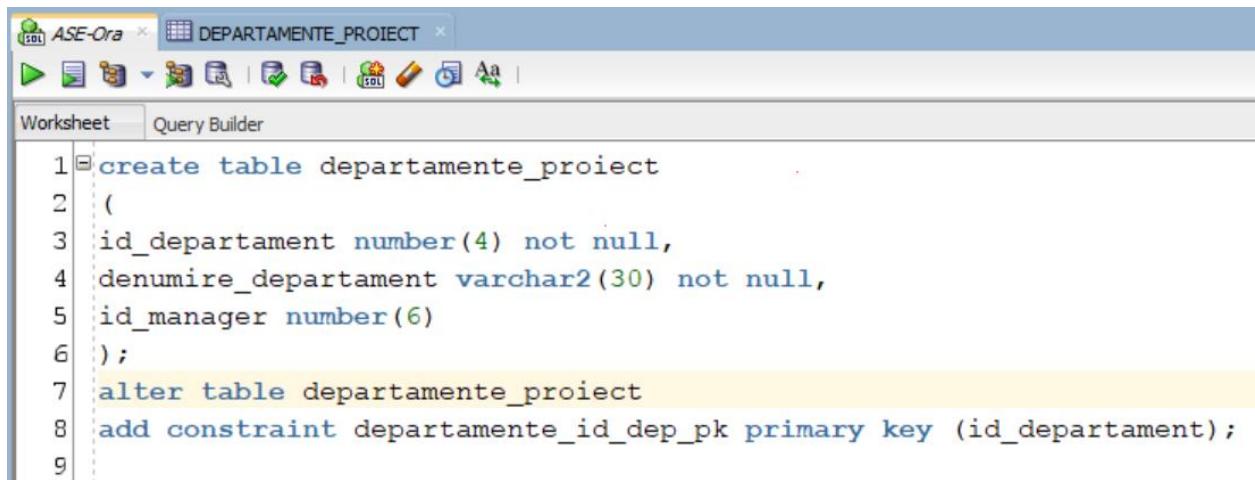


Proiect la Baze de Date

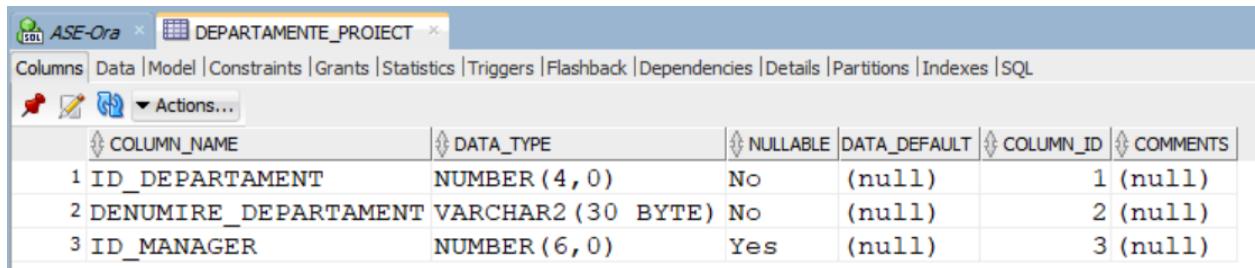
- 1. Schema bazei de date sa contine cel putin 4 tabele**
- 2. Create table cu restrictiile de integritate aferente**

```
create table departamente_proiect
(
    id_departament number(4) not null,
    denumire_departament varchar2(30) not null,
    id_manager number(6)
);
alter table departamente_proiect
add constraint departamente_id_dep_pk primary key (id_departament);
```



The screenshot shows the Oracle SQL Developer interface with the 'Worksheet' tab selected. The code area contains the SQL statements for creating the 'departamente_proiect' table and adding a primary key constraint. The code is highlighted in yellow.

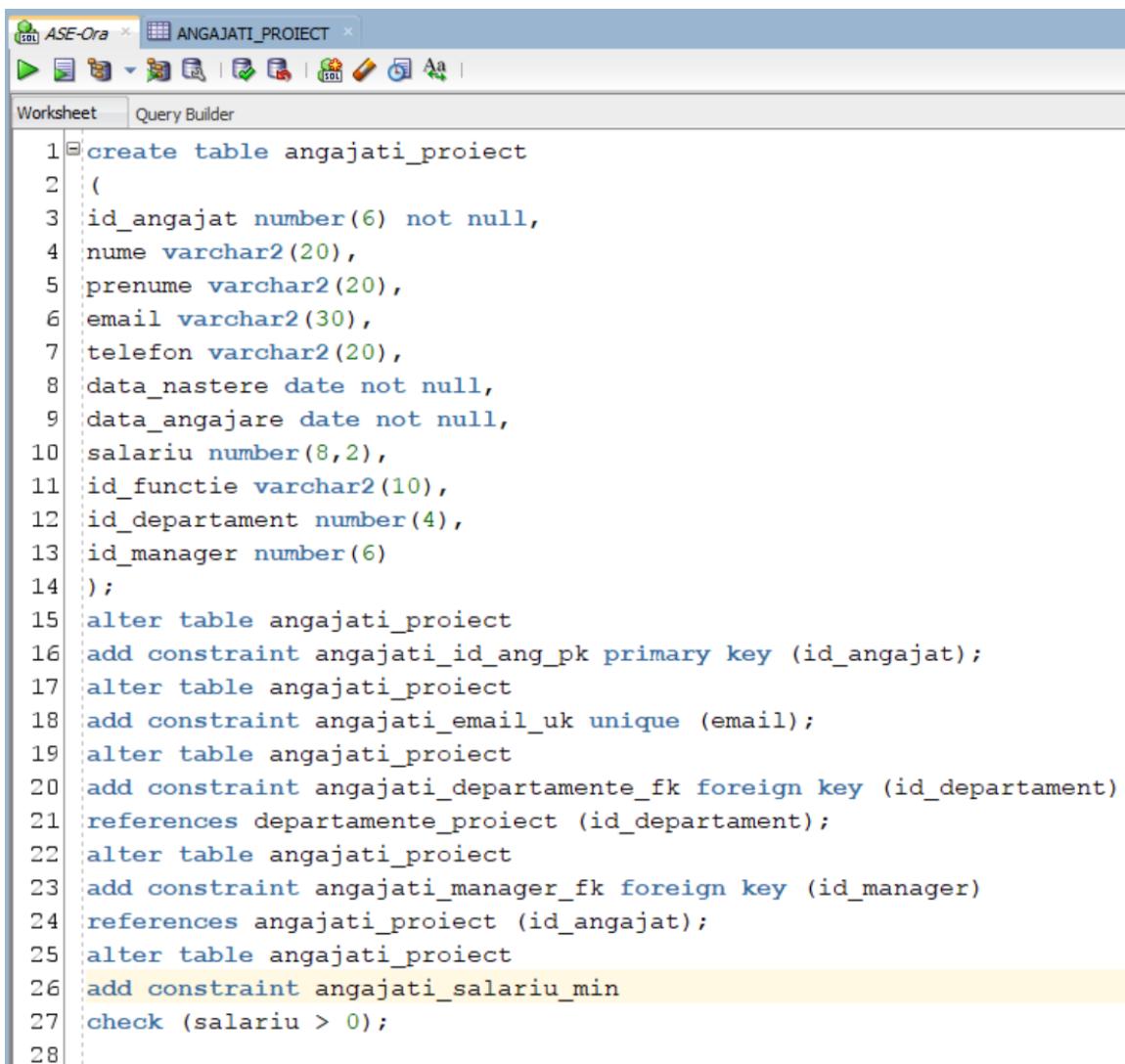
```
1 create table departamente_proiect
2 (
3     id_departament number(4) not null,
4     denumire_departament varchar2(30) not null,
5     id_manager number(6)
6 );
7 alter table departamente_proiect
8 add constraint departamente_id_dep_pk primary key (id_departament);
9
```



The screenshot shows the 'DEPARTAMENTE_PROIECT' table structure in the Oracle SQL Developer 'Model' tab. The table has three columns: 'ID_DEPARTAMENT' (NUMBER(4,0)), 'DENUMIRE_DEPARTAMENT' (VARCHAR2(30 BYTE)), and 'ID_MANAGER' (NUMBER(6,0)).

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID_DEPARTAMENT	NUMBER (4, 0)	No	(null)	1	(null)
2 DENUMIRE_DEPARTAMENT	VARCHAR2 (30 BYTE)	No	(null)	2	(null)
3 ID_MANAGER	NUMBER (6, 0)	Yes	(null)	3	(null)

