

Proiect SGBD

Baze de date – Gări România

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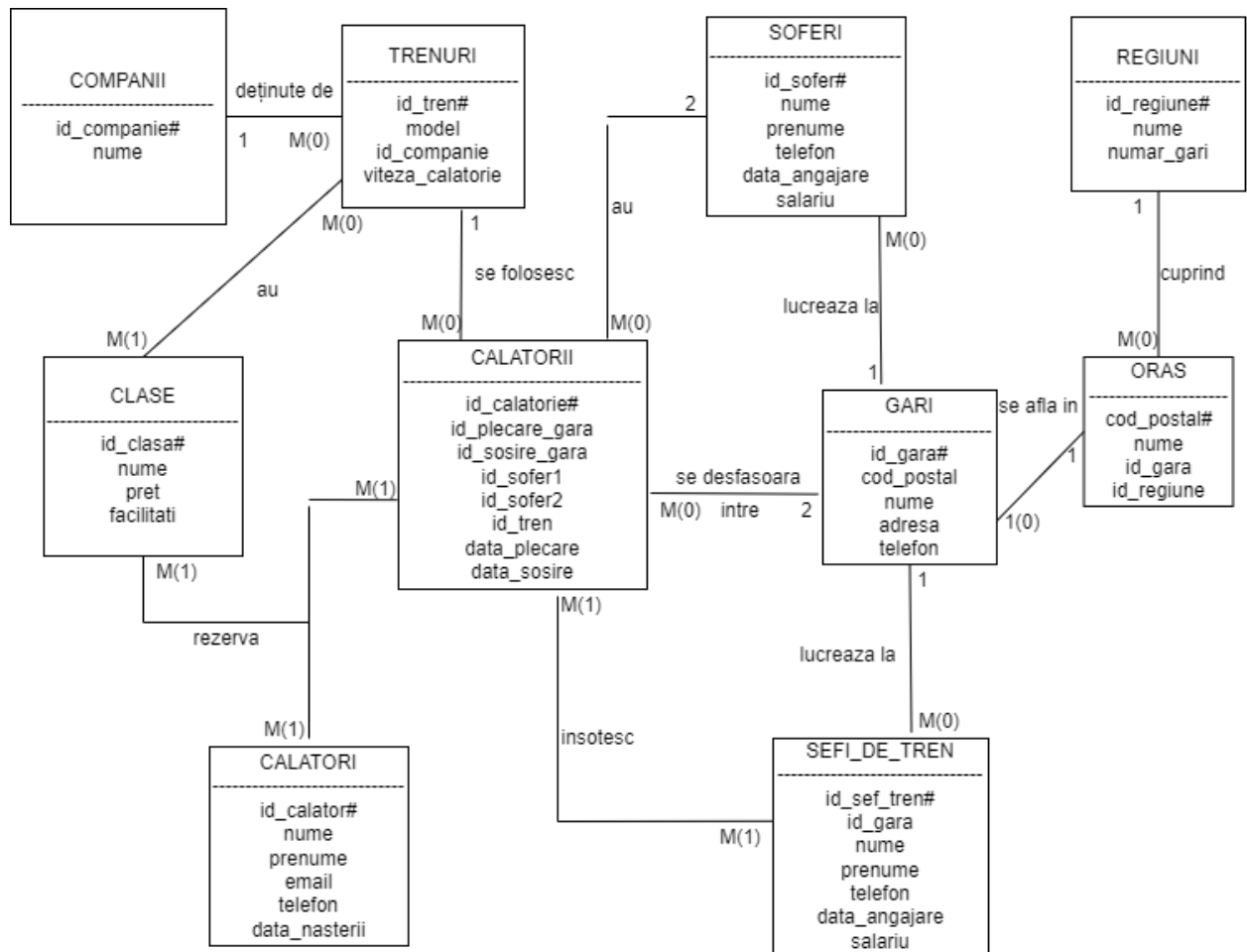
-grupa 241

1)Prezentati pe scurt baza de date.

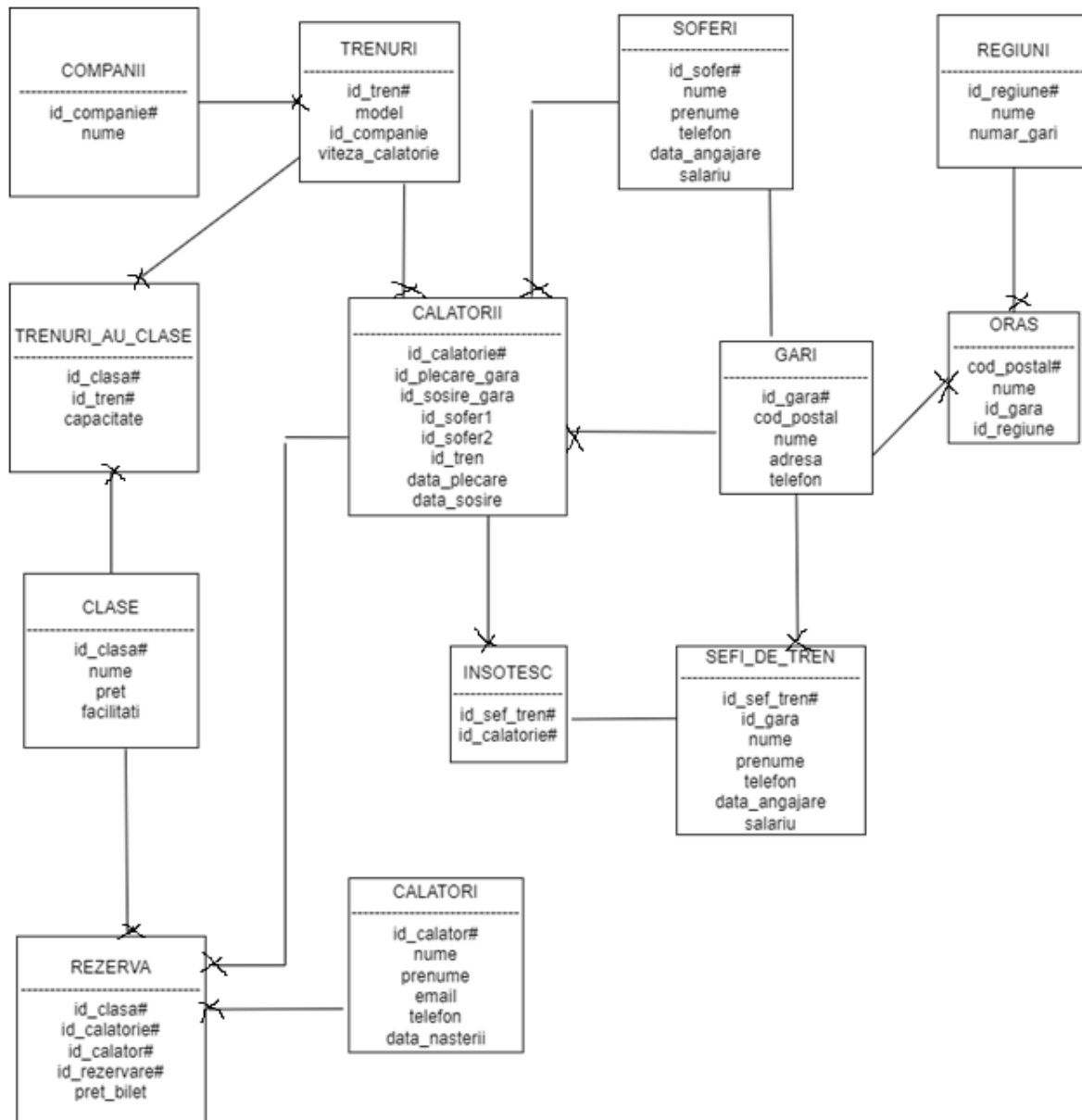
Această bază de date va gestiona gările din România, respectiv toate călătoriile interne. Fiecare oraș are o gară, orașele aparținând unei regiuni. Fiecare gară are angajații săi. Sunt angajați șoferii(sau „mecanicii de locomotivă”), șefii de tren și care vor reprezenta echipajul necesar unei călătorii. Un șofer și șefii de tren pot fi angajați unei singure companii de transport pe șine, iar o companie deține diferite modele de trenuri. Gările nu dețin propriile trenuri, așadar nu există nicio legătură între acestea, decât chiria plătită de companii pentru a-și desfășura activitatea în gara respectivă.

Pasagerii pot să-și rezerve locuri în diferite clase la care doresc să călătorească. Prețul билетelor diferă de la o clasă la alta. Informațiile pe care călătorii le vor cunoaște sunt următoarele: gara de la locul plecării, gara de la locul sosirii, trenul condus, data și ora plecării, respectiv sosirii.

