_p number(6) constraint pk\_producatori primary key,

nume\_producator\_p varchar2(20) constraint nn\_nume\_producator not null

);

```
create table producatori_p
(
  id_producator_p number(6) constraint pk_producatori primary key,
  nume_producator_p varchar2(20) constraint nn_nume_producator not null
);
```



## Tabela medicamente\_p:

create table medicamente\_p

(

cod\_medicament\_p number(6) constraint pk\_medicamente primary key,

id\_producator\_p number(6) constraint fk\_producatori references producatori\_p(id\_producator\_p)  
on delete cascade,

denumire\_medicament\_p varchar2(30) constraint nn\_medicament not null,

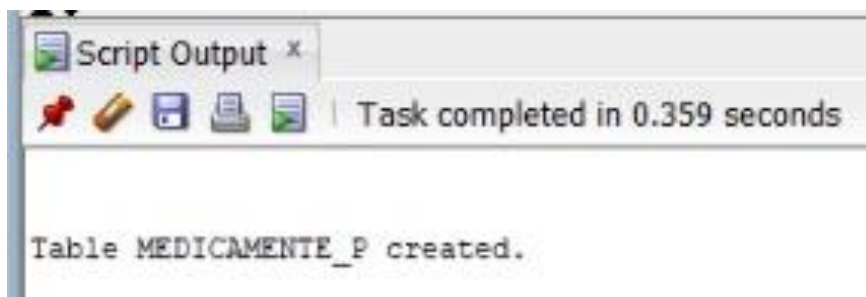
stoc\_p number(10) constraint nn\_stoc not null,

substanta\_activa\_p varchar2(30) constraint nn\_substanta\_activa not null,

pret\_lista\_p number(8,2) constraint nn\_pret\_lista not null

);

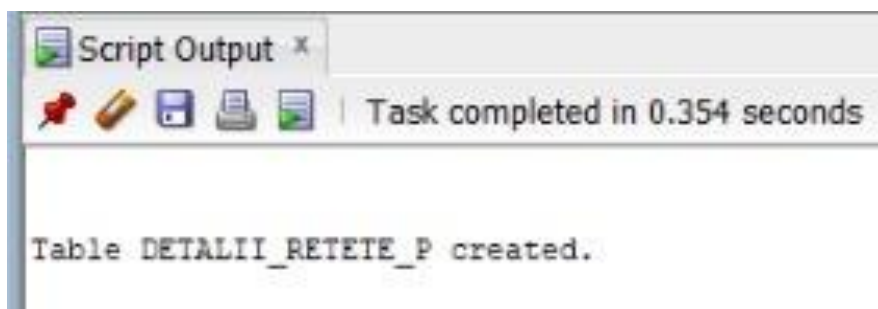
```
create table medicamente_p
(
  cod_medicament_p number(6) constraint pk_medicamente primary key,
  id_producator_p number(6) constraint fk_producatori references producatori_p(id_producator_p) on delete cascade,
  denumire_medicament_p varchar2(30) constraint nn_medicament not null,
  stoc_p number(10) constraint nn_stoc not null,
  substanta_activa_p varchar2(30) constraint nn_substanta_activa not null,
  pret_lista_p number(8,2) constraint nn_pret_lista not null
);
```



## Tabela detalii\_retete\_p:

```
create table detalii_retete_p
(
cod_reteta_p number(6) constraint fk_retete references retete_p(cod_reteta_p) on delete cascade,
cod_medicament_p      number(6)      constraint      fk_medicamente      references
medicamente_p(cod_medicament_p) on delete cascade,
doza_p number(8,2) constraint nn_doza not null,
cantitate_p number(10) constraint nn_cantitate not null,
pret_p number(8,2) constraint nn_pret not null,
constraint pk_detalii primary key(cod_reteta_p, cod_medicament_p)
);
```

```
create table detalii_retete_p
(
cod_reteta_p number(6) constraint fk_retete references retete_p(cod_reteta_p) on delete cascade,
cod_medicament_p number(6) constraint fk_medicamente references medicamente_p(cod_medicament_p) on delete cascade,
doza_p number(8,2) constraint nn_doza not null,
cantitate_p number(10) constraint nn_cantitate not null,
pret_p number(8,2) constraint nn_pret not null,
constraint pk_detalii primary key(cod_reteta_p, cod_medicament_p)
);
```

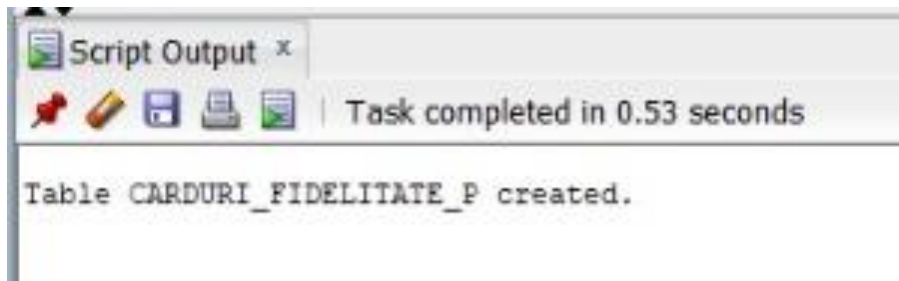



## Tabela carduri\_fidelitate\_p:


```
create table carduri_fidelitate_p
(
id_card_p number(6) constraint pk_carduri_fidelitate primary key,
id_client_p number(6) constraint fk_clienti_1 references clienti_p(id_client_p) on delete cascade,
discount_p number(3) constraint nn_discount not null
);

alter table carduri_fidelitate_p
add constraint uq_id_client unique (id_client_p);
```





```
create table carduri_fidelitate_p
(
id_card_p number(6) constraint pk_carduri_fidelitate primary key,
id_client_p number(6) constraint fk_clienti_1 references clienti_p(id_client_p) on delete cascade,
discount_p number(3) constraint nn_discount not null
);
```



 **APEX**   App Builder ▾   **SQL Workshop** ▾   Team Development ▾   App Gallery ▾

 **SQL Commands**

Language SQL ▾ ?   Rows 10 ▾ ?   Clear Command   Find Tables

          A::

```
1 alter table carduri_fidelitate_p
2 add constraint uq_id_client unique (id_client_p);
```

**Results**

Explain   Describe   Saved SQL   History

Table altered.

0.11 seconds

## 4. POPULAREA TABELELOR

### Tabela clienti\_p:

insert into

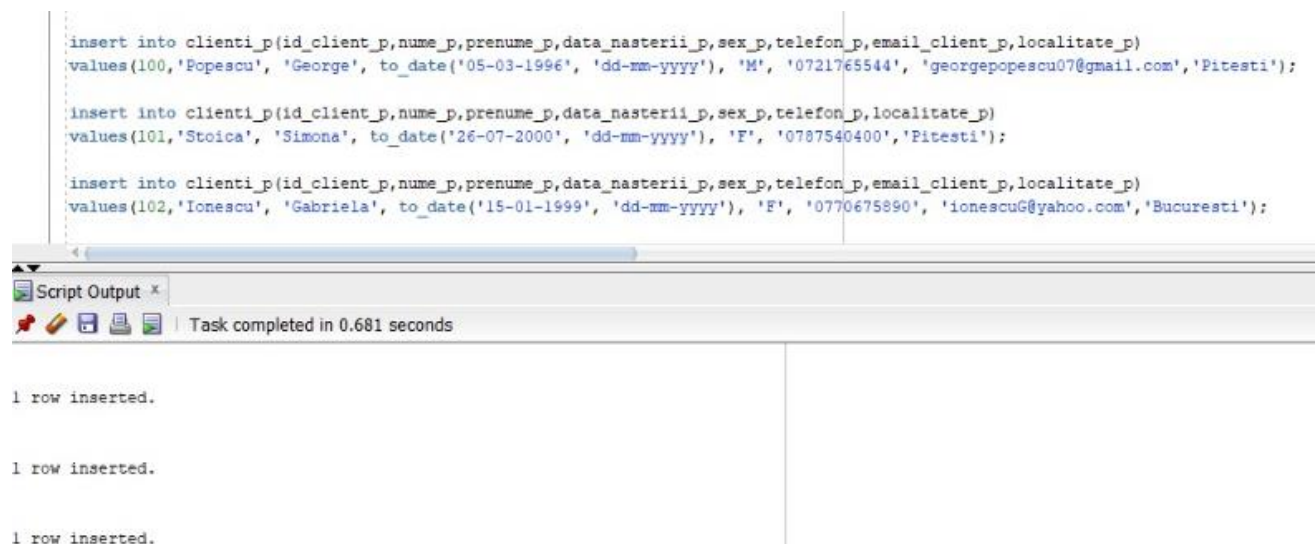
```
clienti_p(id_client_p,nume_p,prenume_p,data_nasterii_p,sex_p,telefon_p,email_client_p,localitate_p) values(100,'Popescu', 'George', to_date('05-03-1996', 'dd-mm-yyyy'), 'M', '0721765544', 'georgepopescu07@gmail.com','Pitesti');
```

insert into

```
clienti_p(id_client_p,nume_p,prenume_p,data_nasterii_p,sex_p,telefon_p,localitate_p) values(101,'Stoica', 'Simona', to_date('26-07-2000', 'dd-mm-yyyy'), 'F', '0787540400','Pitesti');
```

insert into

```
clienti_p(id_client_p,nume_p,prenume_p,data_nasterii_p,sex_p,telefon_p,email_client_p,localitate_p) values(102,'Ionescu', 'Gabriela', to_date('15-01-1999', 'dd-mm-yyyy'), 'F', '0770675890', 'ionescuG@yahoo.com','Bucuresti');
```



```
insert into clienti_p(id_client_p,nume_p,prenume_p,data_nasterii_p,sex_p,telefon_p,email_client_p,localitate_p)
values(100,'Popescu', 'George', to_date('05-03-1996', 'dd-mm-yyyy'), 'M', '0721765544', 'georgepopescu07@gmail.com','Pitesti');

insert into clienti_p(id_client_p,nume_p,prenume_p,data_nasterii_p,sex_p,telefon_p,localitate_p)
values(101,'Stoica', 'Simona', to_date('26-07-2000', 'dd-mm-yyyy'), 'F', '0787540400','Pitesti');

insert into clienti_p(id_client_p,nume_p,prenume_p,data_nasterii_p,sex_p,telefon_p,email_client_p,localitate_p)
values(102,'Ionescu', 'Gabriela', to_date('15-01-1999', 'dd-mm-yyyy'), 'F', '0770675890', 'ionescuG@yahoo.com','Bucuresti');
```