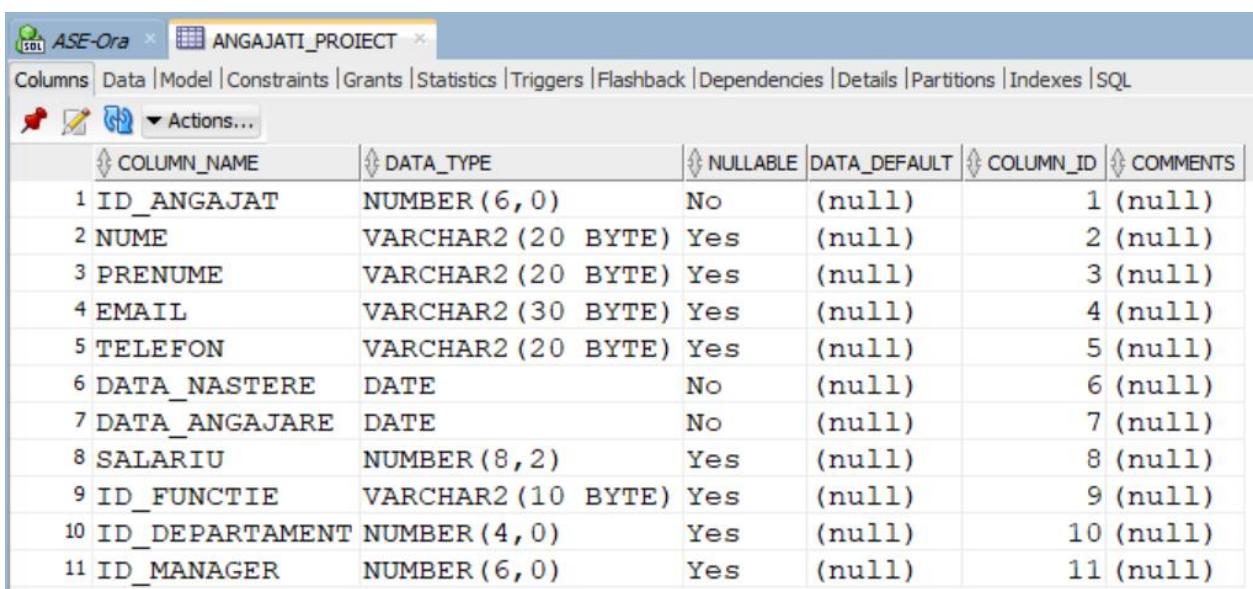
```
create table angajati_proiect
(
    id_angajat number(6) not null,
    nume varchar2(20),
    prenume varchar2(20),
    email varchar2(30),
    telefon varchar2(20),
    data_nastere date not null,
    data_angajare date not null,
    salariu number(8,2),
    id_functie varchar2(10),
    id_departament number(4),
    id_manager number(6)
);
alter table angajati_proiect
add constraint angajati_id_ang_pk primary key (id_angajat);
alter table angajati_proiect
add constraint angajati_email_uk unique (email);
alter table angajati_proiect
add constraint angajati_departamente_fk foreign key (id_departament)
references departamente_proiect (id_departament);
alter table angajati_proiect
add constraint angajati_manager_fk foreign key (id_manager)
references angajati_proiect (id_angajat);
alter table angajati_proiect
add constraint angajati_salariu_min
check (salariu > 0);
```



```

1 create table angajati_proiect
2 (
3     id_angajat number(6) not null,
4     nume varchar2(20),
5     prenume varchar2(20),
6     email varchar2(30),
7     telefon varchar2(20),
8     data_nastere date not null,
9     data_angajare date not null,
10    salariu number(8,2),
11    id_functie varchar2(10),
12    id_departament number(4),
13    id_manager number(6)
14 );
15 alter table angajati_proiect
16 add constraint angajati_id_ang_pk primary key (id_angajat);
17 alter table angajati_proiect
18 add constraint angajati_email_uk unique (email);
19 alter table angajati_proiect
20 add constraint angajati_departamente_fk foreign key (id_departament)
21 references departamente_proiect (id_departament);
22 alter table angajati_proiect
23 add constraint angajati_manager_fk foreign key (id_manager)
24 references angajati_proiect (id_angajat);
25 alter table angajati_proiect
26 add constraint angajati_salariu_min
27 check (salariu > 0);
28

```



Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Actions...

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID_ANGAJAT	NUMBER(6,0)	No	(null)	1	(null)
2 NUME	VARCHAR2(20 BYTE)	Yes	(null)	2	(null)
3 PRENUME	VARCHAR2(20 BYTE)	Yes	(null)	3	(null)
4 EMAIL	VARCHAR2(30 BYTE)	Yes	(null)	4	(null)
5 TELEFON	VARCHAR2(20 BYTE)	Yes	(null)	5	(null)
6 DATA_NASTERE	DATE	No	(null)	6	(null)
7 DATA_ANGAJARE	DATE	No	(null)	7	(null)
8 SALARIU	NUMBER(8,2)	Yes	(null)	8	(null)
9 ID_FUNCTIE	VARCHAR2(10 BYTE)	Yes	(null)	9	(null)
10 ID_DEPARTAMENT	NUMBER(4,0)	Yes	(null)	10	(null)
11 ID_MANAGER	NUMBER(6,0)	Yes	(null)	11	(null)

```
create table proiecte_proiect
(
    id_proiect number(4),
    denumire_proiect varchar2(30),
    descriere varchar2(200),
    categorie varchar2(30)
);
alter table proiecte_proiect
add constraint proiecte_id_proiect_pk primary key (id_proiect);
```

The screenshot shows the ASE-Ora SQL Worksheet interface. The title bar says "ASE-Ora x PROIECTE_PROJECT". The toolbar includes icons for running, saving, and zooming. The status bar shows "0.109 seconds". The main area has tabs for "Worksheet" and "Query Builder". The code in the Worksheet tab is identical to the one above. A yellow highlight covers the "alter table" and "add constraint" lines.

```
1 create table proiecte_proiect
2 (
3     id_proiect number(4),
4     denumire_proiect varchar2(30),
5     descriere varchar2(200),
6     categorie varchar2(30)
7 );
8 alter table proiecte_proiect
9 add constraint proiecte_id_proiect_pk primary key (id_proiect);
10
```

The screenshot shows the ASE-Ora interface with the "PROIECTE_PROJECT" table selected. The top navigation bar includes "Columns", "Data", "Model", "Constraints", "Grants", "Statistics", "Triggers", "Flashback", "Dependencies", "Details", "Partitions", "Indexes", and "SQL". Below the navigation bar is an "Actions..." dropdown. The main area displays a table of columns:

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID_PROIECT	NUMBER (4, 0)	No	(null)	1	(null)
2 DENUMIRE_PROIECT	VARCHAR2 (30 BYTE)	Yes	(null)	2	(null)
3 DESCRIERE	VARCHAR2 (200 BYTE)	Yes	(null)	3	(null)
4 CATEGORIE	VARCHAR2 (30 BYTE)	Yes	(null)	4	(null)

```
create table participanti_proiect
(
    id_participant number(4) not null,
    nume_participant varchar2(20) not null,
    prenume_participant varchar2(20),
    email_participant varchar2(30) not null,
    data_nastere_participant date not null
);
alter table participanti_proiect
add constraint participanti_id_pk primary key (id_participant);
alter table participanti_proiect
add constraint participanti_email_uk unique (email_participant);
```

The screenshot shows the ASE-Ora SQL Workbench interface. The title bar says "ASE-Ora > PARTICIPANTI_PROIECT". The main area is a "Worksheet" tab showing the SQL code for creating the table and adding constraints. The code is numbered from 1 to 13. The "PARTICIPANTI_PROIECT" table is highlighted in yellow.

```
1 create table participanti_proiect
2 (
3     id_participant number(4) not null,
4     nume_participant varchar2(20) not null,
5     prenume_participant varchar2(20),
6     email_participant varchar2(30) not null,
7     data_nastere_participant date not null
8 );
9 alter table participanti_proiect
10 add constraint participanti_id_pk primary key (id_participant);
11 alter table participanti_proiect|
12 add constraint participanti_email_uk unique (email_participant);
13
```

The screenshot shows the ASE-Ora SQL Workbench interface with the "PARTICIPANTI_PROIECT" table selected. The top menu bar includes "Columns", "Data", "Model", "Constraints", "Grants", "Statistics", "Triggers", "Flashback", "Dependencies", "Details", "Partitions", "Indexes", and "SQL". Below the menu is an "Actions..." button. The main area displays the table structure with columns: COLUMN_NAME, DATA_TYPE, NULLABLE, DATA_DEFAULT, COLUMN_ID, and COMMENTS. The table has five rows corresponding to the columns defined in the schema.

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID_PARTICIPANT	NUMBER(4,0)	No	(null)	1	(null)
2 NUME_PARTICIPANT	VARCHAR2(20 BYTE)	No	(null)	2	(null)
3 PRENUME_PARTICIPANT	VARCHAR2(20 BYTE)	Yes	(null)	3	(null)
4 EMAIL_PARTICIPANT	VARCHAR2(30 BYTE)	No	(null)	4	(null)
5 DATA_NASTERE_PARTICIPANT	DATE	No	(null)	5	(null)

```
create table contributii_proiect
(
    id_contributie number(6),
    id_participant number(4),
    id_proiect number(4),
    tip_contributie varchar2(30),
    valoare_in_bani number(8,2)
);

alter table contributii_proiect
add constraint contributii_id_cont_pk primary key (id_contributie);

alter table contributii_proiect
add constraint contributii_participanti_fk foreign key (id_participant)
references participanti_proiect (id_participant);

alter table contributii_proiect
add constraint contributii_proiecte_fk foreign key (id_proiect)
references proiecte_proiect (id_proiect);
```

The screenshot shows the ASE-Ora SQL Workbench interface. The title bar reads "ASE-Ora > CONTRIBUTII_PROJECT". The main area is a "Worksheet" tab showing the SQL code for creating the table and its constraints. The code is identical to the one provided in the text block above. The code is numbered from 1 to 17. The "Query Builder" tab is also visible. The status bar at the bottom right indicates "0.65200001 seconds".

```
1 create table contributii_proiect
2 (
3     id_contributie number(6),
4     id_participant number(4),
5     id_proiect number(4),
6     tip_contributie varchar2(30),
7     valoare_in_bani number(8,2)
8 );
9 alter table contributii_proiect
10 add constraint contributii_id_cont_pk primary key (id_contributie);
11 alter table contributii_proiect
12 add constraint contributii_participanti_fk foreign key (id_participant)
13 references participanti_proiect (id_participant);
14 alter table contributii_proiect
15 add constraint contributii_proiecte_fk foreign key (id_proiect)
16 references proiecte_proiect (id_proiect);
17
```

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID_CONTRIBUTIE	NUMBER (6, 0)	No	(null)	1	(null)
2 ID_PARTICIPANT	NUMBER (4, 0)	Yes	(null)	2	(null)
3 ID_PROIECT	NUMBER (4, 0)	Yes	(null)	3	(null)
4 TIP_CONTRIBUTIE	VARCHAR2 (30 BYTE)	Yes	(null)	4	(null)
5 VALOARE_IN_BANI	NUMBER (8, 2)	Yes	(null)	5	(null)

3. LMD 5 exemple de insert,

2 exemple de update, delete

3 exemple de select

1 exemplu de merge

```
insert into departamente_proiect
```

```
(id_departament, denumire_departament, id_manager)
```

```
values (50, 'IT', 122);
```

```

1 insert into departamente_proiect
2 (id_departament, denumire_departament, id_manager)
3 values (50, 'IT', 122);
4