2) Diagrama entitate-relație ERD



3) Diagrama conceptuală



4) Implementarea diagramei conceptuale in Oracle

--cream tabelele din diagrama conceptuala

```
create table COMPANII
```

```
(id_companie number(4) CONSTRAINT companii_pk PRIMARY  
KEY,
```

```
nume varchar2(30) NOT NULL);
```

```
create table TRENURI
```

```
(id_tren number(4) CONSTRAINT trenuri_pk PRIMARY KEY,
```

```
model varchar2(30) NOT NULL,
```

```
id_companie number(4) NOT NULL,
```

```
capacitate number(3),
```

```
viteza_calatorie number(4));
```

```
create table GARI
```

```
(id_gara varchar2(3) CONSTRAINT gari_pk PRIMARY KEY,
```

```
cod_postal varchar2(6) NOT NULL,
```

```
nume varchar2(55) NOT NULL,
```

```
adresa varchar2(50),
```

```
telefon varchar2(10));
```

create table SOFERI

(id_sofer number(4) CONSTRAINT soferi_pk PRIMARY KEY,

id_gara varchar2(3),

nume varchar2(30) NOT NULL,

prenume varchar2(30),

telefon varchar2(10) NOT NULL,

data_angajare date DEFAULT sysdate,

salariu number(6),

CONSTRAINT soferi_gara_fk FOREIGN KEY(id_gara)

REFERENCES GARI(id_gara));

create table REGIUNI

(id_regiune varchar2(3) CONSTRAINT regiuni_pk PRIMARY KEY,

nume varchar2(15) NOT NULL,

numar_gari number(2));

create table ORAS

(cod_postal varchar2(6) CONSTRAINT oras_pk PRIMARY KEY,

```
nume varchar2(15) NOT NULL,  
id_gara varchar2(3),  
id_regiune varchar2(3));
```

```
create table SEFI_DE_TREN  
(id_sef_tren number(4) CONSTRAINT sef_tren_pk PRIMARY  
KEY,  
id_gara varchar2(3),  
nume varchar2(30) NOT NULL,  
prenume varchar2(30),  
telefon varchar2(10) NOT NULL,  
data_angajare date DEFAULT sysdate,  
salariu number(6),  
CONSTRAINT sef_tren_gara_fk FOREIGN KEY(id_gara)  
REFERENCES GARI(id_gara));
```

```
create table CLASE  
(id_clasa number(2) CONSTRAINT clase_pk PRIMARY KEY,  
nume varchar2(20) NOT NULL,
```

```
pret number(4),  
facilitati varchar2(60));
```

```
CREATE TABLE CALATORI
```

```
(id_calator number(6) CONSTRAINT calatori_pk PRIMARY KEY,  
nume varchar2(30) NOT NULL,  
prenume varchar2(30),  
email varchar2(30),  
telefon varchar2(10) NOT NULL,  
data_nasterii date);
```

```
CREATE TABLE CALATORII
```

```
(id_calatorie number(6) CONSTRAINT calatorii_pk PRIMARY  
KEY,  
id_plecare_gara varchar2(3) NOT NULL,  
id_sosire_gara varchar2(3) NOT NULL,  
id_sofer1 number(4) NOT NULL,  
id_sofer2 number(4) NOT NULL,  
id_tren number(4) NOT NULL,
```



```
data_plecare date,  
data_sosire date,  
CONSTRAINT calatorii_gara_fk1 FOREIGN KEY(id_plecare_gara)  
REFERENCES GARI(id_gara),  
CONSTRAINT calatorii_gara_fk2 FOREIGN KEY(id_sosire_gara)  
REFERENCES GARI(id_gara),  
CONSTRAINT calatorii_soferi_fk1 FOREIGN KEY(id_sofer1)  
REFERENCES SOFERI(id_sofer),  
CONSTRAINT calatorii_soferi_fk2 FOREIGN KEY(id_sofer2)  
REFERENCES SOFERI(id_sofer),  
CONSTRAINT valid_data_sosire CHECK(data_sosire >  
data_plecare),  
CONSTRAINT distinct_gara CHECK (id_plecare_gara !=  
id_sosire_gara),  
CONSTRAINT distinct_sofer CHECK (id_sofer1 != id_sofer2)  
);
```

--dupa ce am creat tabelul ORASE, marcam cheia externa in
GARI

```
ALTER TABLE GARI
```

```
ADD CONSTRAINT gari_orase_fk FOREIGN KEY(cod_postal)
```

```
REFERENCES ORAS(cod_postal);
```

--odata creat tabelul TRENURI , marcam cheia externa in
CALATORII

```
ALTER TABLE CALATORII
```

```
ADD CONSTRAINT calatorii_trenuri_fk FOREIGN KEY(id_tren)
```

```
REFERENCES TRENURI(id_tren);
```

--odata creat tabelul TRENURI , marcam cheia externa din
CALATORII in TRENURI

```
ALTER TABLE TRENURI
```

```
ADD CONSTRAINT trenuri_companii_fk FOREIGN  
KEY(id_companie)
```

```
REFERENCES COMPANII(id_companie);
```

```
CREATE TABLE TRENURI_AU_CLASE
(id_clasa number(2),
id_tren number(4),
capacitate number(3),
CONSTRAINT trenuri_au_clase_clase_fk FOREIGN KEY(id_clasa)
REFERENCES CLASE(id_clasa),
CONSTRAINT trenuri_au_clase_trenuri_fk FOREIGN
KEY(id_tren)
REFERENCES TRENURI(id_tren),
CONSTRAINT trenuri_au_clase_pk PRIMARY KEY(id_clasa,
id_tren));
```

```
CREATE TABLE REZERVA
(id_clasa number(2),
id_calatorie number(6),
id_calator number(6),
id_rezervare number(8),
pret_bilet number(4),
```

```
CONSTRAINT rezerva_clase_fk FOREIGN KEY(id_clasa)
REFERENCES CLASE(id_clasa),
CONSTRAINT rezerva_calatorii_fk FOREIGN KEY(id_calatorie)
REFERENCES CALATORII(id_calatorie),
CONSTRAINT rezerva_calatori_fk FOREIGN KEY(id_calator)
REFERENCES CALATORI(id_calator),
CONSTRAINT rezerva_pk PRIMARY KEY(id_clasa, id_calatorie,
id_calator, id_rezervare));
--primary key in REZERVA
```

```
CREATE TABLE INSOTESC
(id_sef_tren number(4),
id_calatorie number(6),
CONSTRAINT insotesc_sef_tren_fk1 FOREIGN KEY(id_sef_tren)
REFERENCES SEFI_DE_TREN(id_sef_tren),
CONSTRAINT insotesc_calatorii_fk FOREIGN KEY(id_calatorie)
REFERENCES CALATORII(id_calatorie),
CONSTRAINT insotesc_pk PRIMARY KEY(id_sef_tren,
id_calatorie));
```

5)Adaugarea informatiilor in tabelele create.

```
INSERT INTO REGIUNI  
VALUES ('MUN', 'Muntenia', 1);
```

```
INSERT INTO REGIUNI  
VALUES ('TRA', 'Transilvania', 2);
```

```
INSERT INTO REGIUNI  
VALUES ('MOL', 'Moldova', 1);
```

```
INSERT INTO REGIUNI  
VALUES ('DOB', 'Dobrogea', 1);
```

```
INSERT INTO REGIUNI  
VALUES ('BAN', 'Banat', 1);
```

```
INSERT INTO REGIUNI
```

```
VALUES ('OLT', 'Oltenia', 1);
```

```
INSERT INTO REGIUNI
```

```
VALUES ('CRI', 'Crisana', 1);
```

```
INSERT INTO REGIUNI
```

```
VALUES ('MAR', 'Maramures', 0);
```

ID_REGIUNE	NUME	NUMAR_GARI
MUN	Muntenia	1
TRA	Transilvania	2
HOL	Moldova	1
DOB	Dobrogea	1
BAN	Banat	1
OLT	Oltenia	1
CRI	Crisana	1
MAR	Maramures	0

```
INSERT INTO ORAS
```

```
VALUES (010856, 'Bucuresti', 'BUC', 'MUN');
```

INSERT INTO ORAS

VALUES (500009, 'Brasov', 'BRV', 'TRA');

INSERT INTO ORAS

VALUES (700028, 'Iasi', 'IAS', 'MOL');

INSERT INTO ORAS

VALUES (900001, 'Constanta', 'CND', 'DOB');

INSERT INTO ORAS

VALUES (300013, 'Timisoara', 'TIM', 'BAN');