Script Output x

Task completed in 0.681 seconds

```
1 row inserted.

1 row inserted.

1 row inserted.
```

ID_CLIENT_P	NUME_P	PRENUME_P	DATA_NASTERII_P	SEX_P	TELEFON_P	EMAIL_CLIENT_P	LOCALITATE_P
1	100	Popescu George	05-MAR-96	M	0721765544	georgepopescu07@gmail.com	Pitesti
2	101	Stoica Simona	26-JUL-00	F	0787540400	(null)	Pitesti
3	102	Ionescu Gabriela	15-JAN-99	F	0770675890	ionescuG@yahoo.com	Bucuresti

## Tabela retete\_p:

insert into retete\_p(cod\_reteta\_p, id\_client\_p, nume\_emitent\_p,diagnostic\_p,data\_eliberare\_p, procent\_compensare\_p) values(10, 100, 'Badea Ion', 'sinuzita',to\_date('26-07-2020', 'dd-mm-yyyy'), 40);

insert into retete\_p(cod\_reteta\_p, id\_client\_p, nume\_emitent\_p,diagnostic\_p,data\_eliberare\_p, procent\_compensare\_p) values(11, 101, 'Nedelcu Ana', 'diabet',to\_date('06-10-2020', 'dd-mm-yyyy'), 30);

```

insert into retete_p(cod_reteta_p, id_client_p, nume_emitent_p,diagnostic_p,data_eliberare_p, procent_compensare_p)
values(10, 100, 'Badea Ion', 'sinuzita',to_date('26-07-2020', 'dd-mm-yyyy'), 40);

insert into retete_p(cod_reteta_p, id_client_p, nume_emitent_p,diagnostic_p,data_eliberare_p, procent_compensare_p)
values(11, 101, 'Nedelcu Ana', 'diabet',to_date('06-10-2020', 'dd-mm-yyyy'), 30);

```

Script Output x

Task completed in 0.595 seconds

1 row inserted.

1 row inserted.

	COD_RETETA_P	ID_CLIENT_P	NUME_EMITENT_P	DIAGNOSTIC_P	DATA_ELIBERARE_P	PROCENT_COMPENSARE_P
1	10	100	Badea Ion	sinuzita	26-JUL-20	40
2	11	101	Nedelcu Ana	diabet	06-OCT-20	30

## Tabela producatori\_p:

insert into producatori\_p(id\_producator\_p, nume\_producator\_p) values(20, 'Pharma SRL');

insert into producatori\_p(id\_producator\_p, nume\_producator\_p) values(21, 'Medicine SA');

insert into producatori\_p(id\_producator\_p, nume\_producator\_p) values(22, 'Farmaceutic SRL');

```

insert into producatori_p(id_producator_p, nume_producator_p)
values(20, 'Pharma SRL');

insert into producatori_p(id_producator_p, nume_producator_p)
values(21, 'Medicine SA');

insert into producatori_p(id_producator_p, nume_producator_p)
values(22, 'Farmaceutic SRL');

```

Script Output x

Task completed in 1.031 seconds

1 row inserted.

1 row inserted.

1 row inserted.



	ID_PRODUCATOR_P	NUME_PRODUCATOR_P
1	20	Pharma SRL
2	21	Medicine SA
3	22	Farmaceutic SRL

## Tabela medicamente\_p:

```
insert into medicamente_p(cod_medicament_p, id_producator_p, denumire_medicament_p,
stoc_p, substanta_activa_p, pret_lista_p) values(50, 20, 'Sinosun', 105, 'N-acetilcisteina', 50);
```

```
insert into medicamente_p(cod_medicament_p, id_producator_p, denumire_medicament_p,
stoc_p, substanta_activa_p, pret_lista_p) values(51, 22, 'Diabetyn', 99, 'Schinduf',35.6 );
```

```
insert into medicamente_p(cod_medicament_p, id_producator_p, denumire_medicament_p,
stoc_p, substanta_activa_p, pret_lista_p) values(52, 21, 'Augumentin', 200, 'Amoxicilina',43 );
```

```
insert into medicamente_p(cod_medicament_p, id_producator_p, denumire_medicament_p, stoc_p, substanta_activa_p, pret_lista_p)
values(50, 20, 'Sinosun', 105, 'N-acetilcisteina', 50);

insert into medicamente_p(cod_medicament_p, id_producator_p, denumire_medicament_p, stoc_p, substanta_activa_p, pret_lista_p)
values(51, 22, 'Diabetyn', 99, 'Schinduf',35.6 );

insert into medicamente_p(cod_medicament_p, id_producator_p, denumire_medicament_p, stoc_p, substanta_activa_p, pret_lista_p)
values(52, 21, 'Augumentin', 200, 'Amoxicilina',43 );
```

Script Output x

Task completed in 0.793 seconds

```
1 row inserted.

1 row inserted.

1 row inserted.
```

	COD_MEDICAMENT_P	ID_PRODUCATOR_P	DENUMIRE_MEDICAMENT_P	STOC_P	SUBSTANTA_ACTIVA_P	PRET_LISTA_P
1	50	20	Sinosun	105	N-acetilcisteina	50
2	51	22	Diabetyn	99	Schinduf	35.6
3	52	21	Augumentin	200	Amoxicilina	43

## Tabela detalii\_retete\_p:

insert into detalii\_retete\_p(cod\_reteta\_p, cod\_medicament\_p, doza\_p,cantitate\_p,pret\_p)  
values(10, 50,20.1 ,1, 55);

insert into detalii\_retete\_p(cod\_reteta\_p, cod\_medicament\_p, doza\_p,cantitate\_p,pret\_p)  
values(11, 51, 14.3,2, 40.1);

```

insert into detalii_retete_p(cod_reteta_p, cod_medicament_p, doza_p,cantitate_p,pret_p)
values(10, 50,20.1 ,1, 55);

insert into detalii_retete_p(cod_reteta_p, cod_medicament_p, doza_p,cantitate_p,pret_p)
values(11, 51, 14.3,2, 40.1);

```

Script Output x

Task completed in 0.573 seconds

1 row inserted.

1 row inserted.

	COD_RETETA_P	COD_MEDICAMENT_P	DOZA_P	CANTITATE_P	PRET_P
1	10	50	20.1	1	55
2	11	51	14.3	2	40.1

## Tabela carduri\_fidelitate\_p:

insert into carduri\_fidelitate\_p(id\_card\_p, id\_client\_p, discount\_p) values(1, 100, 20);

insert into carduri\_fidelitate\_p(id\_card\_p, id\_client\_p, discount\_p) values(2, 101, 30);

insert into carduri\_fidelitate\_p(id\_card\_p, id\_client\_p, discount\_p) values(3, 102, 10);

```
insert into carduri_fidelitate_p(id_card_p, id_client_p, discount_p)
values(1, 100, 20);

insert into carduri_fidelitate_p(id_card_p, id_client_p, discount_p)
values(2, 101, 30);

insert into carduri_fidelitate_p(id_card_p, id_client_p, discount_p)
values(3, 102, 10);
```

Script Output x

Task completed in 1.077 seconds

1 row inserted.

1 row inserted.

1 row inserted.

ID_CARD_P	ID_CLIENT_P	DISCOUNT_P
1	100	20
2	101	30
3	102	10

## 5.COMENZI DE ACTUALIZARE

min. 5 operații de actualizare pe BD de la proiect

--1 sa se stearga producatorul cu id-ul 27

```
delete from producatori_p
```

```
where id_producator_p=27;
```

The screenshot displays the APEX SQL Workshop interface. At the top, there are navigation tabs: APEX, App Builder, SQL Workshop (selected), Team Development, and App Gallery. Below the tabs, the 'SQL Commands' section is active, showing a list of commands. The first command is a DELETE statement: `delete from producatori_p where id_producator_p=27;`. The command is executed, and the 'Results' tab is selected, showing the output: '1 row(s) deleted.' and '0.03 seconds'.

APEX App Builder SQL Workshop Team Development App Gallery

SQL Commands

Language SQL Rows 10 Clear Command Find Tables

```
1 delete from producatori_p
2 where id_producator_p=27;
```

Results Explain Describe Saved SQL History

1 row(s) deleted.

0.03 seconds

--2 sa se modifice numarul de telefon al clientului Bratu Vasile cu 0743768976

```
update clienti_p
```

```
set telefon_p='0743768976'
```

```
where nume_p='Bratu' and prenume_p='Vasile';
```

The screenshot displays the APEX SQL Workshop interface. At the top, the navigation bar includes the APEX logo and links to App Builder, SQL Workshop (selected), Team Development, and App Gallery. Below this, the 'SQL Commands' section is active, showing a command editor with the following SQL statement:

```
1 update clienti_p
2 set telefon_p='0743768976'
3 where nume_p='Bratu' and prenume_p='Vasile';
```

Below the editor, the 'Results' tab is selected, showing the execution outcome: '1 row(s) updated.' and a duration of '0.04 seconds'. Other tabs like 'Explain', 'Describe', 'Saved SQL', and 'History' are also visible.

--3 sa se mareasca discount-ul cu 5 procente al cardului cu id\_card = 2

```
update carduri_fidelitate_p  
set discount_p=discount_p+5  
where id_card_p=2;
```

The screenshot displays the APEX SQL Workshop interface. At the top, there is a navigation bar with the APEX logo and links to App Builder, SQL Workshop (selected), Team Development, and App Gallery. Below this is a section for SQL Commands, featuring a language dropdown set to SQL, a rows limit of 10, and buttons for Clear Command and Find Tables. The main area contains an SQL editor with the following command:

```
1 update carduri_fidelitate_p  
2 set discount_p=discount_p+5  
3 where id_card_p=2;
```

Below the editor, there are tabs for Results, Explain, Describe, Saved SQL, and History. The Results tab is active, showing the output: "1 row(s) updated." and the execution time: "0.02 seconds".