```

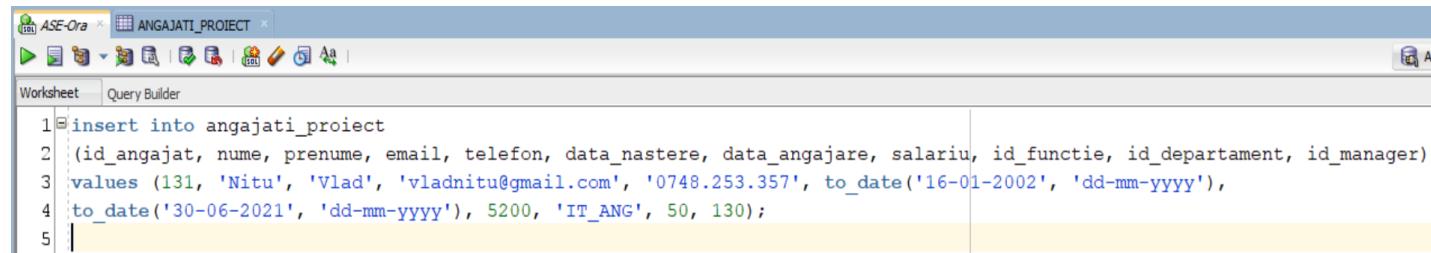
ID_DEPARTAMENT	DENUMIRE_DEPARTAMENT	ID_MANAGER
1	10 Administrativ	100
2	20 Financiar	102
3	30 Resurse Umane	108
4	40 Imagine si Promovare	114
5	50 IT	122

insert into angajati_proiect

(id_angajat, nume, prenume, email, telefon, data_nastere, data_angajare, salariu, id_functie, id_departament, id_manager)

values (131, 'Nitu', 'Vlad', 'vladnitu@gmail.com', '0748.253.357', to_date('16-01-2002', 'dd-mm-yyyy'),

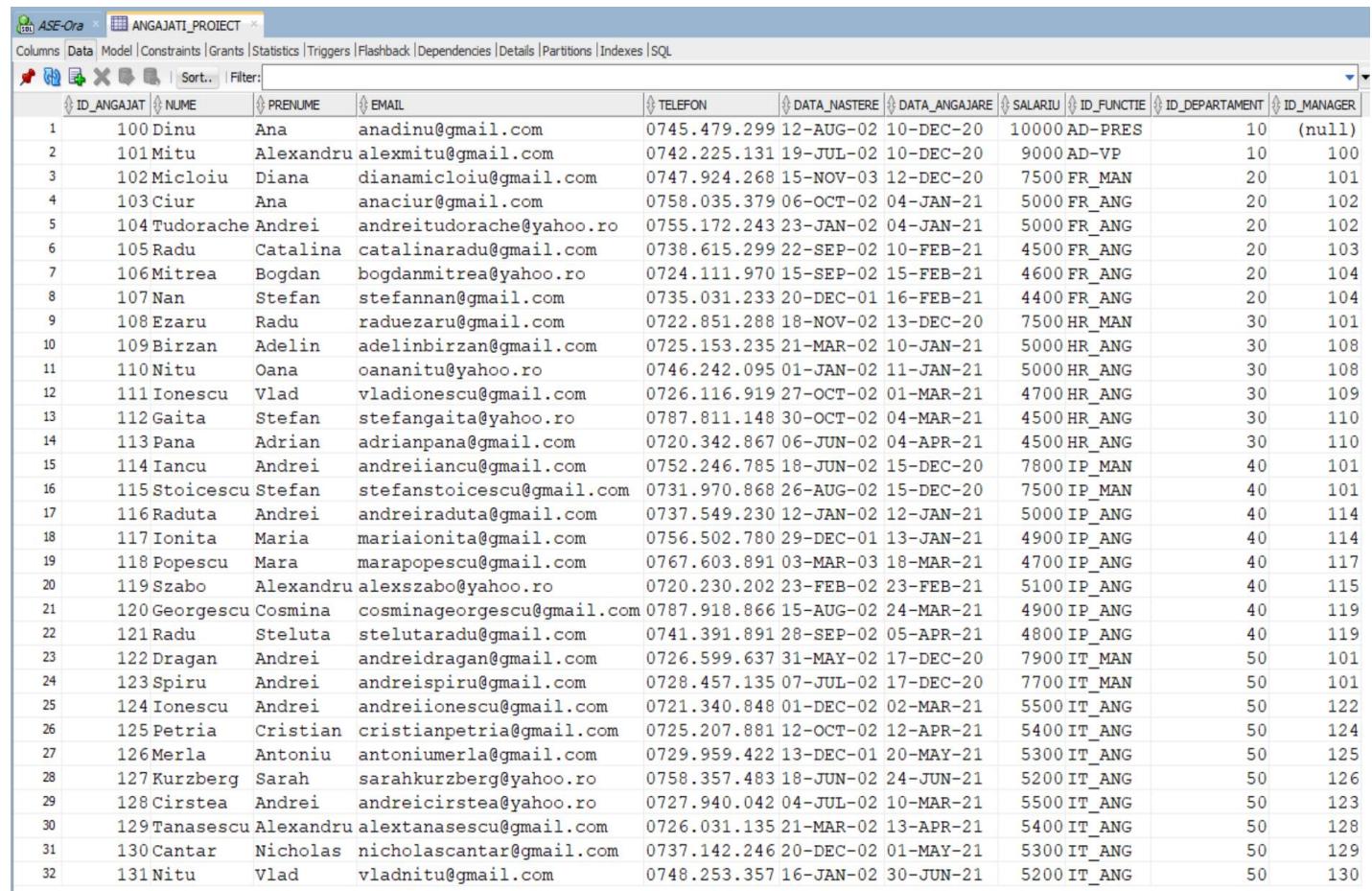
to_date('30-06-2021', 'dd-mm-yyyy'), 5200, 'IT_ANG', 50, 130);



```

1 insert into angajati_proiect
2 (id_angajat, nume, prenume, email, telefon, data_nastere, data_angajare, salariu, id_functie,
3 id_departament, id_manager)
4 values (131, 'Nitu', 'Vlad', 'vladnitu@gmail.com', '0748.253.357', to_date('16-01-2002', 'dd-mm-yyyy'),
5 to_date('30-06-2021', 'dd-mm-yyyy'), 5200, 'IT_ANG', 50, 130);
6

```



ID_ANGAJAT	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERE	DATA_ANGAJARE	SALARIU	ID_FUNCTIE	ID_DEPARTAMENT	ID_MANAGER	
1	100	Dinu	Ana	anadinu@gmail.com	0745.479.299	12-AUG-02	10-DEC-20	10000	AD-PRES	10	(null)
2	101	Mitu	Alexandru	alexmitu@gmail.com	0742.225.131	19-JUL-02	10-DEC-20	9000	AD-VP	10	100
3	102	Micloiu	Diana	dianamicloiu@gmail.com	0747.924.268	15-NOV-03	12-DEC-20	7500	FR_MAN	20	101
4	103	Ciur	Ana	anaciur@gmail.com	0758.035.379	06-OCT-02	04-JAN-21	5000	FR_ANG	20	102
5	104	Tudorache	Andrei	andreitudorache@yahoo.ro	0755.172.243	23-JAN-02	04-JAN-21	5000	FR_ANG	20	102
6	105	Radu	Catalina	catalinaradu@gmail.com	0738.615.299	22-SEP-02	10-FEB-21	4500	FR_ANG	20	103
7	106	Mitrea	Bogdan	bogdanmitrea@yahoo.ro	0724.111.970	15-SEP-02	15-FEB-21	4600	FR_ANG	20	104
8	107	Nan	Stefan	stefannan@gmail.com	0735.031.233	20-DEC-01	16-FEB-21	4400	FR_ANG	20	104
9	108	Ezaru	Radu	raduezaru@gmail.com	0722.851.288	18-NOV-02	13-DEC-20	7500	HR_MAN	30	101
10	109	Birzan	Adelin	adelinbirzan@gmail.com	0725.153.235	21-MAR-02	10-JAN-21	5000	HR_ANG	30	108
11	110	Nitu	Oana	oanานitу@yahoo.ro	0746.242.095	01-JAN-02	11-JAN-21	5000	HR_ANG	30	108
12	111	Ionescu	Vlad	vladionescu@gmail.com	0726.116.919	27-OCT-02	01-MAR-21	4700	HR_ANG	30	109
13	112	Gaita	Stefan	stefangaita@yahoo.ro	0787.811.148	30-OCT-02	04-MAR-21	4500	HR_ANG	30	110
14	113	Pana	Adrian	adrianpana@gmail.com	0720.342.867	06-JUN-02	04-APR-21	4500	HR_ANG	30	110
15	114	Iancu	Andrei	andreiancu@gmail.com	0752.246.785	18-JUN-02	15-DEC-20	7800	IP_MAN	40	101
16	115	Stoicescu	Stefan	stefanstoicescu@gmail.com	0731.970.868	26-AUG-02	15-DEC-20	7500	IP_MAN	40	101
17	116	Raduta	Andrei	andreiraduta@gmail.com	0737.549.230	12-JAN-02	12-JAN-21	5000	IP_ANG	40	114
18	117	Ionita	Maria	mariacionita@gmail.com	0756.502.780	29-DEC-01	13-JAN-21	4900	IP_ANG	40	114
19	118	Popescu	Mara	marapopescu@gmail.com	0767.603.891	03-MAR-03	18-MAR-21	4700	IP_ANG	40	117
20	119	Szabo	Alexandru	alekszabo@yahoo.ro	0720.230.202	23-FEB-02	23-FEB-21	5100	IP_ANG	40	115
21	120	Georgescu	Cosmina	cosminageorgescu@gmail.com	0787.918.866	15-AUG-02	24-MAR-21	4900	IP_ANG	40	119
22	121	Radu	Steluta	stelutaradu@gmail.com	0741.391.891	28-SEP-02	05-APR-21	4800	IP_ANG	40	119
23	122	Dragan	Andrei	andreidragan@gmail.com	0726.599.637	31-MAY-02	17-DEC-20	7900	IT_MAN	50	101
24	123	Spiru	Andrei	andreispiru@gmail.com	0728.457.135	07-JUL-02	17-DEC-20	7700	IT_MAN	50	101
25	124	Ionescu	Andrei	andreionescu@gmail.com	0721.340.848	01-DEC-02	02-MAR-21	5500	IT_ANG	50	122
26	125	Petria	Cristian	cristianpetria@gmail.com	0725.207.881	12-OCT-02	12-APR-21	5400	IT_ANG	50	124
27	126	Merla	Antoniu	antoniumerla@gmail.com	0729.959.422	13-DEC-01	20-MAY-21	5300	IT_ANG	50	125
28	127	Kurzberg	Sarah	sarahkurzberg@yahoo.ro	0758.357.483	18-JUN-02	24-JUN-21	5200	IT_ANG	50	126
29	128	Cirstea	Andrei	andreicirstea@yahoo.ro	0727.940.042	04-JUL-02	10-MAR-21	5500	IT_ANG	50	123
30	129	Tanasescu	Alexandru	alextanasescu@gmail.com	0726.031.135	21-MAR-02	13-APR-21	5400	IT_ANG	50	128
31	130	Cantar	Nicholas	nicholascantar@gmail.com	0737.142.246	20-DEC-02	01-MAY-21	5300	IT_ANG	50	129
32	131	Nitu	Vlad	vladnitu@gmail.com	0748.253.357	16-JAN-02	30-JUN-21	5200	IT_ANG	50	130