INSERT INTO ORAS

VALUES (310010, 'Arad', 'ARD', 'CRI');

INSERT INTO ORAS

VALUES (210235, 'Targu-Jiu', 'TGJ', 'OLT');

INSERT INTO ORAS

VALUES (331005, 'Hunedoara', 'HND', 'TRA');

INSERT INTO ORAS

VALUES (110001, 'Pitesti', NULL, 'MUN');

INSERT INTO ORAS

VALUES (530002, 'Miercurea-Ciuc', NULL, 'TRA');

COD_POSTAL	NUME	ID_GARA	ID_REGIUNE
10856	Bucuresti	BUC	MUN
530002	Miercurea-Ciuc	-	TRA
700028	Iasi	IAS	MOL
900001	Constanta	CND	DOB
300013	Timisoara	TIM	BAN
310010	Arad	ARD	CRI
210235	Targu-Jiu	TGJ	OLT
331005	Hunedoara	HND	TRA
110001	Pitesti	-	MUN
500009	Brasov	BRV	TRA

INSERT INTO GARI

VALUES('BUC', 010856, 'Gara de Nord Bucuresti', 'Strada Garii de Nord', '0353621448');

INSERT INTO GARI

VALUES('BRV', 500009, 'Gara din Brasov', 'Strada Mihai Eminescu 1-3', '0253698112');

INSERT INTO GARI

VALUES('IAS', 700028, 'Gara de la Iasi', 'Strada Andrei Neagu 67-69', '0252641203');

INSERT INTO GARI

VALUES('CND', 900001, 'Lucian Blaga train station', 'Strada Ovazului Dulce 15', '0247156893');

INSERT INTO GARI

VALUES('TIM', 300013, 'Aurel Vlaicu gara de sud', 'Strada Apusului 78', '0241587320');

INSERT INTO GARI

VALUES('ARD', 310010, 'Arad Gara Vest', 'Calea Popicelor Vesele', '0234567891');

INSERT INTO GARI

VALUES('TGJ', 210235, 'Gara din GORJ', 'Strada Republicii 27', '0764474671');

INSERT INTO GARI

VALUES('HND', 331005, 'Hunedoara train ', 'Soseaua Floare Albastra 16-22', '0798654175');

ID_GARA	COD_POSTAL	NUME	ADRESA	TELEFON
BUC	10856	Gara de Nord Bucuresti	Strada Garii de Nord	0353621448
BRV	500009	Gara din Brasov	Strada Mihai Eminescu 1-3	0253698112
IAS	700028	Gara de la Iasi	Strada Andrei Neagu 67-69	0252641203
CND	900001	Lucian Blaga train station	Strada Ovazului Dulce 15	0247156893
TIM	300013	Aurel Vlaicu gara de sud	Strada Apusului 78	0241587320
ARD	310010	Arad Gara Vest	Calea Popicelor Vesele	0234567891
TGJ	210235	Gara din GORJ	Strada Republicii 27	0764474671
HND	331005	Hunedoara train	Soseaua Floare Albastra 16-22	0798654175

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'BUC', 'Andreescu', 'Andrei',
'0765448912', to_date('01-06-2017','DD-MM-YYYY'), 102300);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'BUC', 'Diaconu', 'Alex',
'0746158799', to_date('20-08-2018','DD-MM-YYYY'), 140340);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'TIM', 'Popovici', 'Maria',
'0713665284', to_date('27-02-2017','DD-MM-YYYY'), 600000);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'TIM', 'Haiduc', 'Luiza',
'0771205664', to_date('16-09-2020','DD-MM-YYYY'), 308600);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'BRV', 'Adrianescu', 'David',
'0786221540', to_date('30-11-2011','DD-MM-YYYY'), 401030);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'BRV', 'Minici', 'Marian',
'0756332014', to_date('13-10-2015','DD-MM-YYYY'), 387510);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'BRV', 'Popescu', 'Razvan',
'0253661479', to_date('30-05-2021','DD-MM-YYYY'), 275500);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'IAS', 'Cristescu', 'Iosif',
'0714630175', to_date('21-02-2019','DD-MM-YYYY'), 250789);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'IAS', 'Mirea', 'Antonia',
'0711247965', to_date('01-01-2015','DD-MM-YYYY'), 650990);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'CND', 'Paun', 'Robert',
'0741226985', to_date('03-11-2019','DD-MM-YYYY'), 372999);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'CND', 'Aulescu', 'Matei',
'0753210559', to_date('01-04-2022','DD-MM-YYYY'), 35000);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'CND', 'Aristid', 'Mihaela',
'077232146', to_date('12-08-2021','DD-MM-YYYY'), 99999);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'TGJ', 'Ghita', 'Cosmin',
'0792578600', to_date('21-07-2016','DD-MM-YYYY'), 500000);

INSERT INTO SOFERI

VALUES (SEQ_SOFERI.NEXTVAL, 'TGJ', 'Bonescu', 'Vlad',
'0353621004', to_date('13-05-2011','DD-MM-YYYY'), 450770);

ID_SOFER	ID_GARA	NUME	PRENUME	TELEFON	DATA_ANGAJARE	SALARIU
120	BUC	Andrescu	Andrei	0765448912	01-JUN-17	102300
130	BUC	Diaconu	Alex	0746158799	20-AUG-18	140340
140	TIM	Popovici	Maria	0713665284	27-FEB-17	600000
150	TIM	Haiduc	Luiza	0771205664	16-SEP-20	308600
160	BRV	Adrianescu	David	0786221540	30-NOV-11	401030
170	BRV	Minici	Marian	0756332014	13-OCT-15	387510
180	BRV	Popescu	Razvan	0253661479	30-MAY-21	275500
190	IAS	Cristescu	Iosif	0714630175	21-FEB-19	250789
200	IAS	Mirea	Antonia	0711247965	01-JAN-15	650990
210	CND	Paun	Robert	0741226985	03-NOV-19	372999
220	CND	Aulescu	Matei	0753210559	01-APR-22	35000
230	CND	Aristid	Mihaela	077232146	12-AUG-21	99999
240	TGJ	Ghita	Cosmin	0792578600	21-JUL-16	500000

INSERT INTO SEFI_DE_TREN

VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BUC', 'Ionescu',
'Gabriela', '0745669823', to_date('20-12-2009','DD-MM-YYYY'),
80000);

INSERT INTO SEFI_DE_TREN

VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BUC', 'Marinescu',
'Stefania', '0703126445', to_date('30-08-2013','DD-MM-YYYY'),
80000);

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BUC', 'Usurelu', 'Horia',  
'0723665801', to_date('29-02-2018','DD-MM-YYYY'), 60000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BRV', 'Raducanu',  
'Mihnea', '0765231002', to_date('23-05-2019','DD-MM-YYYY'),  
80500);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BRV', 'Avramescu',  
'Antonela', '0713247889', to_date('24-02-2022','DD-MM-YYYY'),  
15000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'TIM', 'Danaricu', 'Radu',  
'0465322102', to_date('13-05-2019','DD-MM-YYYY'), 17000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'TIM', 'Enescu',  
'Florentiu', '0253620112', to_date('30-12-2014','DD-MM-YYYY'),  
90000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'IAS', 'Nedelcu',  
'Aleandru', '0788654123', to_date('28-06-2020','DD-MM-YYYY'),  
12000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'IAS', 'Stoian', 'Traianis',  
'0735662147', to_date('07-07-2017','DD-MM-YYYY'), 3500);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'CND', 'Lemnaru',  
'Anaissa', '0741223569', to_date('11-12-2020','DD-MM-YYYY'),  
33999);
```

```
INSERT INTO SEFI_DE_TREN
```



```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'CND', 'Cotiga',  
'Camelia', '0700005925', to_date('10-10-2011','DD-MM-YYYY'),  
85000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'TGJ', 'Mechie',  
'LEONARD', '0768320556', to_date('16-10-2009','DD-MM-  
YYYY'), 42000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'HND', 'Vilceanu',  
'Dragos', '0748326995', to_date('12-12-2012','DD-MM-YYYY'),  
76000);
```

ID_SEF_TREN	ID_GARA	NUME	PRENUME	TELEFON	DATA_ANGAJARE	SALARIU
10	BUC	Ionescu	Gabriela	0745669823	20-DEC-09	80000
20	BUC	Marinescu	Stefania	0703126445	30-AUG-13	80000
40	BRV	Raducanu	Mihnea	0765231002	23-MAY-19	80500
50	BRV	Avramescu	Antonela	0713247889	24-FEB-22	15000
60	TIM	Danaricu	Radu	0465322102	13-MAY-19	17000
70	TIM	Enescu	Florentiu	0253620112	30-DEC-14	90000
80	IAS	Nedelcu	Aleandru	0788654123	28-JUN-20	12000
90	IAS	Stoian	Traianis	0735662147	07-JUL-17	3500
100	CND	Lemnaru	Anaisa	0741223569	11-DEC-20	33999
110	CND	Cotiga	Camelia	0700005925	10-OCT-11	85000
120	TGJ	Mechie	LEONARD	0768320556	16-OCT-09	42000
130	HND	Vilceanu	Dragos	0748326995	12-DEC-12	76000