--4 sa se micsoreze stocul medicamentului Sinosun cu 10

update medicamente\_p

set stoc\_p=stoc\_p-10

where denumire\_medicament\_p='Sinosun';

The screenshot displays the APEX SQL Workshop interface. At the top, the navigation bar includes the APEX logo, 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this, the 'SQL Commands' section is active, showing a list of commands. The first command is an SQL update statement: `update medicamente_p`, `set stoc_p=stoc_p-10`, and `where denumire_medicament_p='Sinosun';`. The interface also shows a 'Language' dropdown set to 'SQL', a 'Rows' dropdown set to '10', and buttons for 'Clear Command' and 'Find Tables'. Below the command list, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is selected, showing the output: '1 row(s) updated.' and '0.02 seconds'.

**APEX** App Builder **SQL Workshop** Team Development App Gallery

SQL Commands

Language SQL Rows 10 Clear Command Find Tables

```
1 update medicamente_p
2 set stoc_p=stoc_p-10
3 where denumire_medicament_p='Sinosun';
```

**Results** Explain Describe Saved SQL History

1 row(s) updated.

0.02 seconds

--5 sa se stearga reteta cu codul 15

```
delete from retete_p
```

```
where cod_reteta_p=15;
```

The screenshot displays the APEX SQL Workshop interface. At the top, the navigation bar includes the APEX logo and links to App Builder, SQL Workshop (selected), Team Development, and App Gallery. Below this, the 'SQL Commands' section is active, showing a language dropdown set to 'SQL' and a 'Rows' limit of 10. The SQL command editor contains two lines of code: '1 delete from retete\_p' and '2 where cod\_reteta\_p=15;'. Below the editor, the 'Results' tab is selected, displaying the message '1 row(s) deleted.' and the execution time '0.02 seconds'. Other tabs like 'Explain', 'Describe', 'Saved SQL', and 'History' are also visible.

**APEX** App Builder SQL Workshop Team Development App Gallery

SQL Commands

Language SQL Rows 10 Clear Command Find Tables

```
1 delete from retete_p
2 where cod_reteta_p=15;
```

**Results** Explain Describe Saved SQL History

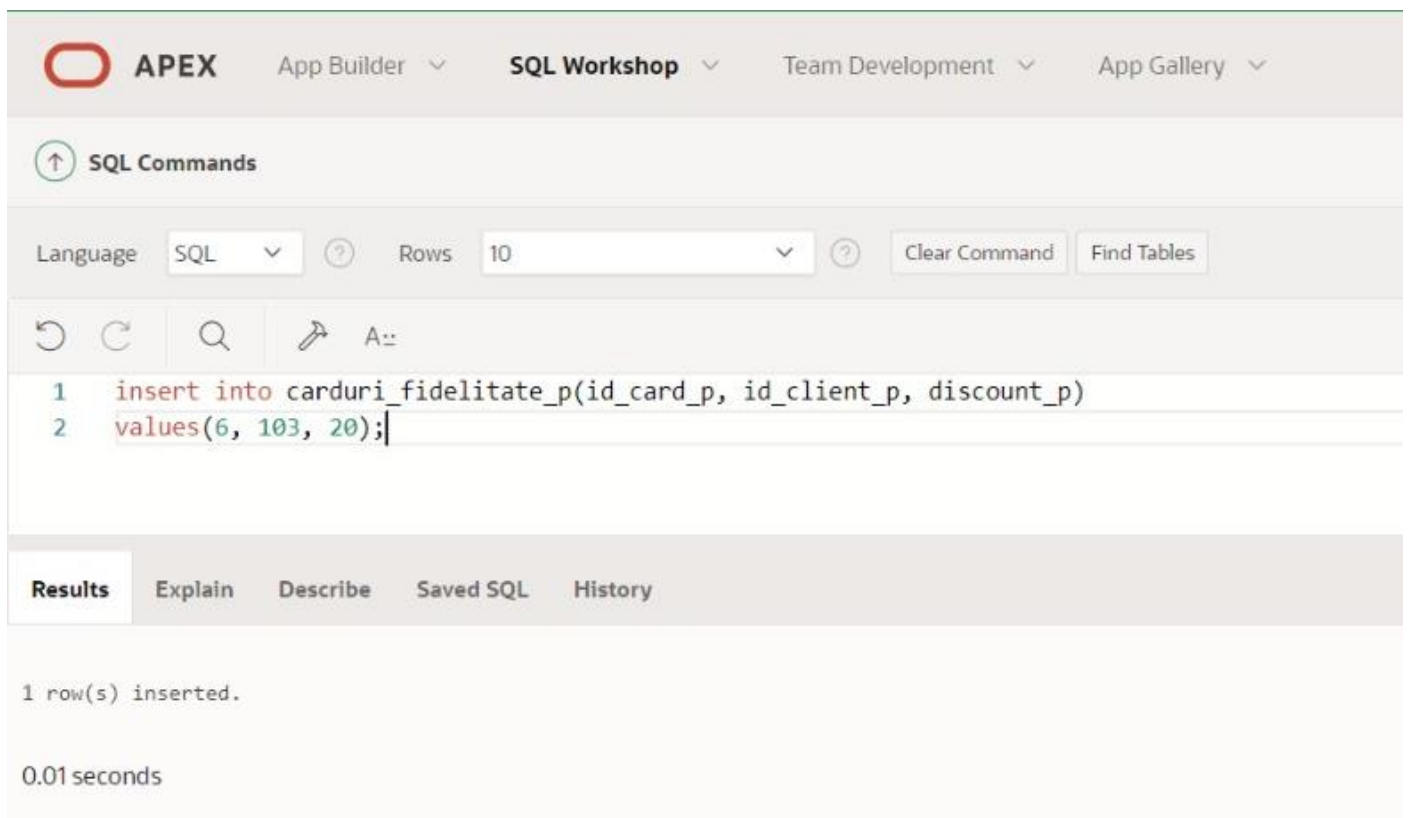
1 row(s) deleted.

0.02 seconds



--6 sa se insereze in tabela carduri\_fidelitate un card cu id\_card 6, id\_client 103 si discount 20

```
insert into carduri_fidelitate_p(id_card_p, id_client_p, discount_p)
values(6, 103, 20);
```



The screenshot displays the APEX SQL Workshop interface. At the top, there is a navigation bar with the APEX logo and links to App Builder, SQL Workshop (selected), Team Development, and App Gallery. Below this is a section for SQL Commands, featuring a language dropdown set to SQL, a rows limit of 10, and buttons for Clear Command and Find Tables. The main area contains an SQL editor with the following code:

```
1 insert into carduri_fidelitate_p(id_card_p, id_client_p, discount_p)
2 values(6, 103, 20);
```

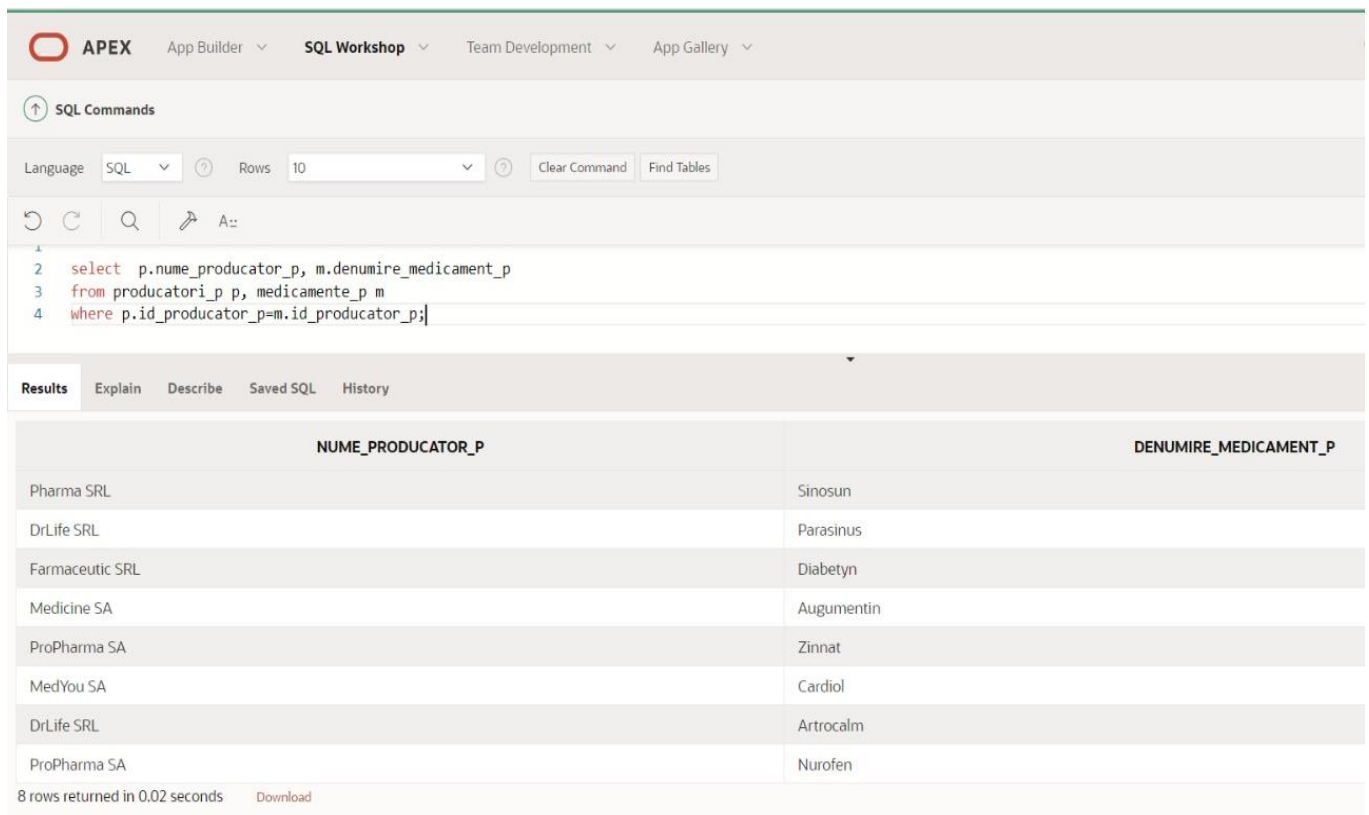
Below the editor, there are tabs for Results, Explain, Describe, Saved SQL, and History. The Results tab is active, showing the output: "1 row(s) inserted." and the execution time: "0.01 seconds".