Szabo Alexandru-Ştefan, grupa 1060

```
insert into proiecte_proiect
(id_proiect, denumire_proiect, descriere, categorie)
values (2, 'Next In Tech', 'Un proiect in care promovam tehnologia si inovatia.',
'tehnologie');
```

The screenshot shows the Oracle SQL Developer interface. The top window is titled "ASE-Ora" and contains the SQL query:1 insert into proiecte_proiect
2 (id_proiect, denumire_proiect, descriere, categorie)
3 values (2, 'Next In Tech', 'Un proiect in care promovam tehnologia si inovatia.',
4 'tehnologie');

The screenshot shows the "Data" tab of the Oracle SQL Developer interface for the PROIECTE_PROJECT table. The table has four columns: ID_PROIECT, DENUMIRE_PROIECT, DESCRIERE, and CATEGORIE. The data is as follows:

ID_PROIECT	DENUMIRE_PROIECT	DESCRIERE	CATEGORIE
1	Dorințe Indeplinite	Un proiect in care ii ajutam cu bani, mancare sau lucruri pe cei care au nevoie.	caritabil
2	Next In Tech	Un proiect in care promovam tehnologia si inovatia.	tehnologie
3	Entertainment Masters	Un proiect in care vrem sa aducem un strop de distractie in viata tuturor.	entertainment

insert into participanti_proiect

```
(id_participant, nume_participant, prenume_participant, email_participant,
data_nastere_participant)
```

```
values (7, 'Ilie', 'David', 'davidilie@gmail.com', to_date('15-12-2004', 'dd-mm-yyyy'));
```

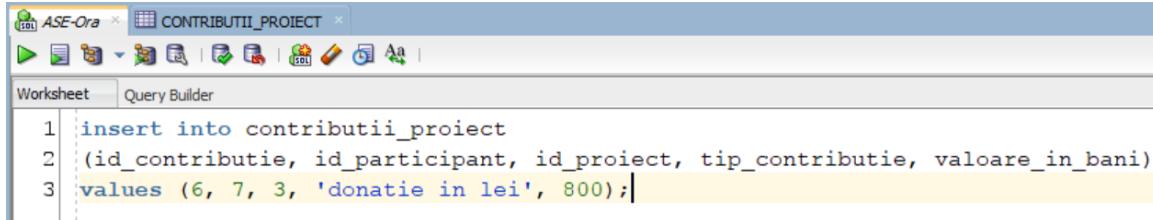
The screenshot shows the Oracle SQL Developer interface. The top window is titled "ASE-Ora" and contains the SQL query:1 insert into participanti_proiect
2 (id_participant, nume_participant, prenume_participant, email_participant, data_nastere_participant)
3 values (7, 'Ilie', 'David', 'davidilie@gmail.com', to_date('15-12-2004', 'dd-mm-yyyy'));

The screenshot shows the "Data" tab of the Oracle SQL Developer interface for the PARTICIPANTI_PROJECT table. The table has five columns: ID_PARTICIPANT, NUME_PARTICIPANT, PRENUME_PARTICIPANT, EMAIL_PARTICIPANT, and DATA_NASTERE_PARTICIPANT. The data is as follows:

ID_PARTICIPANT	NUME_PARTICIPANT	PRENUME_PARTICIPANT	EMAIL_PARTICIPANT	DATA_NASTERE_PARTICIPANT
1	Szabo	Tiberiu	tiberiuszabo@gmail.com	15-JUL-06
2	Popescu	Teodora	teopopescu@gmail.com	23-JUL-07
3	Lasue	Nathalie	nathalielasue@gmail.com	12-AUG-06
4	Popescu	Andrei	andreipopescu@gmail.com	24-FEB-01
5	Voinea	Andrei	andreivoinea@gmail.com	20-DEC-01
6	Capatina	Bogdan	bogdancapatina@gmail.com	12-APR-05
7	Ilie	David	davidilie@gmail.com	15-DEC-04

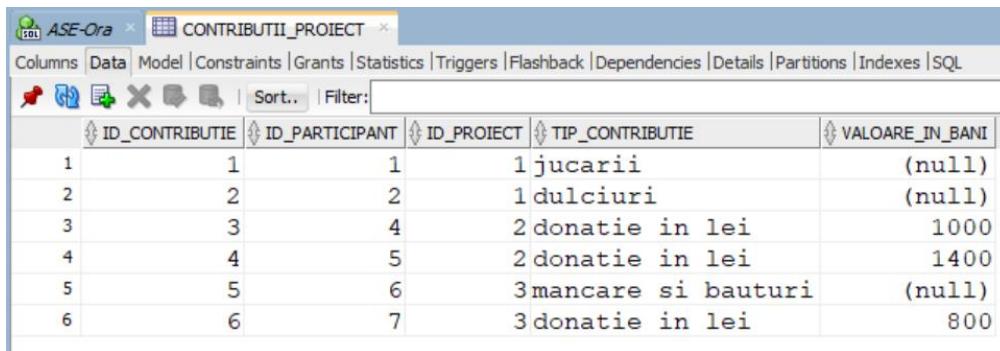
Szabo Alexandru-Ştefan, grupa 1060

```
insert into contributii_proiect  
(id_contributie, id_participant, id_proiect, tip_contributie, valoare_in_bani)  
values (6, 7, 3, 'donatie in lei', 800);
```



The screenshot shows the Oracle SQL Developer interface with a worksheet tab active. The code entered is:

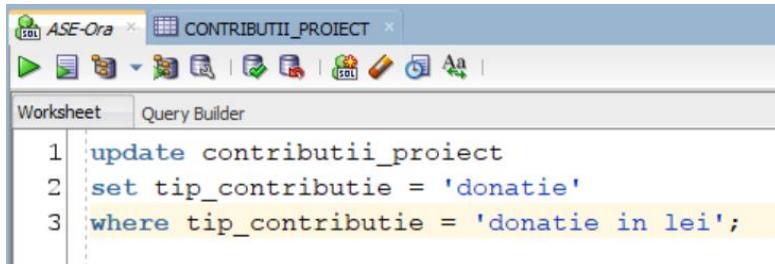
```
1 insert into contributii_proiect  
2 (id_contributie, id_participant, id_proiect, tip_contributie, valoare_in_bani)  
3 values (6, 7, 3, 'donatie in lei', 800);
```



The screenshot shows the Oracle SQL Developer interface with a data tab active, displaying the contents of the 'CONTRIBUTII_PROIECT' table.

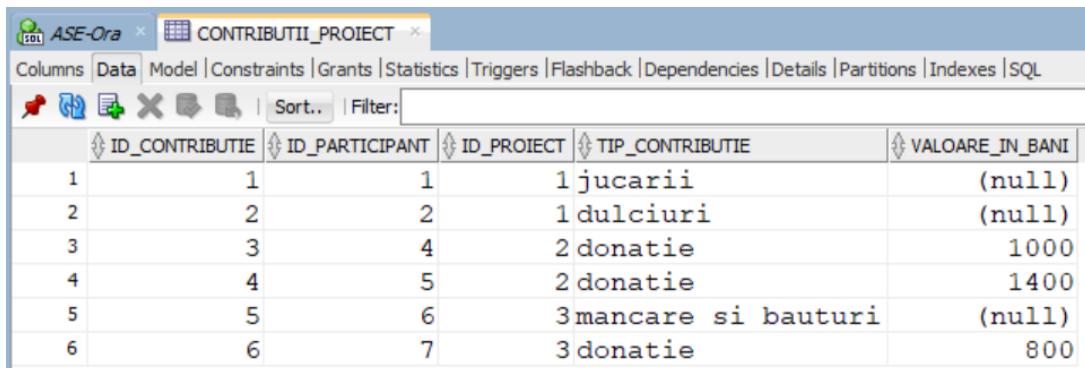
ID_CONTRIBUTIE	ID_PARTICIPANT	ID_PROIECT	TIPOContributie	VALOARE_IN_BANI
1	1	1	1 jucarii	(null)
2	2	2	1 dulciuri	(null)
3	3	4	2 donatie in lei	1000
4	4	5	2 donatie in lei	1400
5	5	6	3 mancare si bauturi	(null)
6	6	7	3 donatie in lei	800

```
update contributii_proiect  
set tip_contributie = 'donatie'  
where tip_contributie = 'donatie in lei';
```



The screenshot shows the Oracle SQL Developer interface with a worksheet tab active. The code entered is:

```
1 update contributii_proiect  
2 set tip_contributie = 'donatie'  
3 where tip_contributie = 'donatie in lei';
```



The screenshot shows the Oracle SQL Developer interface with a data tab active, displaying the contents of the 'CONTRIBUTII_PROIECT' table after the update.

ID_CONTRIBUTIE	ID_PARTICIPANT	ID_PROIECT	TIPOContributie	VALOARE_IN_BANI
1	1	1	1 jucarii	(null)
2	2	2	1 dulciuri	(null)
3	3	4	2 donatie	1000
4	4	5	2 donatie	1400
5	5	6	3 mancare si bauturi	(null)
6	6	7	3 donatie	800

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```
update angajati_proiect  
set salariu = salariu + 100  
where data_angajare < to_date('01-02-2021', 'dd-mm-yyyy');
```

The screenshot shows the ASE-Ora SQL Worksheet interface. The title bar says "ASE-Ora" and "ANGAJATI_PROIECT". The main area has tabs "Worksheet" and "Query Builder". The "Worksheet" tab is active, displaying the following SQL code:

```
1 update angajati_proiect  
2 set salariu = salariu + 100  
3 where data_angajare < to_date('01-02-2021', 'dd-mm-yyyy');
```

The screenshot shows the ASE-Ora SQL Worksheet interface. The title bar says "ASE-Ora" and "PROIECTE_PROJECT". The main area displays a table named "PROIECTE_PROJECT" with columns: ID_PROJECT, DENUMIRE_PROJECT, DESCRIERE, and CATEGORIE. The data is as follows:

ID_PROJECT	DENUMIRE_PROJECT	DESCRIERE	CATEGORIE
1	Dorinte Indeplinite	Un proiect in care ii ajutam cu bani, mancare sau lucruri pe cei care au nevoie.	caritabil
2	Next In Tech	Un proiect in care promovam tehnologia si inovatia.	tehnologie
3	Entertainment Masters	Un proiect in care vrem sa aducem un strop de distractie in viata tuturor.	entertainment
4	Amenajare Scena	Amenajam scena pentru un posibil eveniment din viitor.	intern