```
INSERT INTO COMPANII
VALUES (120, 'Softtrans');
```

```
INSERT INTO COMPANII
VALUES (121, 'Regio Calatori');
```

```
INSERT INTO COMPANII
```

```
VALUES (122, 'Astra Trans Carpatic');
```

```
INSERT INTO COMPANII
```

```
VALUES (123, 'CFR');
```

```
INSERT INTO COMPANII
```

```
VALUES (124, 'Interrail');
```

```
INSERT INTO COMPANII
```

```
VALUES (125, 'InterRegional');
```

ID_COMPANIE	NUME
120	Softrans
121	Regio Calatori
122	Astra Trans Carpatic
123	CFR
124	Interrail
125	InterRegional

```
INSERT INTO TRENURI  
VALUES (1000, 'ROCO_HO 2000', 120, 139, 200);
```

```
INSERT INTO TRENURI  
VALUES (1001, 'MARKLIN-HO 123', 120, 150, 150);
```

```
INSERT INTO TRENURI  
VALUES (1002, 'MARKLIN-HO 125', 120, 200, 130);
```

```
INSERT INTO TRENURI  
VALUES (1003, 'ACME-HO 67', 120, 100, 175);
```

```
INSERT INTO TRENURI  
VALUES (1004, 'MARKLIN-HO 127', 121, 150, 155);
```

```
INSERT INTO TRENURI  
VALUES (1005, 'ACME-HO 68', 121, 137, 200);
```

```
INSERT INTO TRENURI
```

```
VALUES (1006, 'LIMA-HO 45', 121, 190, 190);
```

```
INSERT INTO TRENURI
```

```
VALUES (1007, 'LIMA-HO 46', 122, 191, 195);
```

```
INSERT INTO TRENURI
```

```
VALUES (1008, 'ROCO-HO 1200', 122, 241, 170);
```

```
INSERT INTO TRENURI
```

```
VALUES (1009, 'PIKO-HO 556', 123, 191, 200);
```

```
INSERT INTO TRENURI
```

```
VALUES (1010, 'PIKO-HO 600', 124, 180, 220);
```

1000	ROCO-HO 2000	120	139	200
1001	MARKLIN-HO 123	120	150	150
1002	MARKLIN-HO 125	120	200	130
1003	ACME-HO 67	120	100	175
1004	MARKLIN-HO 127	121	150	155
1005	ACME-HO 68	121	137	200
1006	LIMA-HO 45	121	190	190
1007	LIMA-HO 46	122	191	195
1008	ROCO-HO 1200	122	241	170
1009	PIKO-HO 556	123	191	200
1010	PIKO-HO 600	124	180	220

INSERT INTO CALATORII

VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'BRV', 130, 140, 1006, to_date('11-12-2021 07:00','DD-MM-YYYY HH24:MI'), to_date('11-12-2021 07:55','DD-MM-YYYY HH24:MI'));

INSERT INTO CALATORII

VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'IAS', 130, 140, 1002, to_date('24-12-2021 09:00','DD-MM-YYYY HH24:MI'), to_date('24-12-2021 10:05','DD-MM-YYYY HH24:MI'));

INSERT INTO CALATORII

VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'TIM', 130, 140, 1000,
to_date('25-12-2021 12:00','DD-MM-YYYY HH24:MI'),
to_date('25-12-2021 13:00','DD-MM-YYYY HH24:MI'));

INSERT INTO CALATORII

VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'TIM', 130, 140, 1010,
to_date('01-01-2022 21:30','DD-MM-YYYY HH24:MI'),
to_date('01-01-2022 22:30','DD-MM-YYYY HH24:MI'));

INSERT INTO CALATORII

VALUES (SEQ_CALATORII.NEXTVAL, 'BRV', 'IAS', 130, 140, 1003,
to_date('02-01-2022 16:00','DD-MM-YYYY HH24:MI'),
to_date('02-01-2022 16:55','DD-MM-YYYY HH24:MI'));

INSERT INTO CALATORII

VALUES (SEQ_CALATORII.NEXTVAL, 'BRV', 'CND', 150, 160,
1008, to_date('02-01-2022 23:55','DD-MM-YYYY HH24:MI'),
to_date('03-01-2022 00:30','DD-MM-YYYY HH24:MI'));

INSERT INTO CALATORII

```
VALUES (SEQ_CALATORII.NEXTVAL, 'IAS', 'TGJ', 130, 140, 1009,  
to_date('04-01-2022 13:00','DD-MM-YYYY HH24:MI'),  
to_date('04-01-2022 14:10','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'IAS', 'BUC', 120, 130, 1002,  
to_date('05-01-2022 05:30','DD-MM-YYYY HH24:MI'),  
to_date('05-01-2022 06:40','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'TGJ', 'IAS', 150, 160, 1004,  
to_date('20-03-2022 19:30','DD-MM-YYYY HH24:MI'),  
to_date('20-03-2022 20:40','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'TGJ', 'BRV', 150, 160, 1001,  
to_date('22-03-2022 09:45','DD-MM-YYYY HH24:MI'),  
to_date('22-03-2022 10:45','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```



```
VALUES (SEQ_CALATORII.NEXTVAL, 'TIM', 'BUC', 150, 160, 1005,
to_date('30-03-2022 07:40','DD-MM-YYYY HH24:MI'),
to_date('30-03-2022 08:55','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'TIM', 'CND', 150, 160,
1007, to_date('05-04-2022 12:00','DD-MM-YYYY HH24:MI'),
to_date('05-04-2022 13:45','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'ARD', 130, 140,
1003, to_date('11-06-2022 05:55','DD-MM-YYYY HH24:MI'),
to_date('11-06-2022 07:20','DD-MM-YYYY HH24:MI'));
```

ID_CALATORIE	ID_PLECARE_GARA	ID_SOSTIRE_GARA	ID_SOFER1	ID_SOFER2	ID_TREN	DATA_PLECARE	DATA_SOSTIRE
1001	BUC	BRV	130	140	1006	11-DEC-21	11-DEC-21
1002	BUC	IAS	130	140	1002	24-DEC-21	24-DEC-21
1003	BUC	TIM	130	140	1000	25-DEC-21	25-DEC-21
1004	BUC	TIM	130	140	1010	01-JAN-22	01-JAN-22
1005	BRV	IAS	130	140	1003	02-JAN-22	02-JAN-22
1006	BRV	CND	150	160	1008	02-JAN-22	03-JAN-22
1007	IAS	TGJ	130	140	1009	04-JAN-22	04-JAN-22
1008	IAS	BUC	120	130	1002	05-JAN-22	05-JAN-22
1009	TGJ	IAS	150	160	1004	20-MAR-22	20-MAR-22
1010	TGJ	BRV	150	160	1001	22-MAR-22	22-MAR-22
1011	TIM	BUC	150	160	1005	30-MAR-22	30-MAR-22
1012	TIM	CND	150	160	1007	05-APR-22	05-APR-22
1013	BUC	ARD	130	140	1003	11-JUN-22	11-JUN-22

INSERT INTO CLASE

VALUES (01, 'Economica', NULL , 'masuta retractabila');

INSERT INTO CLASE

VALUES (20, 'Business', 100, 'scaune ajustabile si masuta rabatabila');

INSERT INTO CLASE

VALUES (30, 'Cuseta', 200, 'paturi');

INSERT INTO CLASE

VALUES (40, 'Business+', 300, 'business + pachetel');

INSERT INTO CLASE

VALUES (50, 'Clasa intai', 1000, 'clasa intai + pachetel');

ID_CLASA	NUME	PRET	FACILITATI
1	Economica	-	masuta retractabila
20	Business	100	scaune ajustabile si masuta rabatabila
30	Cuseta	200	paturi
40	Business+	300	business + pachetel
50	Clasa intai	1000	clasa intai + pachetel

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Peptan', 'Vlad',
'vladp@yahoo.com', '0758723669', to_date('13-05-2002','dd-
mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Paraschiv', 'Ioana',
'pioana@gmail.com', '0789654112', to_date('20-06-1975','dd-
mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Caraiman', 'Andrei',
'andreic@yahoo.com.com', '0741023558', to_date('05-02-
1992','dd-mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Foanene', 'Bogdan',
'bogdif@yahoo.com', '0741203569', to_date('10-11-2001','dd-
mm-yyyy'));