## 6.INTEROGĂRI CU GRUPĂRI ȘI JONCTIUNI

**min. 5 interogări pe BD de la proiect (cu joncțiuni și grupări)**

--1 sa se afiseze numele producatorilor si numele medicamentelor cu care a fost aprovizionata farmacia

```
select p.num_e_producator_p, m.denumire_medicament_p
from producatori_p p, medicamente_p m
where p.id_producator_p=m.id_producator_p;
```



The screenshot shows the APEX SQL Workshop interface. The SQL command entered is:

```
1
2 select p.num_e_producator_p, m.denumire_medicament_p
3 from producatori_p p, medicamente_p m
4 where p.id_producator_p=m.id_producator_p;
```

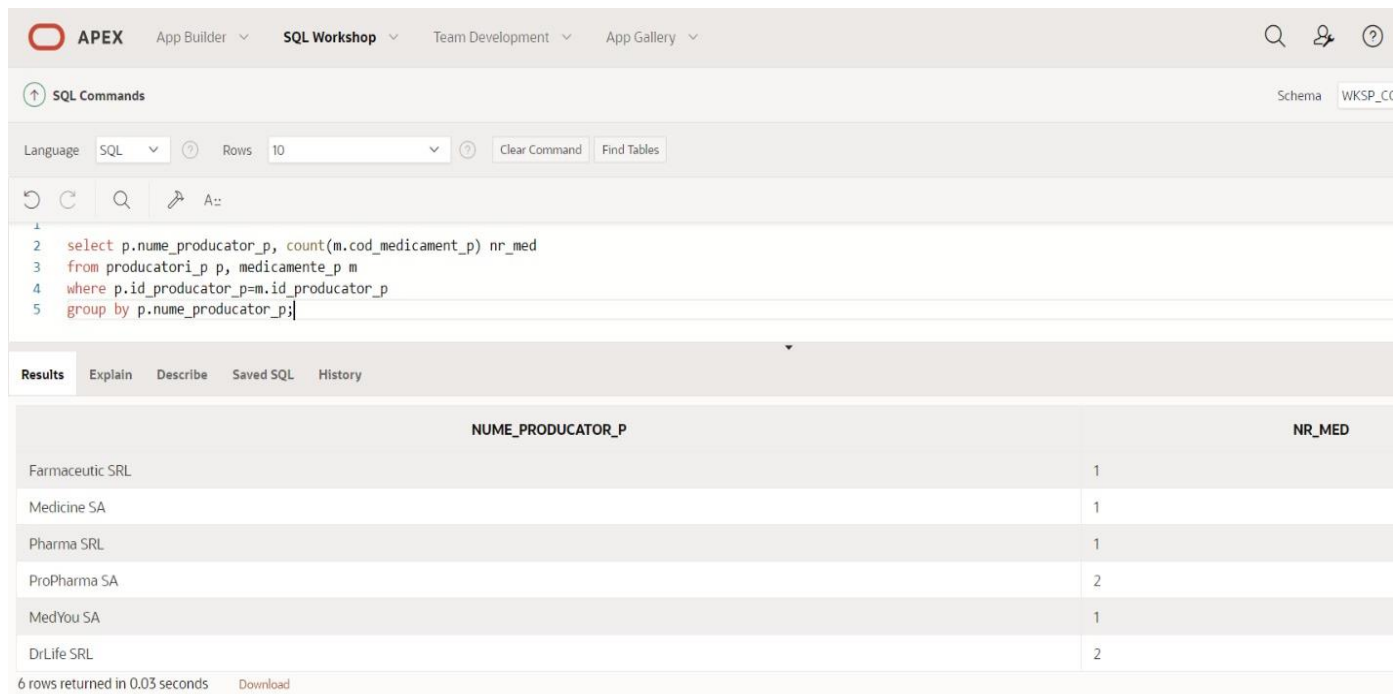
The results are displayed in a table with two columns: NUME\_PRODUCATOR\_P and DENUMIRE\_MEDICAMENT\_P. The table contains 8 rows of data.

NUME_PRODUCATOR_P	DENUMIRE_MEDICAMENT_P
Pharma SRL	Sinosun
DrLife SRL	Parasinus
Farmaceutic SRL	Diabetyn
Medicine SA	Augumentin
ProPharma SA	Zinnat
MedYou SA	Cardiol
DrLife SRL	Artrocalm
ProPharma SA	Nurofen

8 rows returned in 0.02 seconds [Download](#)

--2 sa se afiseze numele producatorului si numarul de medicamente(distincte) cu care a aprovizionat farmacia

```
select p.nume_producator_p, count(m.cod_medicament_p) nr_med
from producatori_p p, medicamente_p m
where p.id_producator_p=m.id_producator_p
group by p.nume_producator_p;
```



The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this is a 'SQL Commands' section with a 'Schema' dropdown set to 'WKSP\_CC'. The 'Language' is set to 'SQL' and 'Rows' to '10'. The query editor contains the following SQL code:

```
1
2 select p.nume_producator_p, count(m.cod_medicament_p) nr_med
3 from producatori_p p, medicamente_p m
4 where p.id_producator_p=m.id_producator_p
5 group by p.nume_producator_p;
```

Below the query editor, the 'Results' tab is active, showing a table with two columns: 'NUME\_PRODUCATOR\_P' and 'NR\_MED'. The table contains six rows of data:

NUME_PRODUCATOR_P	NR_MED
Farmaceutic SRL	1
Medicine SA	1
Pharma SRL	1
ProPharma SA	2
MedYou SA	1
DrLife SRL	2

At the bottom, it states '6 rows returned in 0.03 seconds' and provides a 'Download' link.

--3 sa se afiseze numele si prenumele clientului, diagnosticul dat, denumirea medicamentului prescris, precum si doza acestuia intr-un mesaj corespunzator

```
select 'Clientul ' || c.num_p || ' ' || c.preume_p || ' are diagnosticul: ' || r.diagnostic_p ||  
      ' si este prescris medicamentul: ' || m.denumire_medicament_p || ' in doza de ' ||  
dr.doza_p || ' mg.'  
  
from clienti_p c, retete_p r, medicamente_p m, detalii_retete_p dr  
  
where c.id_client_p=r.id_client_p and r.cod_reteta_p=dr.cod_reteta_p and  
dr.cod_medicament_p=m.cod_medicament_p;
```

The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this is a 'SQL Commands' section with a 'Schema' dropdown set to 'WKSP\_COR'. The main area contains a SQL query with line numbers 1 through 5. Below the query, there's a 'Results' tab with sub-tabs 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, showing a table with one row of data. The data is formatted as a single string: 'CLIENTUL||C.NUM\_P||C.PREUME\_P||AREDIAGNOSTICUL:||R.DIAGNOSTIC\_P||SIESTEPRESCRISMEDICAMENTUL:||M.DENUMIRE\_MEDICAMENT\_P||INDOZADE||DR.DOZA\_P||MG.'. Below this, the results are displayed in a human-readable format, showing four rows of client information and their prescribed medication.

```
1  
2 select 'Clientul ' || c.num_p || ' ' || c.preume_p || ' are diagnosticul: ' || r.diagnostic_p ||  
3      ' si este prescris medicamentul: ' || m.denumire_medicament_p || ' in doza de ' || dr.doza_p || ' mg.'  
4 from clienti_p c, retete_p r, medicamente_p m, detalii_retete_p dr  
5 where c.id_client_p=r.id_client_p and r.cod_reteta_p=dr.cod_reteta_p and dr.cod_medicament_p=m.cod_medicament_p;
```

**Results** Explain Describe Saved SQL History

'CLIENTUL  C.NUM_P  C.PREUME_P  AREDIAGNOSTICUL:  R.DIAGNOSTIC_P  SIESTEPRESCRISMEDICAMENTUL:  M.DENUMIRE_MEDICAMENT_P  INDOZADE  DR.DOZA_P  MG.'
Clientul Popescu George are diagnosticul: sinuzita si este prescris medicamentul: Sinosun in doza de 20.1 mg.
Clientul Stoica Simona are diagnosticul: diabet si este prescris medicamentul: Diabetyn in doza de 14.3 mg.
Clientul Cojocar Maria are diagnosticul: hipertensiune si este prescris medicamentul: Cardiol in doza de 56 mg.
Clientul Bratu Vasile are diagnosticul: reumatism si este prescris medicamentul: Artrocalm in doza de 19 mg.

4 rows returned in 0.02 seconds [Download](#)

--4 sa se afiseze id\_clientului, codul retetei,sexul clientului si procentul de compensare marit astfel:

daca clientul este de sex feminin procentul creste cu 10%

altfel cu 5%(barbat)

```
select c.id_client_p, r.cod_reteta_p ,c.sex_p, case
when c.sex_p='F' then r.procent_compensare_p*1.1
else r.procent_compensare_p*1.05
end procent_compensare_nou
from clienti_p c, retete_p r
where c.id_client_p=r.id_client_p;
```

The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this is a 'SQL Commands' section with a search icon and a 'Schema' dropdown. The main area contains a SQL query editor with the following code:

```
1 select c.id_client_p, r.cod_reteta_p ,c.sex_p, case
2 when c.sex_p='F' then r.procent_compensare_p*1.1
3 else r.procent_compensare_p*1.05
4 end procent_compensare_nou
5 from clienti_p c, retete_p r
6 where c.id_client_p=r.id_client_p;
```

Below the query editor is a 'Results' section with tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, displaying a table with 5 rows and 4 columns: ID\_CLIENT\_P, COD\_RETETA\_P, SEX\_P, and PROCENT\_COMPENSARE\_NOU.

ID_CLIENT_P	COD_RETETA_P	SEX_P	PROCENT_COMPENSARE_NOU
101	11	F	33
103	12	F	22
100	10	M	42
105	14	M	36.75
104	13	M	52.5

At the bottom of the results section, it says '5 rows returned in 0.01 seconds' and there is a 'Download' button.