```
delete from proiecte_proiect  
where denumire_proiect = 'Amenajare Scena';
```

The screenshot shows the ASE-Ora SQL Worksheet interface. The title bar says "ASE-Ora" and "PROIECTE_PROJECT". The main area displays a table named "PROIECTE_PROJECT" with columns: ID_PROJECT, DENUMIRE_PROJECT, DESCRIERE, and CATEGORIE. The data is as follows:

ID_PROJECT	DENUMIRE_PROJECT	DESCRIERE	CATEGORIE
1	Dorinte Indeplinite	Un proiect in care ii ajutam cu bani, mancare sau lucruri pe cei care au nevoie.	caritabil
2	Next In Tech	Un proiect in care promovam tehnologia si inovatia.	tehnologie
3	Entertainment Masters	Un proiect in care vrem sa aducem un strop de distractie in viata tuturor.	entertainment

```
select * from angajati_proiect  
where id_functie like '%MAN';
```

The screenshot shows the ASE-Ora SQL Worksheet interface. The title bar says "ASE-Ora" and "ANGAJATI_PROJECT". The main area has tabs "Worksheet" and "Query Result". The "Query Result" tab is active, displaying the following SQL code:

```
1 select * from angajati_proiect  
2 where id_functie like '%MAN';
```

Below the code, it says "All Rows Fetched: 6 in 0.011 seconds". The data is as follows:

ID_ANGAJAT	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERE	DATA_ANGAJARE	SALARIU	ID_FUNCTIE	ID_DEPARTAMENT	ID_MANAGER
102	Micloiu	Diana	dianamicloiu@gmail.com	0747.924.268	15-NOV-03	12-DEC-20	7600	FR_MAN	20	101
108	Ezaru	Radu	raduezaru@gmail.com	0722.851.288	18-NOV-02	13-DEC-20	7600	HR_MAN	30	101
114	Iancu	Andrei	andreiiancu@gmail.com	0752.246.785	18-JUN-02	15-DEC-20	7900	IP_MAN	40	101
115	Stoicescu	Stefan	stefanstoicescu@gmail.com	0731.970.868	26-AUG-02	15-DEC-20	7600	IP_MAN	40	101
122	Dragan	Andrei	andreidragan@gmail.com	0726.599.637	31-MAY-02	17-DEC-20	8000	IT_MAN	50	101
123	Spiru	Andrei	andreispiru@gmail.com	0728.457.135	07-JUL-02	17-DEC-20	7800	IT_MAN	50	101

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```
select id_angajat, nume, prenume, id_functie  
from angajati_proiect  
where prenume = 'Andrei';
```

The screenshot shows the ASE-Ora SQL Workbench interface. The top window is titled 'ANGAJATI_PROJECT'. The 'Worksheet' tab contains the following SQL code:

```
1 select id_angajat, nume, prenume, id_functie  
2 from angajati_proiect  
3 where prenume = 'Andrei';
```

The 'Query Result' tab shows the output of the query:

ID_ANGAJAT	NUME	PRENUME	ID_FUNCTIE
1	104 Tudorache	Andrei	FR_ANG
2	114 Iancu	Andrei	IP_MAN
3	116 Raduta	Andrei	IP_ANG
4	122 Dragan	Andrei	IT_MAN
5	123 Spiru	Andrei	IT_MAN
6	124 Ionescu	Andrei	IT_ANG
7	128 Cirstea	Andrei	IT_ANG

```
select a.id_angajat, a.nume, a.prenume, a.id_departament, d.denumire_departament  
from angajati_proiect a, departamente_proiect d  
where a.id_departament = d.id_departament  
and a.nume like 'M%';
```

The screenshot shows the ASE-Ora SQL Workbench interface. The top window is titled 'DEPARTAMENTE_PROJECT'. The 'Worksheet' tab contains the following SQL code:

```
1 select a.id_angajat, a.nume, a.prenume, a.id_departament, d.denumire_departament  
2 from angajati_proiect a, departamente_proiect d  
3 where a.id_departament = d.id_departament  
4 and a.nume like 'M%';
```

The 'Query Result' tab shows the output of the query:

ID_ANGAJAT	NUME	PRENUME	ID_DEPARTAMENT	DENUMIRE_DEPARTAMENT
1	101 Mitu	Alexandru	10	Administrativ
2	102 Micloiu	Diana	20	Financiar
3	106 Mitrea	Bogdan	20	Financiar
4	126 Merla	Antoniu	50	IT

The screenshot shows the ASE-Ora SQL Workbench interface. The top window is titled 'PARTICIPANTI_POSIBILI'. The 'Worksheet' tab contains the following SQL code:

```
1 select * from PARTICIPANTI_POSIBILI;
```

The 'Query Result' tab shows the output of the query:

ID_PARTICIPANT	NUME_PARTICIPANT	PRENUME_PARTICIPANT	EMAIL_PARTICIPANT	DATA_NASTERE_PARTICIPANT
1	3 Lasue	Nathalie	nathalielasue@yahoo.ro	12-AUG-06
2	100 Dita	Mara	maradita@gmail.com	01-DEC-02
3	101 Dita	Stefan	stefandita@gmail.com	20-JUN-07

```
merge into participanti_posibili po
using participanti_proiect pr
on (po.id_participant = pr.id_participant)
when not matched then
    insert (po.id_participant, po.numere_participant, po.prenume_participant, po.email_participant,
po.data_nastere_participant)
        values (pr.id_participant, pr.numere_participant, pr.prenume_participant,
pr.email_participant, pr.data_nastere_participant)
when matched then
    update set po.email_participant = pr.email_participant;
```

ID_PARTICIPANT	NUME_PARTICIPANT	PRENUME_PARTICIPANT	EMAIL_PARTICIPANT	DATA_NASTERE_PARTICIPANT
1	3 Lasue	Nathalie	nathalielasue@gmail.com	12-AUG-06
2	100 Dita	Mara	maradita@gmail.com	01-DEC-02
3	101 Dita	Stefan	stefandita@gmail.com	20-JUN-07
4	1 Szabo	Tiberiu	tiberiuszabo@gmail.com	15-JUL-06
5	2 Popescu	Teodora	teopopescu@gmail.com	23-JUL-07
6	4 Popescu	Andrei	andreipopescu@gmail.com	24-FEB-01
7	5 Voinea	Andrei	andreivoinea@gmail.com	20-DEC-01
8	6 Capatina	Bogdan	bogdancapatina@gmail.com	12-APR-05
9	7 Ilie	David	davidilie@gmail.com	15-DEC-04

4. Interogari, jonctiuni

1 exemplu cu ANY

1 exemplu cu ALL

1 exemplu jonctiuni de egalitate

1 exemplu jonctiune externa

2 exemple interogari subordinate

```
select id_angajat, nume, prenume, id_functie, salariu
from angajati_proiect
where salariu < any (select salariu from angajati_proiect where id_functie like '%IT%')
and id_functie <> 'IT_MAN' and id_functie <> 'IT_ANG'
order by salariu desc;
```

The screenshot shows the ASE-Ora SQL Workbench interface. The top window is titled 'ANGAJATI_PROJECT'. The 'Worksheet' tab is active, displaying the SQL query. The 'Query Result' tab is also visible, showing the results of the executed query. The results are presented in a table with columns: ID_ANGAJAT, NUME, PRENUME, ID_FUNCTIE, and SALARIU. The data is sorted by SALARIU in descending order.

ID_ANGAJAT	NUME	PRENUME	ID_FUNCTIE	SALARIU
1	Iancu	Andrei	IP_MAN	7900
2	Ezaru	Radu	HR_MAN	7600
3	Micloiu	Diana	FR_MAN	7600
4	Stoicescu	Stefan	IP_MAN	7600
5	Birzan	Adelin	HR_ANG	5100
6	Tudorache	Andrei	FR_ANG	5100
7	Ciur	Ana	FR_ANG	5100
8	Nitu	Oana	HR_ANG	5100
9	Raduta	Andrei	IP_ANG	5100
10	Szabo	Alexandru	IP_ANG	5100
11	Ionita	Maria	IP_ANG	5000
12	Georgescu	Cosmina	IP_ANG	4900
13	Radu	Steluta	IP_ANG	4800
14	Popescu	Mara	IP_ANG	4700
15	Ionescu	Vlad	HR_ANG	4700
16	Mitrea	Bogdan	FR_ANG	4600
17	Radu	Catalina	FR_ANG	4500
18	Gaita	Stefan	HR_ANG	4500
19	Pana	Adrian	HR_ANG	4500
20	Nan	Stefan	FR_ANG	4400

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```
select id_angajat, nume, prenume, id_functie, salariu
from angajati_proiect
where salariu < all (select salariu from angajati_proiect where id_functie like '%IP%')
order by salariu desc;
```

The screenshot shows the Oracle SQL Developer interface. The top window is titled 'ANGAJATI_PROIECT' and contains the SQL query. The bottom window is titled 'Query Result' and displays the resulting table:

ID_ANGAJAT	NUME	PRENUME	ID_FUNCTIE	SALARIU	
1	106	Mitrea	Bogdan	FR_ANG	4600
2	112	Gaita	Stefan	HR_ANG	4500
3	105	Radu	Catalina	FR_ANG	4500
4	113	Pana	Adrian	HR_ANG	4500
5	107	Nan	Stefan	FR_ANG	4400

```
select a.id_angajat, a.nume, a.prenume, a.id_departament, d.denumire_departament
from angajati_proiect a, departamente_proiect d
where a.id_departament = d.id_departament
and a.nume like 'S%';
```

The screenshot shows the Oracle SQL Developer interface. The top window is titled 'ANGAJATI_PROIECT' and contains the SQL query. The bottom window is titled 'Query Result' and displays the resulting table:

ID_ANGAJAT	NUME	PRENUME	ID_DEPARTAMENT	DENUMIRE_DEPARTAMENT
1	115	Stoicescu	Stefan	40 Imagine si Promovare
2	119	Szabo	Alexandru	40 Imagine si Promovare
3	123	Spiru	Andrei	50 IT

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```
select p.id_participant, p.nume_participant, p.prenume_participant, c.tip_contributie,  
c.valoare_in_bani  
from participanti_proiect p, contributii_proiect c  
where p.id_participant = c.id_participant(+);
```