INSERT INTO CALATORI

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Antonescu', 'Luca',  
'lucaaa@yahoo.com', '0712365478', to_date('21-08-2000','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Brenciu', 'Tudor',  
'tbre@yahoo.com', '0756223001', to_date('14-03-1984','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Girbaciuc', 'Iani',  
'ianig@yahoo.com', '0789445123', to_date('14-07-1995','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Buju', 'David',  
'bujud@gmail.com', '0712345614', to_date('22-01-2003','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Popica', 'Luana',  
'popilu@gmail.com', '0745661230', to_date('27-08-2011','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Bilgar', 'Bianca',  
'bibib@yahoo.com', '0741220365', to_date('10-12-1994','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Popeanga', 'Mariuta',  
'popim@yahoo.com', '0746552398', to_date('12-08-1980','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Gheorghidui', 'Stefan',  
'stefi.g@yahoo.com', '0788895412', to_date('03-03-1971','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Boboc', 'Geanina',  
'geani@yahoo.com', '0721330256', to_date('18-11-2000','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Constantinescu', 'Mircea',  
'ctm.c@yahoo.com', '0456852013', to_date('28-06-1974','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Mursoi', 'Maria',  
'marim@gmail.com', '0145698745', to_date('10-11-2001','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Andreescu', 'Miruna',  
'a.miru@yahoo.com', '0023478965', to_date('12-01-1972','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Tiberiu', 'Andra',  
'tibi.a@yahoo.com', '0321559864', to_date('22-01-1995','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Stoenescu', 'Andreea',  
'stoea@gmail.com', '0123654781', to_date('21-09-1977','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Broscoteanu', 'Elena',  
'brelena@gmail.com', '0123547896', to_date('31-12-1973','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Rusu', 'Cristian',  
'cristianrusuD@gmail.com', '0740332698', to_date('14-01-  
1963','dd-mm-yyyy'));
```

ID_CALATOR	NUME	PRENUME	EMAIL	TELEFON	DATA_NASTERII
1	Peptan	Vlad	vladp@yahoo.com	0758723669	13-MAY-02
2	Paraschiv	Ioana	pioana@gmail.com	0789654112	20-JUN-75
3	Caraiman	Andrei	andreic@yahoo.com.com	0741023558	05-FEB-92
4	Foanene	Bogdan	bogdif@yahoo.com	0741203569	10-NOV-01
5	Antonescu	Luca	lucas@yahoo.com	0712365478	21-AUG-00
6	Brenciu	Tudor	tbre@yahoo.com	0756223001	14-MAR-84
7	Girbaci	Iani	ianig@yahoo.com	0789445123	14-JUL-95
8	Buju	David	burjud@gmail.com	0712345614	22-JAN-03
9	Popica	Luana	popilu@gmail.com	0745661230	27-AUG-11
10	Bilgar	Bianca	bibib@yahoo.com	0741220365	10-DEC-94
11	Popeanga	Mariuta	popin@yahoo.com	0746552398	12-AUG-80
12	Gheorghidiu	Stefan	stefi.g@yahoo.com	0788895412	03-MAR-71
13	Boboc	Geanina	geani@yahoo.com	0721330256	18-NOV-00
14	Constantinescu	Mircea	ctm.c@yahoo.com	0456852013	28-JUN-74
15	Mursoi	Maria	marin@gmail.com	0145698745	10-NOV-01
16	Andreescu	Miruna	a.miru@yahoo.com	0023478965	12-JAN-72
17	Tiberiu	Andra	tibi.a@yahoo.com	0321559864	22-JAN-95
18	Stoenescu	Andreea	stoea@gmail.com	0123654781	21-SEP-77
19	Broscoțeanu	Elena	brelena@gmail.com	0123547896	31-DEC-73

INSERT INTO GARI

VALUES('BUC', 010856, 'Gara de Nord Bucuresti', 'Strada Garii de Nord', '0353621448');

INSERT INTO GARI


```
VALUES('BRV', 500009, 'Gara din Brasov', 'Strada Mihai  
Eminescu 1-3', '0253698112');
```

```
INSERT INTO GARI
```

```
VALUES('IAS', 700028, 'Gara de la Iasi', 'Strada Andrei Neagu 67-  
69', '0252641203');
```

```
INSERT INTO GARI
```

```
VALUES('CND', 900001, 'Lucian Blaga train station', 'Strada  
Ovazului Dulce 15', '0247156893');
```

```
INSERT INTO GARI
```

```
VALUES('TIM', 300013, 'Aurel Vlaicu gara de sud', 'Strada  
Apusului 78', '0241587320');
```

```
INSERT INTO GARI
```

```
VALUES('ARD', 310010, 'Arad Gara Vest', 'Calea Popicelor  
Vesele', '0234567891');
```

```
INSERT INTO GARI
```

```
VALUES('TGJ', 210235, 'Gara din GORJ', 'Strada Republicii 27',  
'0764474671');
```

```
INSERT INTO GARI
```

```
VALUES('HND', 331005, 'Hunedoara train ', 'Soseaua Floare  
Albastra 16-22', '0798654175');
```

```
select * from GARI;
```

```
ALTER TABLE ORAS
```

```
ADD CONSTRAINT orase_regiuni_fk FOREIGN KEY(id_regiune)  
REFERENCES REGIUNI(id_regiune);
```

```
ALTER TABLE ORAS
```

```
ADD CONSTRAINT orase_gari_fk FOREIGN KEY(id_gara)  
REFERENCES GARI(id_gara);
```

```
select * from oras;
```

--- din proiectl trecut trebuia create secvente pentru inserarea inregistrarilor in tabele

```
CREATE SEQUENCE SEQ_SOFEI
```

```
INCREMENT by 10
```

```
START WITH 120
```

```
MAXVALUE 9990
```

```
NOCYCLE;
```

```
CREATE SEQUENCE SEQ_SEFI_DE_TREN
```

```
INCREMENT by 10
```

```
START WITH 10
```

```
MAXVALUE 9990
```

```
NOCYCLE;
```

```
CREATE SEQUENCE SEQ_CALATORI
```

```
INCREMENT by 1
```

```
START WITH 1
```

```
MAXVALUE 999999
```

```
NOCYCLE;
```

```
CREATE SEQUENCE SEQ_CALATORII
```

```
INCREMENT by 1
```

```
START WITH 1001
```

```
MAXVALUE 999999
```

```
NOCYCLE;
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'BUC', 'Andreescu', 'Andrei',  
'0765448912', to_date('01-06-2017','DD-MM-YYYY'), 102300);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'BUC', 'Diaconu', 'Alex',  
'0746158799', to_date('20-08-2018','DD-MM-YYYY'), 140340);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'TIM', 'Popovici', 'Maria',  
'0713665284', to_date('27-02-2017','DD-MM-YYYY'), 600000);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'TIM', 'Haiduc', 'Luiza',  
'0771205664', to_date('16-09-2020','DD-MM-YYYY'), 308600);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'BRV', 'Adrianescu', 'David',  
'0786221540', to_date('30-11-2011','DD-MM-YYYY'), 401030);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'BRV', 'Minici', 'Marian',  
'0756332014', to_date('13-10-2015','DD-MM-YYYY'), 387510);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'BRV', 'Popescu', 'Razvan',  
'0253661479', to_date('30-05-2021','DD-MM-YYYY'), 275500);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'IAS', 'Cristescu', 'Iosif',  
'0714630175', to_date('21-02-2019','DD-MM-YYYY'), 250789);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'IAS', 'Mirea', 'Antonia',  
'0711247965', to_date('01-01-2015','DD-MM-YYYY'), 650990);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'CND', 'Paun', 'Robert',  
'0741226985', to_date('03-11-2019','DD-MM-YYYY'), 372999);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'CND', 'Aulescu', 'Matei',  
'0753210559', to_date('01-04-2022','DD-MM-YYYY'), 35000);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'CND', 'Aristid', 'Mihaela',  
'077232146', to_date('12-08-2021','DD-MM-YYYY'), 99999);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'TGJ', 'Ghita', 'Cosmin',  
'0792578600', to_date('21-07-2016','DD-MM-YYYY'), 500000);
```

```
INSERT INTO SOFERI
```

```
VALUES (SEQ_SOFERI.NEXTVAL, 'TGJ', 'Bonescu', 'Vlad',  
'0353621004', to_date('13-05-2011','DD-MM-YYYY'), 450770);
```