--5 sa se afiseze denumirea si doza pentru medicamentul cu denumirea 'Sinosun'

```
select m.denumire_medicament_p, dr.doza_p
from medicamente_p m, detalii_retete_p dr
where m.cod_medicament_p=dr.cod_medicament_p and
m.denumire_medicament_p='Sinosun';
```

The screenshot displays the APEX SQL Workshop interface. At the top, the navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The 'SQL Commands' tab is active, showing a query with three lines: a SELECT statement for 'm.denumire\_medicament\_p' and 'dr.doza\_p', a FROM clause for 'medicamente\_p m' and 'detalii\_retete\_p dr', and a WHERE clause filtering for 'Sinosun'. Below the editor, the 'Results' tab is selected, showing a table with two columns: 'DENUMIRE\_MEDICAMENT\_P' and 'DOZA\_P'. The table contains one row with the values 'Sinosun' and '20.1'. At the bottom, a status bar indicates '1 rows returned in 0.04 seconds' and provides a 'Download' link.

DENUMIRE_MEDICAMENT_P	DOZA_P
Sinosun	20.1

1 rows returned in 0.04 seconds [Download](#)

--6 Sa se afiseze id-ul, numele si prenumele clientilor care nu au carduri de fidelitate

```
select c.id_client_p, c.num_p, c.prenume_p
from clienti_p c,carduri_fidelitate_p f
where c.id_client_p=f.id_client_p(+)
minus
select c.id_client_p, c.num_p, c.prenume_p
from clienti_p c,carduri_fidelitate_p f
where c.id_client_p=f.id_client_p;
```

The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this is a 'SQL Commands' section with a search icon, a 'Schema' dropdown set to 'WKSP\_CORBUI', and a 'Language' dropdown set to 'SQL'. The main area contains a SQL query with line numbers 1 through 9. The query is a set difference query using the 'minus' operator to find clients who do not have a loyalty card. Below the query, there's a 'Results' tab selected, showing a table with 4 rows and 3 columns: 'ID\_CLIENT\_P', 'NUM\_P', and 'PRENUME\_P'. The results are as follows:

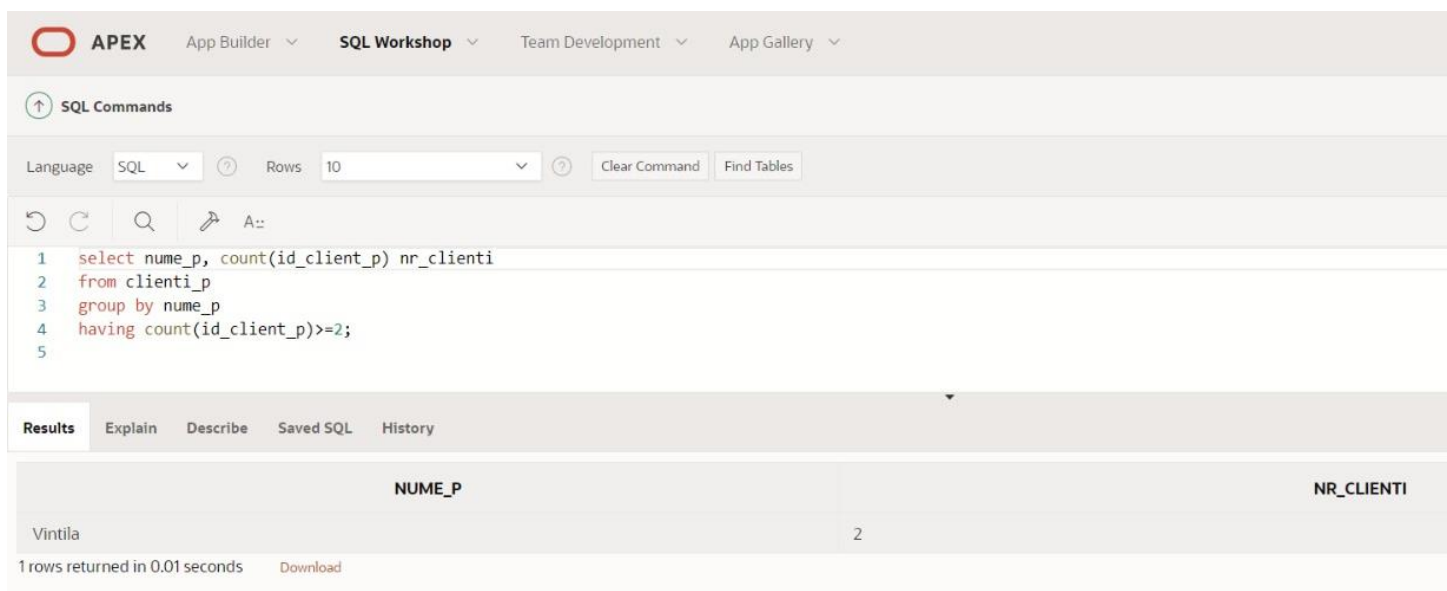
ID_CLIENT_P	NUM_P	PRENUME_P
106	Vintila	Ana
107	Popescu	Andrei
108	Apostol	Ana
109	Barbu	Costi

At the bottom of the results section, it says '4 rows returned in 0.03 seconds' and there is a 'Download' link.

### min. 3 interogări cu grupări diverse

--1 sa se afiseze numele si numarul de clienti cu acelasi nume daca acesta este mai mare sau egal cu 2

```
select nume_p, count(id_client_p) nr_clienti
from clienti_p
group by nume_p
having count(id_client_p)>=2;
```



The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes the APEX logo and links to App Builder, SQL Workshop, Team Development, and App Gallery. The main area is titled "SQL Commands" and contains a query editor with the following SQL code:

```
1 select nume_p, count(id_client_p) nr_clienti
2 from clienti_p
3 group by nume_p
4 having count(id_client_p)>=2;
5
```

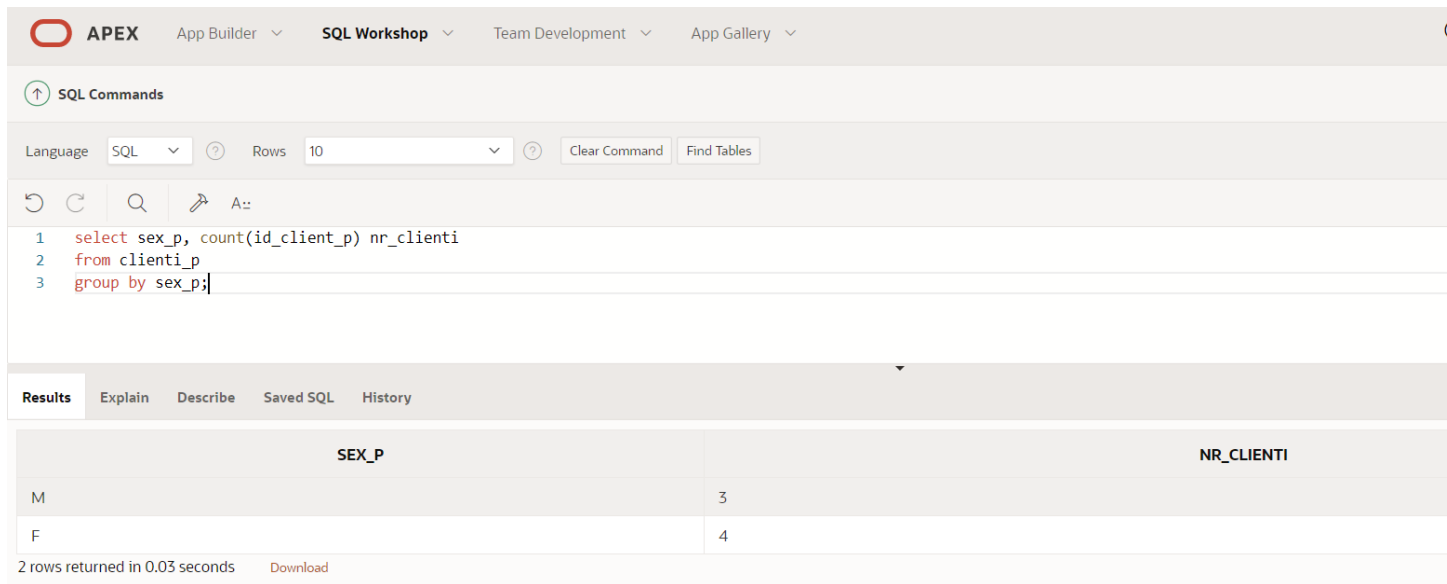
Below the query editor, the "Results" tab is active, displaying a table with two columns: "NUME\_P" and "NR\_CLIENTI". The table contains one row with the values "Vintila" and "2". At the bottom, a status bar indicates "1 rows returned in 0.01 seconds" and provides a "Download" link.

NUME_P	NR_CLIENTI
Vintila	2



--2 sa se afiseze numarul de clienti in functie de sex

```
select sex_p, count(id_client_p) nr_clienti  
from clienti_p  
group by sex_p;
```