The screenshot shows the Oracle SQL Developer interface with the tab 'PARTICIPANTI_PROIECT' selected. In the 'Worksheet' tab, the following SQL code is displayed:

```
1 select p.id_participant, p.nume_participant, p.prenume_participant, c.tip_contributie, c.valoare_in_bani  
2 from participanti_proiect p, contributii_proiect c  
3 where p.id_participant = c.id_participant(+);  
4
```

Below the code, the 'Query Result' tab displays the results of the query:

ID_PARTICIPANT	NUME_PARTICIPANT	PRENUME_PARTICIPANT	TIPOFIC	VALOARE_IN_BANI
1	Szabo	Tiberiu	jucarii	(null)
2	Popescu	Teodora	dulciuri	(null)
3	Lasue	Nathalie	(null)	(null)
4	Popescu	Andrei	donatie	1000
5	Voinea	Andrei	donatie	1400
6	Capatina	Bogdan	mancare si bauturi	(null)
7	Ilie	David	donatie	800
8	Sturza	Mihai	(null)	(null)
9	Simion	Stefan	(null)	(null)
10	Stefan	Roberto	(null)	(null)

```
select * from angajati_proiect  
where id_departament = (select id_departament from angajati_proiect  
                           where upper(prenume) = 'ADRIAN');
```

The screenshot shows the Oracle SQL Developer interface with the tab 'ANGAJATI_PROJECT' selected. In the 'Worksheet' tab, the following SQL code is displayed:

```
1 select * from angajati_proiect  
2 where id_departament = (select id_departament from angajati_proiect  
                           where upper(prenume) = 'ADRIAN');
```

Below the code, the 'Query Result' tab displays the results of the query:

ID_ANGAJAT	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERE	DATA_ANGAJARE	SALARIU	ID_FUNCTIE	ID_DEPARTAMENT	ID_MANAGER
1	Ezaru	Radu	raduezaru@gmail.com	0722.851.288	18-NOV-02	13-DEC-20	7600	HR_MAN	30	101
2	Birzan	Adelin	adelinbirzan@gmail.com	0725.153.235	21-MAR-02	10-JAN-21	5100	HR_ANG	30	108
3	Nitu	Oana	oananitu@yahoo.ro	0746.242.095	01-JAN-02	11-JAN-21	5100	HR_ANG	30	108
4	Ionescu	Vlad	vladionescu@gmail.com	0726.116.919	27-OCT-02	01-MAR-21	4700	HR_ANG	30	109
5	Gaita	Stefan	stefangaita@yahoo.ro	0787.811.148	30-OCT-02	04-MAR-21	4500	HR_ANG	30	110
6	Pana	Adrian	adrianpana@gmail.com	0720.342.867	06-JUN-02	04-APR-21	4500	HR_ANG	30	110

```
select * from angajati_proiect
where salariu > (select salariu from angajati_proiect
                    where lower(nume) = 'petria');
```

The screenshot shows the Oracle SQL Developer interface with a worksheet tab open. The query is:

```
1 select * from angajati_proiect
2 where salariu > (select salariu from angajati_proiect
3                     where lower(nume) = 'petria');
```

Below the query results, the output table is displayed:

ID_ANGAJAT	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERE	DATA_ANASTARE	SALARIU	ID_FUNCTIE	ID_DEPARTAMENT	ID_MANAGER	
1	100	Dinu	Ana	anadinu@gmail.com	0745.479.299	12-AUG-02	10-DEC-20	10100	AD-PRES	10	(null)
2	101	Mitu	Alexandru	alexmitu@gmail.com	0742.225.131	19-JUL-02	10-DEC-20	9100	AD-VP	10	100
3	102	Micloiu	Diana	dianamicloiu@gmail.com	0747.924.268	15-NOV-03	12-DEC-20	7600	FR_MAN	20	101
4	108	Ezaru	Radu	raduezaru@gmail.com	0722.851.288	18-NOV-02	13-DEC-20	7600	HR_MAN	30	101
5	114	Iancu	Andrei	andreiiancu@gmail.com	0752.246.785	18-JUN-02	15-DEC-20	7900	IP_MAN	40	101
6	115	Stoicescu	Stefan	stefanstoicescu@gmail.com	0731.970.868	26-AUG-02	15-DEC-20	7600	IP_MAN	40	101
7	122	Dragan	Andrei	andredragan@gmail.com	0726.599.637	31-MAY-02	17-DEC-20	8000	IT_MAN	50	101
8	123	Spiru	Andrei	andreispiru@gmail.com	0728.457.135	07-JUL-02	17-DEC-20	7800	IT_MAN	50	101
9	124	Ionescu	Andrei	andreiionescu@gmail.com	0721.340.848	01-DEC-02	02-MAR-21	5500	IT_ANG	50	122
10	128	Cirstea	Andrei	andreicirstea@yahoo.ro	0727.940.042	04-JUL-02	10-MAR-21	5500	IT_ANG	50	123

5. Functii, exemple (1) pentru fiecare din:

UPPER(), concatenare (||), SUBSTR(), SYSDATE, MONTHS_BETWEEN() ,
ADD_MONTHS() ,
NEXT_DAY() , LAST_DAY() , TO_NUMBER, NVL, COUNT, SUM, MAX

```
select 'Angajatul ' || nume || ' ' || prenume || ' are salariul ' || salariu || ' RON.'
from angajati_proiect;
```

The screenshot shows the Oracle SQL Developer interface with a worksheet tab open. The query is:

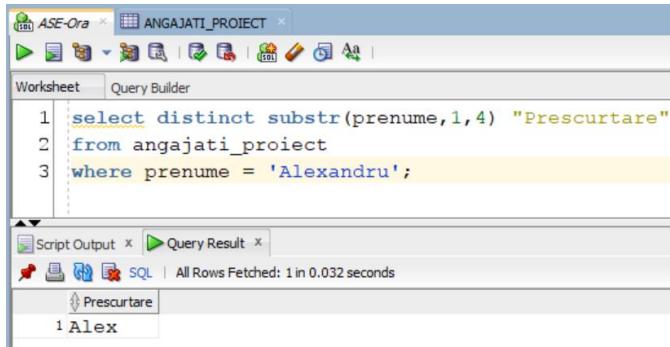
```
1 select 'Angajatul ' || nume || ' ' || prenume || ' are salariul ' || salariu || ' RON.'
2 from angajati_proiect;
```

Below the query results, the output table is displayed:

ANGAJATUL NUME ' PREENUME ' RESALARIUL ' SALARIU ' RON.'
1 Angajatul Dinu Ana are salariul 10100 RON.
2 Angajatul Mitu Alexandru are salariul 9100 RON.
3 Angajatul Micloiu Diana are salariul 7600 RON.
4 Angajatul Ciur Ana are salariul 5100 RON.
5 Angajatul Tudorache Andrei are salariul 5100 RON.
6 Angajatul Radu Catalina are salariul 4500 RON.
7 Angajatul Mitrea Bogdan are salariul 4600 RON.
8 Angajatul Nan Stefan are salariul 4400 RON.
9 Angajatul Ezaru Radu are salariul 7600 RON.
10 Angajatul Birzan Adelin are salariul 5100 RON.
11 Angajatul Nitu Oana are salariul 5100 RON.
12 Angajatul Topanu Vlad are salariul 4700 RON.

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```
select distinct substr(prenume,1,4) "Prescurtare"  
from angajati_proiect  
where prenume = 'Alexandru';
```



The screenshot shows the Oracle SQL Developer interface. The top bar has tabs for 'ASE-Ora' and 'ANGAJATI_PROJECT'. The main area is a 'Worksheet' tab with the following SQL code:

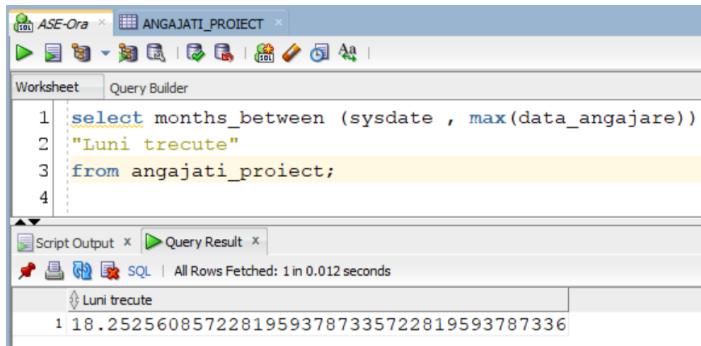
```
1 select distinct substr(prenume,1,4) "Prescurtare"  
2 from angajati_proiect  
3 where prenume = 'Alexandru';
```

Below the code, there are tabs for 'Script Output' and 'Query Result'. The 'Query Result' tab shows the output:

Prescurtare
1 Alex

Statistics at the bottom indicate 'All Rows Fetched: 1 in 0.032 seconds'.

```
select months_between (sysdate , max(data_angajare))  
"Luni trecute"  
from angajati_proiect;
```



The screenshot shows the Oracle SQL Developer interface. The top bar has tabs for 'ASE-Ora' and 'ANGAJATI_PROJECT'. The main area is a 'Worksheet' tab with the following SQL code:

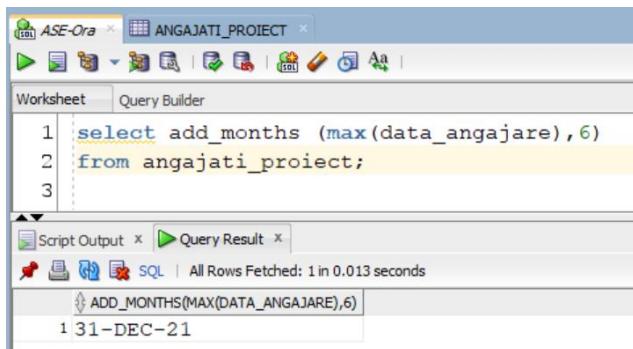
```
1 select months_between (sysdate , max(data_angajare))  
2 "Luni trecute"  
3 from angajati_proiect;  
4
```

Below the code, there are tabs for 'Script Output' and 'Query Result'. The 'Query Result' tab shows the output:

Luni trecute
1 18.25256085722819593787335722819593787336

Statistics at the bottom indicate 'All Rows Fetched: 1 in 0.012 seconds'.