```
select * from SOFERI;
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BUC', 'Ionescu',  
'Gabriela', '0745669823', to_date('20-12-2009','DD-MM-YYYY'),  
80000);
```

INSERT INTO SEFI_DE_TREN

VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BUC', 'Marinescu',
'Stefania', '0703126445', to_date('30-08-2013','DD-MM-YYYY'),
80000);

INSERT INTO SEFI_DE_TREN

VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BUC', 'Usurelu', 'Horia',
'0723665801', to_date('29-02-2018','DD-MM-YYYY'), 60000);

INSERT INTO SEFI_DE_TREN

VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BRV', 'Raducanu',
'Mihnea', '0765231002', to_date('23-05-2019','DD-MM-YYYY'),
80500);

INSERT INTO SEFI_DE_TREN

VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'BRV', 'Avramescu',
'Antonela', '0713247889', to_date('24-02-2022','DD-MM-YYYY'),
15000);

INSERT INTO SEFI_DE_TREN


```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'TIM', 'Danaricu', 'Radu',  
'0465322102', to_date('13-05-2019','DD-MM-YYYY'), 17000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'TIM', 'Enescu',  
'Florentiu', '0253620112', to_date('30-12-2014','DD-MM-YYYY'),  
90000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'IAS', 'Nedelcu',  
'Aleandru', '0788654123', to_date('28-06-2020','DD-MM-YYYY'),  
12000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'IAS', 'Stoian', 'Traianis',  
'0735662147', to_date('07-07-2017','DD-MM-YYYY'), 3500);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'CND', 'Lemnaru',  
'Anaissa', '0741223569', to_date('11-12-2020','DD-MM-YYYY'),  
33999);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'CND', 'Cotiga',  
'Camelia', '0700005925', to_date('10-10-2011','DD-MM-YYYY'),  
85000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'TGJ', 'Mechie',  
'LEONARD', '0768320556', to_date('16-10-2009','DD-MM-  
YYYY'), 42000);
```

```
INSERT INTO SEFI_DE_TREN
```

```
VALUES (SEQ_SEFI_DE_TREN.NEXTVAL, 'HND', 'Vilceanu',  
'Dragos', '0748326995', to_date('12-12-2012','DD-MM-YYYY'),  
76000);
```

```
select * from SEFI_DE_TREN;
```

```
INSERT INTO COMPANII  
VALUES (120, 'Softrans');
```

```
INSERT INTO COMPANII  
VALUES (121, 'Regio Calatori');
```

```
INSERT INTO COMPANII  
VALUES (122, 'Astra Trans Carpatic');
```

```
INSERT INTO COMPANII  
VALUES (123, 'CFR');
```

```
INSERT INTO COMPANII  
VALUES (124, 'Interrail');
```

```
INSERT INTO COMPANII  
VALUES (125, 'InterRegional');
```

```
select * from COMPANII;
```

```
INSERT INTO TRENURI
```

```
VALUES (1000, 'ROCO_HO 2000', 120, 139, 200);
```

```
INSERT INTO TRENURI
```

```
VALUES (1001, 'MARKLIN-HO 123', 120, 150, 150);
```

```
INSERT INTO TRENURI
```

```
VALUES (1002, 'MARKLIN-HO 125', 120, 200, 130);
```

```
INSERT INTO TRENURI
```

```
VALUES (1003, 'ACME-HO 67', 120, 100, 175);
```

INSERT INTO TRENURI

VALUES (1004, 'MARKLIN-HO 127', 121, 150, 155);

INSERT INTO TRENURI

VALUES (1005, 'ACME-HO 68', 121, 137, 200);

INSERT INTO TRENURI

VALUES (1006, 'LIMA-HO 45', 121, 190, 190);

INSERT INTO TRENURI

VALUES (1007, 'LIMA-HO 46', 122, 191, 195);

INSERT INTO TRENURI

VALUES (1008, 'ROCO-HO 1200', 122, 241, 170);

INSERT INTO TRENURI

VALUES (1009, 'PIKO-HO 556', 123, 191, 200);

```
INSERT INTO TRENURI
```

```
VALUES (1010, 'PIKO-HO 600', 124, 180, 220);
```

```
SELECT * FROM TRENURI;
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'BRV', 130, 140,  
1006, to_date('11-12-2021 07:00','DD-MM-YYYY HH24:MI'),  
to_date('11-12-2021 07:55','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'IAS', 130, 140, 1002,  
to_date('24-12-2021 09:00','DD-MM-YYYY HH24:MI'),  
to_date('24-12-2021 10:05','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'TIM', 130, 140, 1000,  
to_date('25-12-2021 12:00','DD-MM-YYYY HH24:MI'),  
to_date('25-12-2021 13:00','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'TIM', 130, 140, 1010,  
to_date('01-01-2022 21:30','DD-MM-YYYY HH24:MI'),  
to_date('01-01-2022 22:30','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BRV', 'IAS', 130, 140, 1003,  
to_date('02-01-2022 16:00','DD-MM-YYYY HH24:MI'),  
to_date('02-01-2022 16:55','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BRV', 'CND', 150, 160,  
1008, to_date('02-01-2022 23:55','DD-MM-YYYY HH24:MI'),  
to_date('03-01-2022 00:30','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'IAS', 'TGJ', 130, 140, 1009,  
to_date('04-01-2022 13:00','DD-MM-YYYY HH24:MI'),  
to_date('04-01-2022 14:10','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'IAS', 'BUC', 120, 130, 1002,  
to_date('05-01-2022 05:30','DD-MM-YYYY HH24:MI'),  
to_date('05-01-2022 06:40','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'TGJ', 'IAS', 150, 160, 1004,  
to_date('20-03-2022 19:30','DD-MM-YYYY HH24:MI'),  
to_date('20-03-2022 20:40','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'TGJ', 'BRV', 150, 160, 1001,  
to_date('22-03-2022 09:45','DD-MM-YYYY HH24:MI'),  
to_date('22-03-2022 10:45','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```



```
VALUES (SEQ_CALATORII.NEXTVAL, 'TIM', 'BUC', 150, 160, 1005,  
to_date('30-03-2022 07:40','DD-MM-YYYY HH24:MI'),  
to_date('30-03-2022 08:55','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'TIM', 'CND', 150, 160,  
1007, to_date('05-04-2022 12:00','DD-MM-YYYY HH24:MI'),  
to_date('05-04-2022 13:45','DD-MM-YYYY HH24:MI'));
```

```
INSERT INTO CALATORII
```

```
VALUES (SEQ_CALATORII.NEXTVAL, 'BUC', 'ARD', 130, 140,  
1003, to_date('11-06-2022 05:55','DD-MM-YYYY HH24:MI'),  
to_date('11-06-2022 07:20','DD-MM-YYYY HH24:MI'));
```

```
SELECT * FROM CALATORII;
```

```
INSERT INTO CLASE
```

```
VALUES (01, 'Economica', NULL , 'masuta retractabila');
```

```
INSERT INTO CLASE
```

```
VALUES (20, 'Business', 100, 'scaune ajustabile si masuta  
rabatabila');
```

```
INSERT INTO CLASE
```

```
VALUES (30, 'Cuseta', 200, 'paturi');
```

```
INSERT INTO CLASE
```

```
VALUES (40, 'Business+', 300, 'business + pachetel');
```

```
INSERT INTO CLASE
```

```
VALUES (50, 'Clasa intai', 1000, 'clasa intai + pachetel');
```

```
select * from CLASE;
```

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Peptan', 'Vlad',
'vladp@yahoo.com', '0758723669', to_date('13-05-2002','dd-
mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Paraschiv', 'Ioana',
'pioana@gmail.com', '0789654112', to_date('20-06-1975','dd-
mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Caraiman', 'Andrei',
'andreic@yahoo.com.com', '0741023558', to_date('05-02-
1992','dd-mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Foanene', 'Bogdan',
'bogdif@yahoo.com', '0741203569', to_date('10-11-2001','dd-
mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Antonescu', 'Luca',
'luca@yaho.com', '0712365478', to_date('21-08-2000','dd-mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Brenciu', 'Tudor',
'tbre@yaho.com', '0756223001', to_date('14-03-1984','dd-mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Girbaci', 'Iani',
'ianig@yaho.com', '0789445123', to_date('14-07-1995','dd-mm-yyyy'));

INSERT INTO CALATORI

VALUES (SEQ_CALATORI.NEXTVAL, 'Buju', 'David',
'bujud@gmail.com', '0712345614', to_date('22-01-2003','dd-mm-yyyy'));