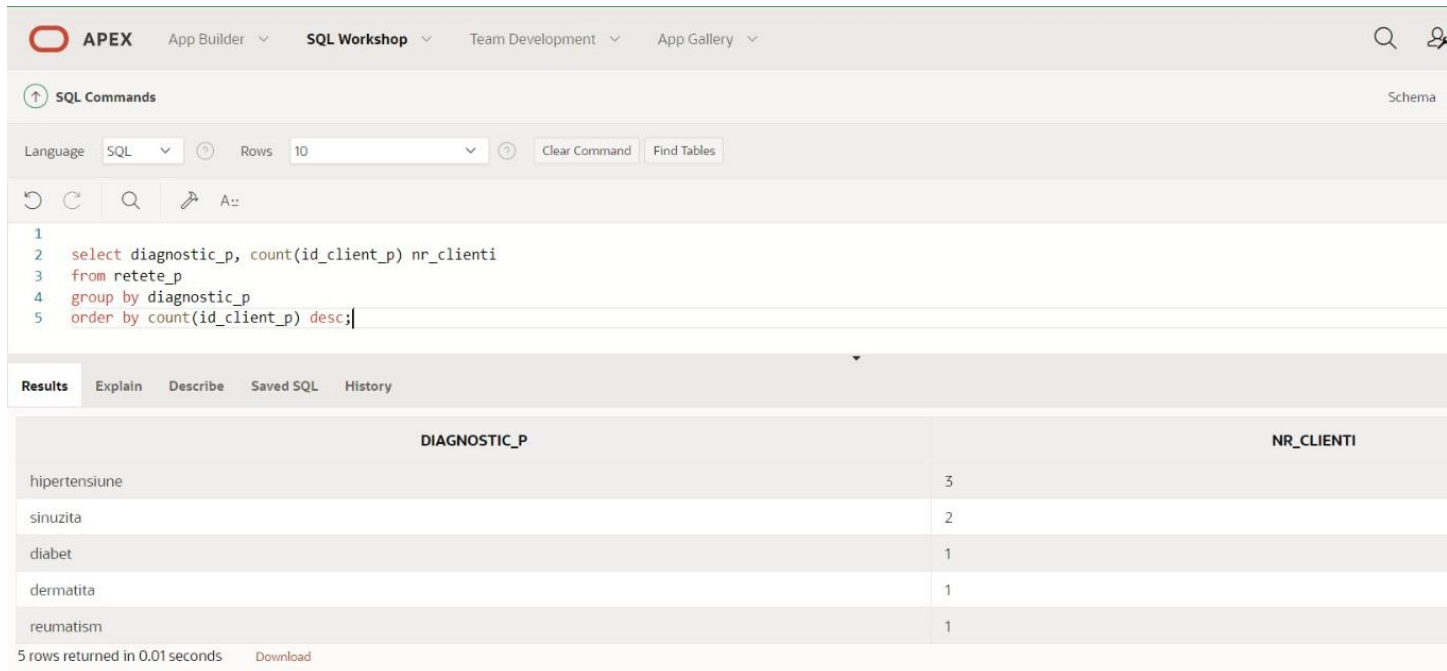
The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this, the 'SQL Commands' section is active, showing a SQL query in a text editor. The query is:   
1 select sex\_p, count(id\_client\_p) nr\_clienti  
2 from clienti\_p  
3 group by sex\_p;  
Below the editor, there's a 'Results' tab selected, displaying a table with two columns: 'SEX\_P' and 'NR\_CLIENTI'. The table has two rows: 'M' with '3' and 'F' with '4'. At the bottom, it says '2 rows returned in 0.03 seconds' and has a 'Download' link.

SEX_P	NR_CLIENTI
M	3
F	4

2 rows returned in 0.03 seconds [Download](#)

--3 sa se afiseze numarul de clienti in ordine descrescatoare in functie de diagnosticul dat

```
select diagnostic_p, count(id_client_p)
from retete_p
group by diagnostic_p
order by count(id_client_p) desc;
```

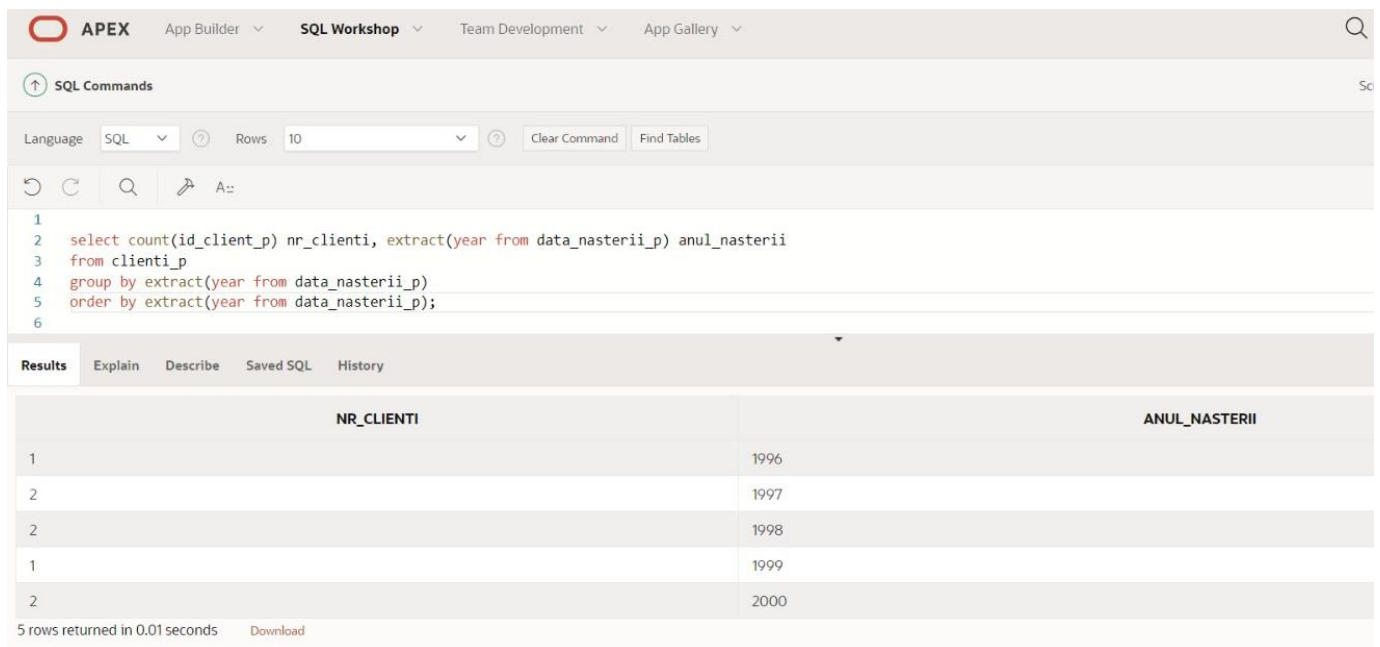


The screenshot displays the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX' and several dropdown menus: 'App Builder', 'SQL Workshop' (selected), 'Team Development', and 'App Gallery'. Below this is a 'SQL Commands' section with a search icon and a 'Schema' link. The main area shows a SQL query in a text editor with line numbers 1 to 5. The query is:   
1 select diagnostic\_p, count(id\_client\_p) nr\_clienti  
2 from retete\_p  
3 group by diagnostic\_p  
4 order by count(id\_client\_p) desc;  
5  
Below the editor, there's a 'Results' tab selected, showing a table with two columns: 'DIAGNOSTIC\_P' and 'NR\_CLIENTI'. The table contains five rows of data. At the bottom, it states '5 rows returned in 0.01 seconds' and has a 'Download' link.

DIAGNOSTIC_P	NR_CLIENTI
hipertensiune	3
sinuzita	2
diabet	1
dermatita	1
reumatism	1

--4 sa se afiseze numarul de clienti in functie de anul nasterii, in ordinea crescatoare a anului

```
select count(id_client_p) nr_clienti, extract(year from data_nasterii_p) anul_nasterii
from clienti_p
group by extract(year from data_nasterii_p)
order by extract(year from data_nasterii_p);
```



The screenshot shows the APEX SQL Workshop interface. At the top, there are tabs for 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below the tabs, there's a search bar and a 'SQL Commands' section. The 'SQL Commands' section has a 'Language' dropdown set to 'SQL', a 'Rows' dropdown set to '10', and buttons for 'Clear Command' and 'Find Tables'. Below this, there's a toolbar with icons for undo, redo, search, and a 'A-z' button. The main area displays a SQL query:

```
1
2 select count(id_client_p) nr_clienti, extract(year from data_nasterii_p) anul_nasterii
3 from clienti_p
4 group by extract(year from data_nasterii_p)
5 order by extract(year from data_nasterii_p);
6
```

Below the query, there's a 'Results' tab with sub-tabs for 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, showing a table with two columns: 'NR\_CLIENTI' and 'ANUL\_NASTERII'. The table contains 5 rows of data:

NR_CLIENTI	ANUL_NASTERII
1	1996
2	1997
2	1998
1	1999
2	2000

At the bottom, it says '5 rows returned in 0.01 seconds' and there's a 'Download' button.

## 7.INTEROGARI CU SUBCERERI

### min. 5 interogări cu subcereri

--1 sa se afiseze discount-ul de pe card, numele si prenumele clientului care are pe card un discount mai mare decat media generala a discount-urilor

```
select cf.discount_p, c.num_p, c.prenume_p
```

```
from clienti_p c, carduri_fidelitate_p cf
```

```
where c.id_client_p=cf.id_client_p and cf.discount_p>(select avg(discount_p) from carduri_fidelitate_p);
```

The screenshot shows the APEX SQL Workshop interface. At the top, there are navigation tabs: APEX, App Builder, SQL Workshop (selected), Team Development, and App Gallery. Below the tabs, there's a section for SQL Commands with a search icon and a 'Schema' link. The main area contains a query editor with the following SQL code:

```
1 select cf.discount_p, c.num_p, c.prenume_p
2 from clienti_p c, carduri_fidelitate_p cf
3 where c.id_client_p=cf.id_client_p and cf.discount_p>(select avg(discount_p) from carduri_fidelitate_p);
```

Below the query editor, there's a 'Results' tab with sub-tabs: Results, Explain, Describe, Saved SQL, and History. The 'Results' tab is active, showing a table with three columns: DISCOUNT\_P, NUME\_P, and PRENUME\_P. The table contains two rows of data:

DISCOUNT_P	NUME_P	PRENUME_P
35	Stoica	Simona
25	Vintila	Aurel

At the bottom of the results section, it says '2 rows returned in 0.03 seconds' and there is a 'Download' link.

--2 sa se afiseze codul retetei, procentul de compensare si procentul de compensare marit cu 5 pentru retetele care au doza mai mare sau egala cu 20

```
select cod_reteta_p, procent_compensare_p procent_existent,  
procent_compensare_p+5 procent_nou  
from retete_p  
where cod_reteta_p in (select cod_reteta_p from detalii_retete_p  
                        where doza_p>=20);
```

The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. On the right, there are search, user, and help icons, along with a 'Corbu Ioana' profile. Below the navigation bar, the 'SQL Commands' tab is active, showing a schema dropdown set to 'WKSP\_CORBUI'. The SQL editor contains the following query:

```
1 select cod_reteta_p, procent_compensare_p procent_existent, procent_compensare_p+5 procent_nou  
2 from retete_p  
3 where cod_reteta_p in (select cod_reteta_p from detalii_retete_p  
4                        where doza_p>=20);
```

Below the editor, the 'Results' tab is active, displaying a table with 3 columns: 'COD\_RETETA\_P', 'PROCENT\_EXISTENT', and 'PROCENT\_NOU'. The table contains 2 rows of data:

COD_RETETA_P	PROCENT_EXISTENT	PROCENT_NOU
10	40	45
12	20	25

At the bottom left, it says '2 rows returned in 0.02 seconds' and there is a 'Download' link.