```
select add_months (max(data_angajare),6)  
from angajati_proiect;
```



The screenshot shows the Oracle SQL Developer interface. The top bar has tabs for 'ASE-Ora' and 'ANGAJATI_PROJECT'. The main area is a 'Worksheet' tab with the following SQL code:

```
1 select add_months (max(data_angajare),6)  
2 from angajati_proiect;  
3
```

Below the code, there are tabs for 'Script Output' and 'Query Result'. The 'Query Result' tab shows the output:

ADD_MONTHS(MAX(DATA_ANGAJARE),6)
1 31-DEC-21

Statistics at the bottom indicate 'All Rows Fetched: 1 in 0.013 seconds'.

Szabo Alexandru-Ştefan, grupa 1060

```
select next_day (max(data_angajare) , 'monday')
from angajati_proiect;
```

The screenshot shows the ASE-Ora SQL Workbench interface. The title bar says "ASE-Ora" and "ANGAJATI_PROIECT". The toolbar has various icons for database management. The main area is a "Worksheet" tab where the following SQL code is entered:

```
1 select next_day (max(data_angajare) , 'monday')
2 from angajati_proiect;
3
```

Below the worksheet, there are tabs for "Script Output" and "Query Result". The "Query Result" tab shows the output of the query:

	NEXT_DAY(MAX(DATA_ANGAJARE),'MONDAY')
1	05-JUL-21

All rows were fetched in 0.011 seconds.

```
select data_angajare,
       last_day(data_angajare) "ULTIMA ZI",
       last_day(data_angajare) - data_angajare "ZILE RAMASE"
  from angajati_proiect
 where nume = 'Szabo';
```

The screenshot shows the ASE-Ora SQL Workbench interface. The title bar says "ASE-Ora" and "ANGAJATI_PROIECT". The toolbar has various icons for database management. The main area is a "Worksheet" tab where the following SQL code is entered:

```
1 select data_angajare,
2        last_day(data_angajare) "ULTIMA ZI",
3        last_day(data_angajare) - data_angajare "ZILE RAMASE"
4   from angajati_proiect
5  where nume = 'Szabo';
6
```

Below the worksheet, there are tabs for "Script Output" and "Query Result". The "Query Result" tab shows the output of the query:

	DATA_ANGAJARE	ULTIMA ZI	ZILE RAMASE
1	23-FEB-21	28-FEB-21	5

All rows were fetched in 0.055 seconds.

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```
select salariu + TO_NUMBER('1000.00', '9999D99')  
"CRESTERE SALARIALA"  
from angajati_proiect  
WHERE nume = 'Szabo';
```

The screenshot shows the ASE-Ora SQL Workbench interface. The top window is titled 'ANGAJATI_PROIECT' and contains the SQL code. The bottom window is titled 'Query Result' and displays the result of the query, which is a single row with value 6100.

```
1 select salariu + TO_NUMBER('1000.00', '9999D99')  
2 "CRESTERE SALARIALA"  
3 from angajati_proiect  
4 WHERE nume = 'Szabo';
```

	CRESTERE SALARIALA
1	6100

```
select id_angajat, nume, prenume, id_functie,  
nvl(to_char(id_manager), 'Presedintele nu are manager') id_manager  
from angajati_proiect  
where id_departament = 10;
```

The screenshot shows the ASE-Ora SQL Workbench interface. The top window is titled 'ANGAJATI_PROIECT' and contains the SQL code. The bottom window is titled 'Query Result' and displays the result of the query, which lists two employees: Dinu Ana and Mitu Alexandru, along with their manager information.

```
1 select id_angajat, nume, prenume, id_functie,  
2 nvl(to_char(id_manager), 'Presedintele nu are manager') id_manager  
3 from angajati_proiect  
4 where id_departament = 10;  
5
```

	ID_ANGAJAT	NUME	PRENUME	ID_FUNCTIE	ID_MANAGER
1	100	Dinu	Ana	AD-PRES	Presedintele nu are manager
2	101	Mitu	Alexandru	AD-VP	100

Szabo Alexandru-Ştefan, grupa 1060

```
select count (distinct id_angajat)
"ANGAJATI IT"
from angajati_proiect
where id_functie like '%IT%';
```

The screenshot shows the ASE-Ora SQL Workbench interface. The title bar says "ASE-Ora" and "ANGAJATI_PROIECT". The main area is a "Worksheet" tab showing the following SQL code:

```
1 select count (distinct id_angajat)
2 "ANGAJATI IT"
3 from angajati_proiect
4 where id_functie like '%IT%';
```

Below the code, there are tabs for "Script Output" and "Query Result". The "Query Result" tab shows the output:

	ANGAJATI IT
1	10

SQL toolbar icons are visible at the top of the window.

```
select sum (salariu)
"SALARIIILE HR"
from angajati_proiect
where id_functie like '%HR%';
```

The screenshot shows the ASE-Ora SQL Workbench interface. The title bar says "ASE-Ora" and "ANGAJATI_PROIECT". The main area is a "Worksheet" tab showing the following SQL code:

```
1 select sum (salariu)
2 "SALARIIILE HR"
3 from angajati_proiect
4 where id_functie like '%HR%';
```

Below the code, there are tabs for "Script Output" and "Query Result". The "Query Result" tab shows the output:

	SALARIIILE HR
1	31500

SQL toolbar icons are visible at the top of the window.

6. Parcurgerea structurilor ierarhice:

1 exemplu TOP-DOWN

1 exemplu BOTTOM-UP sau DIRECT PE UN ANUMIT NIVEL

```
SELECT LEVEL, LPAD('-----', LEVEL)|| nume FROM angajati_proiect
```

```
CONNECT BY PRIOR id_angajat = id_manager
```

```
START WITH id_angajat= 100;
```

The screenshot shows the Oracle SQL Developer interface. In the top navigation bar, there are tabs for ASE-Ora and ANGAJATI_PROJECT. Below the tabs, there are icons for file operations, search, and help.

The main area has two tabs: Worksheet and Query Builder. The Worksheet tab contains the following SQL code:

```
1 SELECT LEVEL, LPAD('-----', LEVEL)|| nume FROM angajati_proiect
2 CONNECT BY PRIOR id_angajat = id_manager
3 START WITH id_angajat= 100;
4
```

Below the code, the Query Result tab displays the output. The output is a table with three columns: LEVEL, LPAD('-----', LEVEL)||NUME. The data is as follows:

LEVEL	LPAD('-----', LEVEL) NUME
1	1 -Dinu
2	2 --Mitu
3	3 ---Micloiu
4	4 ----Ciur
5	5 -----Radu
6	4 ----Tudorache
7	5 -----Mitrea
8	5 -----Nan
9	3 ---Ezaru
10	4 ----Birzan
11	5 -----Ionescu
12	4 ----Nitu
13	5 -----Gaita
14	5 -----Pana
15	3 ---Iancu
16	4 ----Raduta
17	4 ----Ionita
18	5 -----Popescu
19	3 ---Stoicescu
20	4 ----Szabo
21	5 -----Georgescu
22	5 -----Radu
23	3 ---Dragan
24	4 ----Ionescu
25	5 -----Petria
26	6 -----Merla
27	7 -----Kurzberg
28	3 ---Spiru
29	4 ----Cirstea
30	5 -----Tanasescu
31	6 -----Cantar
32	7 -----Nitu

At the bottom of the results, it says "All Rows Fetched: 32 in 0.228 seconds".

```
SELECT id_angajat, nume, id_manager, LEVEL FROM angajati_proiect  
CONNECT BY id_angajat = PRIOR id_manager  
START WITH nume= 'Kurzberg'  
ORDER BY LEVEL;
```

The screenshot shows the Oracle SQL Developer interface. The top window is titled 'ANGAJATI_PROIECT' and contains the SQL code for a hierarchical query. The bottom window is titled 'Query Result' and displays the resulting data from the query.

ID_ANGAJAT	NUME	ID_MANAGER	LEVEL
1	Kurzberg	126	1
2	Merla	125	2
3	Petria	124	3
4	Ionescu	122	4
5	Dragan	101	5
6	Mitu	100	6
7	Dinu	(null)	7

7. Un exemplu DECODE

Un exemplu CASE

```
select nume, prenume, id_functie,  
(case  
when id_functie like 'IT%' then 250  
when id_functie like 'IP%' then 150  
else 0  
end) + salariu "SALARIU CU BONUS"  
from angajati_proiect;
```

The screenshot shows a SQL development environment with the following interface elements:

- Toolbar:** Includes icons for Run, Save, Undo, Redo, Copy, Paste, and others.
- Tab Bar:** Shows "ASE-Ora" and "ANGAJATI_PROJECT".
- Worksheet Tab:** Active tab, showing the query code.
- Query Builder Tab:** Available tab.
- Code Area:** Displays the following SQL query:

```
1 | select nume, prenume, id_functie,
2 |   (case
3 |     when id_functie like 'IT%' then 250
4 |     when id_functie like 'IP%' then 150
5 |     else 0
6 |   end) + salariu "SALARIU CU BONUS"
7 |   from angajati_proiect;
8 | 
```
- Script Output Tab:** Shows the status "All Rows Fetched: 32 in 0.017 seconds".
- Query Result Tab:** Active tab, displaying the results of the query in a grid format.
- Result Grid:** Contains 32 rows of data with columns: ID (numbered 5 to 32), NUME, PRENUME, ID_FUNCTIE, and SALARIU CU BONUS. The data is as follows:

ID	NUME	PRENUME	ID_FUNCTIE	SALARIU CU BONUS
5	Tudorache	Andrei	FR_ANG	5100
6	Radu	Catalina	FR_ANG	4500
7	Mitrea	Bogdan	FR_ANG	4600
8	Nan	Stefan	FR_ANG	4400
9	Ezaru	Radu	HR_MAN	7600
10	Birzan	Adelin	HR_ANG	5100
11	Nitu	Oana	HR_ANG	5100
12	Ionescu	Vlad	HR_ANG	4700
13	Gaita	Stefan	HR_ANG	4500
14	Pana	Adrian	HR_ANG	4500
15	Iancu	Andrei	IP_MAN	8050
16	Stoicescu	Stefan	IP_MAN	7750
17	Raduta	Andrei	IP_ANG	5250
18	Ionita	Maria	IP_ANG	5150
19	Popescu	Mara	IP_ANG	4850
20	Szabo	Alexandru	IP_ANG	5250
21	Georgescu	Cosmina	IP_ANG	5050
22	Radu	Steluta	IP_ANG	4950
23	Dragan	Andrei	IT_MAN	8250
24	Spiru	Andrei	IT_MAN	8050
25	Ionescu	Andrei	IT_ANG	5750
26	Petria	Cristian	IT_ANG	5650
27	Merla	Antoniu	IT_ANG	5550
28	Kurzberg	Sarah	IT_ANG	5450
29	Cirstea	Andrei	IT_ANG	5750
30	Tanasescu	Alexandru	IT_ANG	5650
31	Cantar	Nicholas	IT_ANG	5550
32	Nitu	Vlad	IT_ANG	5450

```
select nume, prenume, id_functie,  
decode(id_functie, 'IT_ANG', 250, 'IT_MAN', 250,  
'IP_ANG', 150, 'IP_MAN', 150, 0)  
+ salariu "SALARIU CU BONUS"  
from angajati_proiect;
```