INSERT INTO CALATORI

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Popica', 'Luana',  
'popilu@gmail.com', '0745661230', to_date('27-08-2011','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Bilgar', 'Bianca',  
'bibib@yahoo.com', '0741220365', to_date('10-12-1994','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Popeanga', 'Mariuta',  
'popim@yahoo.com', '0746552398', to_date('12-08-1980','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Gheorghidui', 'Stefan',  
'stefi.g@yahoo.com', '0788895412', to_date('03-03-1971','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Boboc', 'Geanina',  
'geani@yahoo.com', '0721330256', to_date('18-11-2000','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Constantinescu', 'Mircea',  
'ctm.c@yahoo.com', '0456852013', to_date('28-06-1974','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Mursoi', 'Maria',  
'marim@gmail.com', '0145698745', to_date('10-11-2001','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Andreescu', 'Miruna',  
'a.miru@yahoo.com', '0023478965', to_date('12-01-1972','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Tiberiu', 'Andra',  
'tibi.a@yahoo.com', '0321559864', to_date('22-01-1995','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Stoenescu', 'Andreea',  
'stoea@gmail.com', '0123654781', to_date('21-09-1977','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Broscoteanu', 'Elena',  
'brelena@gmail.com', '0123547896', to_date('31-12-1973','dd-  
mm-yyyy'));
```

```
INSERT INTO CALATORI
```

```
VALUES (SEQ_CALATORI.NEXTVAL, 'Rusu', 'Cristian',  
'cristianrusuD@gmail.com', '0740332698', to_date('14-01-  
1963','dd-mm-yyyy'));
```

```
select * from CALATORI;
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (30, 1000, 100);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (20, 1000, 49);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (40, 1001, 141);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (20, 1004, 61);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (20, 1006, 40);
```



```
INSERT INTO TRENURI_AU_CLASE  
VALUES (30, 1006, 49);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (20, 1007, 26);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (20, 1008, 100);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (30, 1008, 20);
```

```
INSERT INTO TRENURI_AU_CLASE  
VALUES (40, 1008, 10);
```

ID_CLASA	ID_TREN	CAPACITATE
30	1000	100
40	1001	141
20	1000	49
20	1004	61
20	1006	40
30	1006	49
20	1007	26
20	1008	100
30	1008	20
40	1008	10

INSERT INTO REZERVA

VALUES (30, 1001, 1, 100001, 300);

INSERT INTO REZERVA

VALUES (20, 1007, 8, 100004, 200);

INSERT INTO REZERVA

VALUES (40, 1002, 5, 100008, 250);

```
INSERT INTO REZERVA  
VALUES (40, 1006, 6, 100009, 250);
```

```
INSERT INTO REZERVA  
VALUES (20, 1011, 8, 100005, 200);
```

```
INSERT INTO REZERVA  
VALUES (30, 1003, 2, 100012, 300);
```

```
INSERT INTO REZERVA  
VALUES (30, 1004, 3, 100013, 300);
```

```
INSERT INTO REZERVA  
VALUES (40, 1011, 10, 100014, 250);
```

```
INSERT INTO REZERVA  
VALUES (20, 1009, 7, 100015, 200);
```

INSERT INTO REZERVA

VALUES (20, 1005, 9, 100016, 200);

ID_CLASA	ID_CALATORIE	ID_CALATOR	ID_REZERVARE	PRET_BILET
30	1001	1	100001	300
40	1006	6	100009	250
40	1002	5	100008	250
20	1011	8	100005	200
30	1004	3	100013	300
40	1011	10	100014	250
20	1009	7	100015	200
20	1005	9	100016	200
20	1007	8	100004	200
30	1003	2	100012	300

INSERT INTO INSOTESC

VALUES (10, 1001);

INSERT INTO INSOTESC

VALUES (20, 1001);

```
INSERT INTO INSOTESC  
VALUES (10, 1003);
```

```
INSERT INTO INSOTESC  
VALUES (10, 1004);
```

```
INSERT INTO INSOTESC  
VALUES (50, 1006);
```

```
INSERT INTO INSOTESC  
VALUES (80, 1007);
```

```
INSERT INTO INSOTESC  
VALUES (90, 1007);
```

```
INSERT INTO INSOTESC  
VALUES (100, 1011);
```

```
INSERT INTO INSOTESC  
VALUES (60, 1011);
```

```
INSERT INTO INSOTESC  
VALUES (70, 1011);
```

ID_SEF_TREN	ID_CALATORIE
10	1001
10	1003
10	1004
20	1001
50	1006
60	1011
70	1011
80	1007
90	1007

6) Formulați în limbaj natural o problemă pe care să o rezolvați folosind un subprogram stocat independent care să utilizeze două tipuri diferite de colecții studiate. Apelați subprogramul.

Pentru fiecare gara sa se afiseze numele acesteia si salariul mediu al soferilor ce lucreaza acolo.

/

```
CREATE OR REPLACE PROCEDURE ex6 IS
```

```
-- Vom crea un tip de date inregistrare pentru a pastra
```

```
-- codul garii, numele acesteia si salariul mediu
```

```
TYPE gari_record IS RECORD
```

```
(cod gari.id_gara%TYPE,
```

```
nume gari.nume%TYPE,
```

```
salariu_mediu soferi.salariu%TYPE);
```

```
-- Datele pentru toate garile vor fi salvate intr-un tablou  
imbricat ce contine o coloana de tip inregistrare creat mai sus
```

```
TYPE tablou_imbricat IS TABLE OF gari_record;
```

-- Vom folosi un vector pentru salvarea si calcularea fiecarui salariu mediu al soferilor in functie de gara

```
TYPE vector IS VARRAY(8) OF soferi.salariu%TYPE;
```

-- Cu ajutorul unui ciclu cursor vom parcurge toate codurile de gari

```
CURSOR c IS
```

```
    SELECT id_gara
```

```
    FROM gari;
```

```
t tablou_imbricat := tablou_imbricat();
```

```
r gari_record;
```

```
v vector := vector();
```

```
BEGIN
```

```
    FOR i IN c LOOP
```


-- Initial vom salva codul si numele garilor in variabila de tip inregistrare declarata mai sus

```
SELECT id_gara, nume  
INTO r.cod, r.nume  
FROM gari  
WHERE i.id_gara = id_gara;
```

-- Calculam salariul mediu in functie de gara si il salvam intr-un element din vector

```
v.EXTEND;
```

```
SELECT AVG(salariu)  
INTO v(v.LAST)  
FROM soferi  
WHERE id_gara = i.id_gara;
```

-- Copiem valoarea salariului mediu in

-- campul specific din variabila de tip inregistrare

r.salariu_mediu := v(v.LAST);

-- Adaugam variabila de tip inregistrare curenta in

-- tabloul imbricat pentru a pastra toate valorile

t.EXTEND;

t(t.LAST) := r;

-- Afisam rezultatele in consola de output

DBMS_OUTPUT.PUT_LINE ('La gara ' || t(t.LAST).nume ||

' salariul mediu al soferilor este de ' ||

t(t.last).salariu_mediu);

END LOOP;

END ex6;

/

execute ex6;

7) --Sa se defineasca o procedura care primeste ca parametru numele unui sef de tren si

--returneaza calatoriile pe care le a condus plus calatorii care au participat pentru fiecare calatorie

--(tipuri de cursor: cursor clasic, ciclu cursor)

```
CREATE OR REPLACE PROCEDURE sef_de_tren_insoteste
```

```
    (nume_sef sefi_de_tren.NUME%TYPE,  
     prenume_sef sefi_de_tren.PRENUME%TYPE)
```

```
IS
```

```
    salariu_sef sefi_de_tren.salariu%TYPE;
```

```
    sef_id sefi_de_tren.id_sef_tren%TYPE;
```

```
    calatorie_id calatorii.id_calatorie%TYPE;
```

```
    calatorie_idd calatorii.id_calatorie%TYPE;
```

```
    CURSOR c_calatorii IS --CURSOR CLASIC PENTRU ID-URILE  
    calatoriilor
```

```
SELECT DISTINCT id_calatorie
FROM insotesc
WHERE id_sef_tren = (SELECT id_sef_tren
                     FROM sefi_de_tren
                     WHERE upper(ume)=upper(ume_sef) AND
upper(prenume)=upper(prenume_sef)
                     );
```

```
CURSOR c_calatori(calatorie_id_calatori
calatorii.id_calatorie%TYPE) IS --CURSOR CICLU CU PARAMETRU
PENTRU ID-UL caloriei, CU calatorii ei
```

```
SELECT nume
FROM calatori
WHERE id_calator IN (SELECT id_calator
                     FROM rezerva
                     WHERE id_calatorie = calatorie_id_calatori
                     );
```

```
BEGIN
```

```
SELECT salariu
```

```
INTO salariu_sef  
FROM sefi_de_tren  
WHERE upper(ume)=upper(ume_sef) AND  
upper(prenume)=upper(prenume_sef);
```