--3 sa se afiseze id-ul,numele, prenumele si localitatea clientilor care sunt din aceeasi localitate cu Popescu Andrei

```
select id_client_p, nume_p, prenume_p, localitate_p
from clienti_p
where localitate_p=(select localitate_p from clienti_p
                     where nume_p='Popescu' and prenume_p='Andrei');
```

The screenshot shows the APEX SQL Workshop interface. At the top, there are tabs for 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The 'SQL Workshop' tab is active. Below the tabs, there is a search bar and a 'Schema' dropdown set to 'WKSP\_CORBU'. The main area displays the SQL command entered in the 'SQL Commands' section. The command is:   
1 select id\_client\_p, nume\_p, prenume\_p, localitate\_p  
2 from clienti\_p  
3 where localitate\_p=(select localitate\_p from clienti\_p  
4 where nume\_p='Popescu' and prenume\_p='Andrei');  
Below the command, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is selected, showing a table with 4 columns: ID\_CLIENT\_P, NUME\_P, PRENUME\_P, and LOCALITATE\_P. The table contains 3 rows of data. At the bottom, it says '3 rows returned in 0.01 seconds' and there is a 'Download' link.

ID_CLIENT_P	NUME_P	PRENUME_P	LOCALITATE_P
101	Stoica	Simona	Pitesti
100	Popescu	George	Pitesti
107	Popescu	Andrei	Pitesti

--4 sa se afiseze primele 2 retete cu valoarea cea mai mare

```
select*
from
(select cod_reteta_p, sum(pret_p*cantitate_p) valoare
from detalii_retete_p
group by cod_reteta_p
order by sum(pret_p*cantitate_p) desc)
where rownum<=2;
```

The screenshot shows the APEX SQL Workshop interface. At the top, there's a navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. Below this is a 'SQL Commands' section with a search icon, a schema dropdown set to 'WKSP\_CORBUI', and a language dropdown set to 'SQL'. The main area contains a SQL query with line numbers 1 through 8. Below the query, there's a 'Results' tab with sub-tabs for 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, showing a table with two columns: 'COD\_RETETA\_P' and 'VALOARE'. The table contains two rows of data. At the bottom, a status bar indicates '2 rows returned in 0.02 seconds' and a 'Download' link.

```
1 select*
2 from
3 (select cod_reteta_p, sum(pret_p*cantitate_p) valoare
4 from detalii_retete_p
5 group by cod_reteta_p
6 order by sum(pret_p*cantitate_p) desc)
7 where rownum<=2;
```

COD_RETETA_P	VALOARE
12	300
13	112.8

2 rows returned in 0.02 seconds Download

--5 sa se afiseze codul retetei,id-ul, numele, prenumele clientului, diagnosticul si nr de retete cu diagnosticul respectiv

```
select r.cod_reteta_p,c.id_client_p, c.num_p,c.prenume_p, r.diagnostic_p, (select
count(cod_reteta_p) from retete_p where diagnostic_p=r.diagnostic_p) nr_retete
from clienti_p c, retete_p r
where c.id_client_p=r.id_client_p;
```

APEX App Builder SQL Workshop Team Development App Gallery

SQL Commands Schema WKSP\_CO... Help

Language SQL Rows 10 Clear Command Find Tables Save Run

```

1 --4 sa se afiseze codul retetei,id-ul, numele, prenumele clientului, diagnosticul si nr de retete cu diagnosticul respectiv
2
3 select r.cod_reteta_p,c.id_client_p, c.num_p,c.prenume_p, r.diagnostic_p, (select count(cod_reteta_p) from retete_p where diagnostic_p=r.diagnostic_p) nr_retete
4 from clienti_p c, retete_p r
5 where c.id_client_p=r.id_client_p;
```

Results Explain Describe Saved SQL History

COD_RETETA_P	ID_CLIENT_P	NUME_P	PRENUME_P	DIAGNOSTIC_P	NR_RETETE
12	103	Cojocaru	Maria	hipertensiune	3
13	104	Bratu	Vasile	reumatism	1
18	102	Ionescu	Gabriela	hipertensiune	3
16	106	Vintila	Ana	sinuzita	2
17	106	Vintila	Ana	hipertensiune	3
10	100	Popescu	George	sinuzita	2
11	101	Stoica	Simona	diabet	1
14	105	Vintila	Aurel	dermatita	1


8 rows returned in 0.06 seconds Download



### Subiecte propuse la test

1. Dublează discountul aplicat primilor 3 clienți care au avut rețetele cele mai valoroase

```
update carduri_fidelitate_p
set discount_p=discount_p*2
where id_client_p in
(
select id_client_p
from
(select c.id_client_p, sum(d.pret_p*d.cantitate_p) valoare
from clienti_p c, retete_p r, detalii_retete_p d
where c.id_client_p=r.id_client_p and r.cod_reteta_p=d.cod_reteta_p
group by c.id_client_p
order by sum(d.pret_p*d.cantitate_p) desc
)
where rownum<=3
);
```

 **APEX**

App Builder ▾





**SQL Workshop** ▾

Team Development ▾

App Gallery ▾

SQL Commands

Language SQL ▾ ? Rows 10 ▾ ? Clear Command Find Tables

 A::

```
1  update carduri_fidelitate_p
2  set discount_p=discount_p*2
3  where id_client_p in
4  (
5  select id_client_p
6  from
7  (select c.id_client_p, sum(d.pret_p*d.cantitate_p) valoare
8  from clienti_p c, retete_p r, detalii_retete_p d
9  where c.id_client_p=r.id_client_p and r.cod_reteta_p=d.cod_reteta_p
10 group by c.id_client_p
11 order by sum(d.pret_p*d.cantitate_p) desc
12 )
13 where rownum<=3
14 );
15
16
```

Results

Explain

Describe

Saved SQL

History

2 row(s) updated.

0.09 seconds

2. Afișează medicamentele care au fost incluse în cel puțin 3 rețete ale clienților din București

```
select c.id_client_p, m.cod_medicament_p,m. denumire_medicament_p
from clienti_p c, retete_p r, detalii_retete_p d, medicamente_p m
where c.id_client_p=r.id_client_p and r.cod_reteta_p=d.cod_reteta_p and d.cod_medicament_p=m.cod_medicament_p and c.localitate_p='Bucuresti' and m.cod_medicament_p in
( select m.cod_medicament_p
  from medicamente_p m, detalii_retete_p d
  where m.cod_medicament_p=d.cod_medicament_p
  group by m.cod_medicament_p
  having count(d.cod_reteta_p)>=3
)
```

//in loc de 3 am pus 1 la numarul de retete deoarece nu aveam date



The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The main area displays the 'SQL Commands' tab with a query editor. The query is as follows:

```
1 select c.id_client_p, m.cod_medicament_p,m. denumire_medicament_p
2 from clienti_p c, retete_p r, detalii_retete_p d, medicamente_p m
3 where c.id_client_p=r.id_client_p and r.cod_reteta_p=d.cod_reteta_p and d.cod_medicament_p=m.cod_medicament_p and c.localitate_p='Bucuresti' and m.cod_medicament_p in
4 ( select m.cod_medicament_p
5   from medicamente_p m, detalii_retete_p d
6   where m.cod_medicament_p=d.cod_medicament_p
7   group by m.cod_medicament_p
8   having count(d.cod_reteta_p)>=1
9 )
10
11
```

Below the query editor, the 'Results' tab is active, showing a table with the following data:

ID_CLIENT_P	COD_MEDICAMENT_P	DENUMIRE_MEDICAMENT_P
102	58	Nebilet

At the bottom of the results section, it states '1 rows returned in 0.03 seconds' and provides a 'Download' link.

3. Construiește o interogare care să conțină: o joncțiune externă la stânga, funcția CASE și o funcție scalară

Să se afișeze id-ul, numele și prenumele cu litere mari ale clientului, sexul, iar pentru clienții care încep prenumele cu litera A să se afișeze emailul, pentru clienții care încep prenumele cu V să se afișeze telefonul, iar pentru restul localitatea, atât pentru clienții care au cerut rețete, dar și pentru cei care nu au rețete.

```
select c.id_client_p, upper(c.num_p), upper(c.prenume_p), c.sex_p, case
when c.prenume_p like 'A%' then c.email_client_p
when c.prenume_p like 'V%' then c.telefon_p
else c.localitate_p
end afisare
from clienti_p c, retete_p r
where c.id_client_p=r.id_client_p(+);
```

The screenshot shows the APEX SQL Workshop interface. The SQL command is as follows:

```
1 select c.id_client_p, upper(c.num_p), upper(c.prenume_p), c.sex_p, case
2 when c.prenume_p like 'A%' then c.email_client_p
3 when c.prenume_p like 'V%' then c.telefon_p
4 else c.localitate_p
5 end afisare
6 from clienti_p c, retete_p r
7 where c.id_client_p=r.id_client_p(+);
8
```

The results are displayed in a table with the following columns: ID\_CLIENT\_P, UPPER(C.NUM\_P), UPPER(C.PRENUME\_P), SEX\_P, and AFISARE.