8. Un exemplu oricare din UNION sau INTERSECT sau MINUS

```
select * from angajati_proiect where id_functie like 'IT%'  
minus  
select * from angajati_proiect where id_functie like '%MAN';
```

The screenshot shows the Oracle SQL Developer interface. The top window displays the query:

```
1 select * from angajati_proiect where id_functie like 'IT%'  
2 minus  
3 select * from angajati_proiect where id_functie like '%MAN';
```

The bottom window shows the results of the query execution:

ID_ANGAJAT	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERE	DATA_ANGAJARE	SALARIU	ID_FUNCTIE	ID_DEPARTAMENT	ID_MANAGER	
1	124	Ionescu	Andrei	andreiionescu@gmail.com	0721.340.848	01-DEC-02	02-MAR-21	5500	IT_ANG	50	122
2	125	Petria	Cristian	cristianpetria@gmail.com	0725.207.881	12-OCT-02	12-APR-21	5400	IT_ANG	50	124
3	126	Merla	Antoniu	antoniumerla@gmail.com	0729.959.422	13-DEC-01	20-MAY-21	5300	IT_ANG	50	125
4	127	Kurzberg	Sarah	sarahkurzberg@yahoo.ro	0758.357.483	18-JUN-02	24-JUN-21	5200	IT_ANG	50	126
5	128	Cirstea	Andrei	andreicirstea@yahoo.ro	0727.940.042	04-JUL-02	10-MAR-21	5500	IT_ANG	50	123
6	129	Tanasescu	Alexandru	alextanasescu@gmail.com	0726.031.135	21-MAR-02	13-APR-21	5400	IT_ANG	50	128
7	130	Cantar	Nicholas	nicholascantar@gmail.com	0737.142.246	20-DEC-02	01-MAY-21	5300	IT_ANG	50	129
8	131	Nitu	Vlad	vladnitu@gmail.com	0748.253.357	16-JAN-02	30-JUN-21	5200	IT_ANG	50	130

9. 1 exemplu VIEW (tabele virtuale)

1 exemplu de indecsi

1 exemplu de secventa

Szabo Alexandru-Ştefan, grupa 1060

```
CREATE OR REPLACE VIEW v_angajati_proiect_10
AS SELECT * FROM angajati_proiect
WHERE id_departament = 10
WITH READ ONLY;
```

```
SELECT * FROM v_angajati_proiect_10;
```

```
UPDATE v_angajati_proiect_10
SET salariu = salariu + 1000;
```

The screenshot shows the Oracle SQL Developer interface. In the top tab bar, there are two tabs: 'ASE-Ora' and 'ANGAJATI_PROJECT'. The main area is a 'Worksheet' tab where the following SQL code is entered:

```
1 CREATE OR REPLACE VIEW v_angajati_proiect_10
2 AS SELECT * FROM angajati_proiect
3 WHERE id_departament = 10
4 WITH READ ONLY;
5
6 SELECT * FROM v_angajati_proiect_10;
```

Below the worksheet, there are two tabs: 'Script Output' and 'Query Result'. The 'Query Result' tab is selected, showing the output of the last query:

ID_ANGAJAT	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERE	DATA_ANAJARE	SALARIU	ID_FUNCTIE	ID_DEPARTAMENT	ID_MANAGER	
1	100	Dinu	Ana	anadinu@gmail.com	0745.479.299	12-AUG-02	10-DEC-20	10100	AD-PRES	10	(null)
2	101	Mitu	Alexandru	alexmitu@gmail.com	0742.225.131	19-JUL-02	10-DEC-20	9100	AD-VP	10	100

The screenshot shows the Oracle SQL Developer interface again. The 'Worksheet' tab contains the following SQL code:

```
8 UPDATE v_angajati_proiect_10
9 SET salariu = salariu + 1000;
```

The 'Query Result' tab is selected, showing the error message:

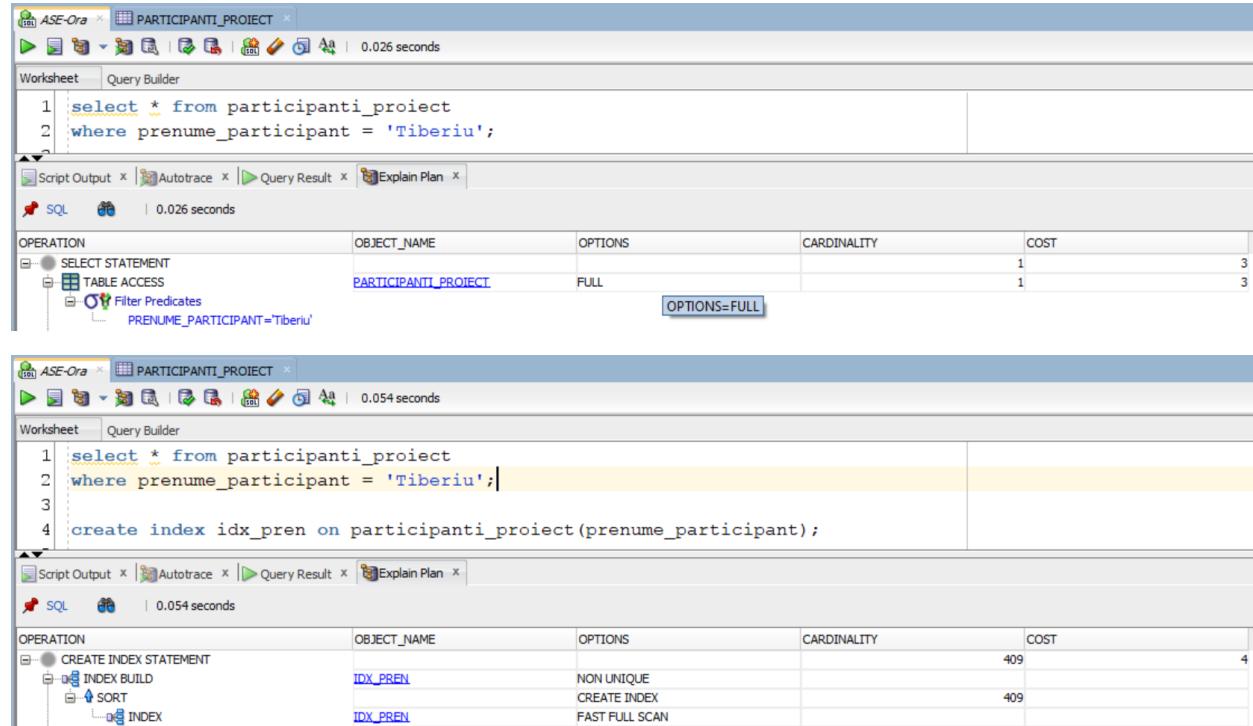
```
Error starting at line : 8 in command -
UPDATE v_angajati_proiect_10
SET salariu = salariu + 1000
Error at Command Line : 9 Column : 5
Error report -
SQL Error: ORA-42399: cannot perform a DML operation on a read-only view
42399.0000 - "cannot perform a DML operation on a read-only view"

Error starting at line : 8 in command -
UPDATE v_angajati_proiect_10
SET salariu = salariu + 1000
Error at Command Line : 9 Column : 5
Error report -
SQL Error: ORA-42399: cannot perform a DML operation on a read-only view
42399.0000 - "cannot perform a DML operation on a read-only view"
```

Szabo Alexandru-Ştefan, grupa 1060

```
select * from participanti_proiect  
where prenume_participant = 'Tiberiu';
```

```
create index idx_pren on participanti_proiect(prenume_participant);  
  
drop index idx_pren;
```



The screenshot shows two separate sessions in Oracle SQL Developer. Both sessions are connected to the 'PARTICIPANTI_PROJECT' schema.

Session 1 Explain Plan:

OPERATION	OBJECT_NAME	OPTIONS	CARDINALITY	COST
SELECT STATEMENT	PARTICIPANTI_PROJECT	FULL	1	3
TABLE ACCESS			1	3
Filter Predicates	PRENUME_PARTICIPANT='Tiberiu'	OPTIONS=FULL		

Session 2 Explain Plan:

OPERATION	OBJECT_NAME	OPTIONS	CARDINALITY	COST
CREATE INDEX STATEMENT	IDX_PREN	NON UNIQUE	409	4
INDEX BUILD		CREATE INDEX	409	
SORT		FAST FULL SCAN		
INDEX	IDX_PREN			

```
CREATE SEQUENCE seq_contrib  
START WITH 250 INCREMENT BY 10  
MAXVALUE 1500 NOCYCLE;
```

```
INSERT INTO contributii_proiect  
VALUES (7, 4, 2, 'donatie', seq_contrib.nextval);  
  
INSERT INTO contributii_proiect  
VALUES (8, 5, 2, 'donatie', seq_contrib.nextval);
```

The screenshot shows the ASE-Oracle SQL Workbench interface. The top window is titled 'CONTRIBUTII_PROJECT' and contains a SQL script. The bottom window is titled 'Query Result' and displays the results of the executed query.

```
1 CREATE SEQUENCE seq_contrib
2 START WITH 250 INCREMENT BY 10
3 MAXVALUE 1500 NOCYCLE;
4
5 INSERT INTO contributii_proiect
6 VALUES (7, 4, 2, 'donatie', seq_contrib.nextval);
7
8 INSERT INTO contributii_proiect
9 VALUES (8, 5, 2, 'donatie', seq_contrib.nextval);
10
11 SELECT * FROM contributii_proiect;
```

Script Output | All Rows Fetched: 8 in 0.006 seconds

ID_CONTRIBUTIE	ID_PARTICIPANT	ID_PROIECT	TIP_CONTRIBUTIE	VALOARE_IN_BANI
1	1	1	1 jucarii	(null)
2	2	2	1 dulciuri	(null)
3	3	4	2 donatie	1000
4	4	5	2 donatie	1400
5	5	6	3 mancare si bauturi	(null)
6	6	7	3 donatie	800
7	7	4	2 donatie	250
8	8	5	2 donatie	260