ID_CLIENT_P	UPPER(C.NUM_P)	UPPER(C.PRENUME_P)	SEX_P	AFISARE
101	STOICA	SIMONA	F	Pitesti
103	COJOCARU	MARIA	F	Bacau
100	POPESCU	GEORGE	M	Pitesti
105	VINTILA	AUREL	M	-
106	VINTILA	ANA	F	-
106	VINTILA	ANA	F	-
104	BRATU	VASILE	M	0743768976

## 8. TABELE VIRTUALE

--1. Sa se creeze o tabela virtuala care contine clientii nascuti in anul 2000

create or replace view clienti\_2000

as select\*

from clienti\_p

where extract(year from data\_nasterii\_p)=2000;

select\* from clienti\_2000;

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The user is logged in as 'Corbu Ioana'. The 'SQL Commands' tab is active, showing a schema dropdown set to 'WKSP\_CORBUI'. The command area contains the following SQL code:

```
1  --TABELA VIRTUALE
2
3  --1. Sa se creeze o tabela virtuala care contine clientii nascuti in 2000
4  create or replace view clienti_2000
5  as select*
6  from clienti_p
7  where extract(year from data_nasterii_p)=2000;
8
9  select* from clienti_2000;
```

The 'Results' tab is selected, displaying a table with 8 columns: ID\_CLIENT\_P, NUME\_P, PRENUME\_P, DATA\_NASTERII\_P, SEX\_P, TELEFON\_P, EMAIL\_CLIENT\_P, and LOCALITATE\_P. The table contains 2 rows of data:

ID_CLIENT_P	NUME_P	PRENUME_P	DATA_NASTERII_P	SEX_P	TELEFON_P	EMAIL_CLIENT_P	LOCALITATE_P
101	Stoica	Simona	07/26/2000	F	0787540400	-	Pitesti
106	Vintila	Ana	09/08/2000	F	0741875647	-	Bradu

Below the table, it states '2 rows returned in 0.02 seconds' and provides a 'Download' link.

--2. Sa se creeze o tabela virtuala(nu permite modificari) care contine clientii care au carduri de fidelitate

create or replace view clienti\_cf

as select\* from clienti\_p

where id\_client\_p in

(select c.id\_client\_p

from clienti\_p c, carduri\_fidelitate\_p f

where c.id\_client\_p=f.id\_client\_p

)

with read only;

select\* from clienti\_cf;

The screenshot displays the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The user is logged in as 'Corbu Ioana Iulia'. The 'SQL Commands' panel shows the following SQL script:

```
--2. Sa se creeze o tabela virtuala(nu permite modificari) care contine clientii care au carduri de fidelitate
create or replace view clienti_cf
as select* from clienti_p
where id_client_p in
(select c.id_client_p
from clienti_p c, carduri_fidelitate_p f
where c.id_client_p=f.id_client_p
)
with read only;
select* from clienti_cf;
```

The 'Results' panel shows the output of the query, displaying a table with 8 columns: ID\_CLIENT\_P, NUME\_P, PRENUME\_P, DATA\_NASTERIL\_P, SEX\_P, TELEFON\_P, EMAIL\_CLIENT\_P, and LOCALITATE\_P. The table contains 7 rows of data.

ID_CLIENT_P	NUME_P	PRENUME_P	DATA_NASTERIL_P	SEX_P	TELEFON_P	EMAIL_CLIENT_P	LOCALITATE_P
101	Stoica	Simona	07/26/2000	F	0787540400	-	Pitesti
103	Cojocaru	Maria	05/20/1998	F	0771948576	mariaC@yahoo.com	Bacau
100	Popescu	George	03/05/1996	M	0721765544	georgepopescu07@gmail.com	Pitesti
105	Vintila	Aurel	09/12/1998	M	0745859670	-	Bascov
104	Bratu	Vasile	11/10/1997	M	0743768976	BratuV@yahoo.com	Sibiu
102	Ionescu	Gabriela	01/15/1999	F	0770675890	ionescuG@yahoo.com	Bucuresti

The footer of the interface includes the user's email 'corbuioana19@stud.ase.ro', the application name 'corbui', the language 'en', the copyright notice 'Copyright © 1999, 2020, Oracle and/or its affiliates. All rights reserved.', and the application version 'Application Express 20.2.0.00.20'.



--4 Sa se creeze o tabela virtuala(nu permite modificari) care contine clientii care au avut cel putin 2 retete la farmacie

create or replace view clienti\_2

as

SELECT \* FROM clienti\_p where id\_client\_p in (select c.id\_client\_p

from clienti\_p c, retete\_p r

where c.id\_client\_p=r.id\_client\_p

group by c.id\_client\_p

having count(r.id\_client\_p)>=2)

WITH READ ONLY;

select\* from clienti\_2;

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The user is logged in as 'Corbu Ioana Iulia'. The 'SQL Commands' tab is active, showing a schema of 'WKSP\_CORBUI'. The SQL command entered is:

```
1 --4 Sa se creeze o tabela virtuala(nu permite modificari) care contine clientii care au avut cel putin 2 retete la farmacie
2 create or replace view clienti_2
3 as
4 SELECT * FROM clienti_p where id_client_p in (select c.id_client_p
5 from clienti_p c, retete_p r
6 where c.id_client_p=r.id_client_p
7 group by c.id_client_p
8 having count(r.id_client_p)>=2)
9 WITH READ ONLY;
10
11 select* from clienti_2;
```

The 'Results' tab is selected, displaying a table with 8 columns: ID\_CLIENT\_P, NUME\_P, PRENUME\_P, DATA\_NASTERII\_P, SEX\_P, TELEFON\_P, EMAIL\_CLIENT\_P, and LOCALITATE\_P. The table contains 2 rows of data:

ID_CLIENT_P	NUME_P	PRENUME_P	DATA_NASTERII_P	SEX_P	TELEFON_P	EMAIL_CLIENT_P	LOCALITATE_P
106	Vintila	Ana	09/08/2000	F	0741875647	-	Bradu
104	Bratu	Vasile	11/10/1997	M	0743768976	BratuV@yahoo.com	Sibiu

Below the table, it states '2 rows returned in 0.01 seconds' and provides a 'Download' link.



--5 Sa se creeze o tabela virtuala care contine producatorii de tip SRL care au aprovizionat cu medicamente farmacia

create or replace view prod\_2

as select\* from producatori\_p where nume\_producator\_p like '%SRL' and id\_producator\_p in

(select p.id\_producator\_p from producatori\_p p, medicamente\_p m where p.id\_producator\_p=m.id\_producator\_p )

select\* from prod\_2;

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The 'SQL Commands' tab is active, showing a list of commands: 1. Comment, 2. 'create or replace view prod\_2', 3. 'as select\* from producatori\_p where nume\_producator\_p like '%SRL' and id\_producator\_p in', 4. '(select p.id\_producator\_p from producatori\_p p, medicamente\_p m where p.id\_producator\_p=m.id\_producator\_p group by p.id\_producator\_p);', 5. Empty line, 6. 'select\* from prod\_2;'. The 'Results' tab is selected, displaying a table with two columns: 'ID\_PRODUCATOR\_P' and 'NUME\_PRODUCATOR\_P'. The table contains four rows of data. Below the table, it states '4 rows returned in 0.02 seconds' and provides a 'Download' link.

ID_PRODUCATOR_P	NUME_PRODUCATOR_P
22	Farmaceutic SRL
20	Pharma SRL
25	LifeMed SRL
24	DrLife SRL

## 9.SECVENTE/INDECSI/SINONIME

-- 1 Sa se creeze o secventa pentru tabela clienti care porneste de la 110, incrementeaza cu 1, are valoarea maxima de 200 si este nocycle.

```
create sequence id_client_seq
```

```
increment by 1
```

```
start with 110
```

```
maxvalue 200
```

```
nocycle;
```

```
SELECT sequence_name, min_value, max_value, increment_by,
```

```
last_number
```

```
FROM user_sequences;
```

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery'. The 'SQL Commands' tab is active, and the schema is set to 'WKSP\_CORBUI'. The SQL editor contains the following commands:

```
1 -- 1 Sa se creeze o secventa pentru tabela clienti care porneste de la 110, incrementeaza cu 1, are valoarea maxima de 200 si este nocycle.
2 create sequence id_client_seq
3 increment by 1
4 start with 110
5 maxvalue 200
6 nocycle;
7
8 SELECT sequence_name, min_value, max_value, increment_by,
9 last_number
10 FROM user_sequences;
```

The 'Results' tab is selected, displaying the output of the query. The results are shown in a table with the following columns: SEQUENCE\_NAME, MIN\_VALUE, MAX\_VALUE, INCREMENT\_BY, and LAST\_NUMBER.

SEQUENCE_NAME	MIN_VALUE	MAX_VALUE	INCREMENT_BY	LAST_NUMBER
ID_CLIENT_SEQ	1	200	1	110

1 rows returned in 0.03 seconds [Download](#)

--2 Sa se creeze un index pentru tabela retete(id\_client).

create index retete\_id\_client\_idx

on retete\_p(id\_client\_p);

The screenshot displays the Oracle APEX SQL Workshop interface. The top navigation bar includes the APEX logo, 'App Builder', 'SQL Workshop', 'Team Development', and 'App Gallery' menus. On the right, there are search, share, and help icons, along with a user profile icon labeled 'CI' and the name 'Corbu Ioana Iul'. Below the navigation bar, the 'Object Browser' on the left lists various database objects, with 'RETETE\_ID\_CLIENT\_IDX' highlighted in green. The main panel shows the 'Object Details' for this index, with tabs for 'Object Details', 'Statistics', and 'SQL'. The 'Object Details' tab is active, showing a table of index properties. At the top of this panel are buttons for 'Disable', 'Drop', and 'Rebuild'. The index details table lists the following information:

Property	Value
Index Name	RETETE_ID_CLIENT_IDX
Index Type	NORMAL
Table Owner	WKSP_CORBUI
Table Name	RETETE_P
Table Type	TABLE
Uniqueness	NONUNIQUE
Compression	DISABLED
Prefix Length	-
Tablespace Name	APEX_13680528629770372283
Status	VALID
Last Analyzed	01/04/2021 12:33:42 PM

Below the index details is the 'Index Columns' section, which contains a table with three columns: 'Column Name', 'Column Expression', and 'Column Position'. The table is currently empty.

-- 3 Sa se creeze un sinonim pentru tabela carduri\_fidelitate;

create synonym cf

for carduri\_fidelitate\_p;

select\*

from cf;

APEX App Builder SQL Workshop Team Development App Gallery

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Schema WKSP\_CORBUI

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 -- 3 Sa se creeze un sinonim pentru tabela carduri_fidelitate;  
2 create synonym cf  
3 for carduri_fidelitate_p;  
4  
5 select*  
6 from cf;  
7
```

Results Explain Describe Saved SQL History

ID_CARD_P	ID_CLIENT_P	DISCOUNT_P
2	101	35
6	103	40
3	102	10
5	105	25
4	104	30
1	100	20

6 rows returned in 0.02 seconds Download