```
DBMS_OUTPUT.PUT_LINE('Seful de tren ' || '(' ||  
salariu_sef || ')' || ' ' || ume_sef || ' ' || prenume_sef || ' a  
insotit: ');
```

```
OPEN c_calatorii;  
LOOP FETCH c_calatorii INTO calatorie_id; --se incarca id-  
urile calatoriilor pe rand  
EXIT WHEN c_calatorii%NOTFOUND;
```

```
SELECT id_calatorie  
INTO calatorie_idd  
FROM calatorii  
WHERE id_calatorie = calatorie_id;
```

```
        DBMS_OUTPUT.PUT_LINE('Calatoria: ' || calatorie_idd  
|| ' contine :');
```

```
        FOR calator IN c_calatori(calatorie_id) LOOP --ciclu  
cursor pentru afisarea calatorilor
```

```
            DBMS_OUTPUT.PUT_LINE('    ' || calator.ume);  
        END LOOP;
```

```
END LOOP;
```

```
--caz in care seful de tren nu a insotit nimic
```

```
IF c_calatorii%ROWCOUNT = 0 THEN
```

```
    DBMS_OUTPUT.PUT_LINE('Seful de tren nu a insotit  
nimic pana acum');
```

```
END IF;
```

```
CLOSE c_calatorii; --inchidere cursor
```

```
EXCEPTION
```

```
        WHEN TOO_MANY_ROWS THEN --cazul in care exista  
mai multi sefi de tren cu numele dat
```

```
        RAISE_APPLICATION_ERROR(-20001, 'Exista mai multi  
sefi de tren cu acest nume');
```

```
        WHEN NO_DATA_FOUND THEN --nu exista sef de tren cu  
numele dat
```

```
        RAISE_APPLICATION_ERROR(-20000, 'Nu exista niciun  
sef de tren cu acest nume');
```

```
    END sef_de_tren_insoteste;
```

```
/
```

```
select * from sefi_de_tren;
```

```
select * from insotesc;
```

```
execute sef_de_tren_insoteste('Ionescu', 'Gabriela');
```

```
-- Seful de tren (80000) Ionescu Gabriela a insotit:
```

```
-- Calatoria: 1004 contine:
```

```
--      Caraiman
```

```
-- Calatoria: 1001 contine:
```

```
--      Peptan
```

-- Calatoria: 1003 contine:

-- Paraschiv

execute sef_de_tren_insoteste('Mechie', 'LEONARD'); --Seful de tren nu a insotit nimic pana acum

8)Dupa citirea numelui unui calator sa se returneze pretul total al rezervarii facute de acesta (pretul biletului + pretul aditional pentru clasa, daca este cazul) In cazul in care un pasager are mai multe rezervari, se va returna suma tuturor preturilor totale

/

CREATE OR REPLACE FUNCTION ex8(ume_calator
calatori.ume%TYPE)

RETURN REZERVA.pret_bilet%TYPE IS

pret_total REZERVA.pret_bilet%TYPE;

nr NUMBER;

BEGIN

-- Numaram cati calatori exista cu numele dat ca parametru

```
SELECT COUNT(*) INTO nr  
  
FROM calatori WHERE INITCAP(ume_calator) =  
INITCAP(ume);
```

-- Tratatam cazul in care nu exista niciun pasager si cazul in care
exista mai multe pasageri cu acelasi nume

```
IF nr = 0  
  
THEN RAISE_APPLICATION_ERROR(-20000, 'Nu exista niciun  
calator cu acest nume');  
  
ELSIF nr > 1  
  
THEN RAISE_APPLICATION_ERROR(-20001, 'Exista mai multi  
calatori cu acest nume');  
  
END IF;
```

-- numaram cate rezervari exista pt calatorul dat

```
SELECT COUNT(*) INTO nr
```

```
FROM calatori RIGHT OUTER JOIN REZERVA USING  
(id_calator)
```

```
WHERE INITCAP(ume_calator) = INITCAP(ume);
```

```
IF nr = 0
```

```
THEN RAISE_APPLICATION_ERROR(-20002, 'Nu exista nicio  
rezervare pe acest ume');
```

```
END IF;
```

-- Functia de SUM va trata cazul in care exista o singura
rezervare si cazul in care exista mai multe

```
SELECT SUM(pret_bilet + NVL(pret, 0))
```

```
INTO pret_total
```

```
FROM REZERVA JOIN CLASE USING (id_clasa) JOIN calatori  
USING (id_calator)
```

```
WHERE INITCAP(ume_calator) = INITCAP(calatori.ume);
```

-- Sunt folosite 3 tabele pentru a accesa detalii despre pretul
aditional al

-- clasei, numele pasagerilor si pretul biletului trecut in rezervare

RETURN pret_total;

END ex8;

/

select * from rezerva;

select ex8('Buju') from dual;

select ex8('Popescu') from dual;

```
86  
87 END ex8;  
88 /  
89  
90  
91 select ex8('Popescu') from dual;  
  
ORA-20000: Nu exista niciun calator cu acest nume
```

```
86  
87 END ex8;  
88 /  
89  
90 select * from rezerva;  
91 select ex8('Buju') from dual;  
  
EX8('BUJU')  
600
```

9) Se da numele unui sofer ca parametru. Sa se afiseze numarul de calatorii la care acesta a participat, numele garii la care lucreaza si numele orasului si al regiunii in care se afla aeroportul.

```
CREATE OR REPLACE PROCEDURE ex9 (nume_sofer  
soferi.nume%TYPE) IS
```

```
    v_nr NUMBER(4);
```

```
    v_gara gari.nume%TYPE;
```

```
    v_oras oras.nume%TYPE;
```

```
    v_regiune regiuni.nume%TYPE;
```

```
BEGIN
```

```
-- Vom folosi un RIGHT JOIN intre calatorii si soferi pentru a  
include si soferii care nu au facut nicio calatorie dar apartin unei  
gari.
```

```
-- Conditia de JOIN intre acestea verifica daca soferul a fost fie  
soferul 1 fie soferul 2
```

```
-- In continuare se face JOIN simplu cu tabelele GARI, ORAS si  
REGIUNI pentru a putea accesa si selecta numele acestora
```

```
SELECT COUNT(id_calatorie), g.nume, o.nume, r.nume
```

```
INTO v_nr, v_gara, v_oras, v_regiune  
FROM CALATORII c RIGHT JOIN soferi s ON (s.id_sofer =  
c.id_sofer1 OR  
s.id_sofer = c.id_sofer2) JOIN gari g ON (s.id_gara = g.id_gara)  
JOIN ORAS o ON (o.id_gara = s.id_gara) JOIN REGIUNI r  
USING (id_regiune)  
WHERE INITCAP(ume_sofer) = INITCAP(s.ume)  
GROUP BY g.ume, o.ume, r.ume;
```

-- Afisam in consola datele selectate mai sus

```
DBMS_OUTPUT.PUT_LINE('Nume sofer: ' ||  
INITCAP(ume_sofer));  
  
DBMS_OUTPUT.PUT_LINE('Numar de calatorii: ' || v_nr);  
  
DBMS_OUTPUT.PUT_LINE('Numele garii: ' || v_gara);  
  
DBMS_OUTPUT.PUT_LINE('Orasul garii in care lucreaza: ' ||  
v_oras);  
  
DBMS_OUTPUT.PUT_LINE('Regiunea in care se afla gara: ' ||  
v_regiune);
```

EXCEPTION

 WHEN TOO_MANY_ROWS

 THEN RAISE_APPLICATION_ERROR(-20003, 'Exista mai multi
soferi cu acest nume');

 WHEN NO_DATA_FOUND

 THEN RAISE_APPLICATION_ERROR(-20004, 'Nu exista soferi
cu acest nume');

END ex9;

/

EXECUTE ex9('Diaconu');

```
33  
34 EXECUTE ex9('Diaconu');
```

```
Statement processed.  
Nume sofer: Diaconu  
Numar de calatorii: 8  
Numele garii: Gara de Nord Bucuresti  
Orasul garii in care lucreaza: Bucuresti  
Regiunea in care se afla gara: Muntenia
```

10) trigger care interzice stergerea datelor din tabelul
insotesc(LMD)

```
select * from insotesc;
```

/

```
CREATE OR REPLACE TRIGGER ex
```

```
BEFORE DELETE ON insotesc
```

```
BEGIN
```

```
RAISE_APPLICATION_ERROR(-20005, 'Nu e posibila stergerea  
datelor din tabelul insotesc');
```

```
END;
```

```
/
```

```
DELETE FROM insotesc
```

```
WHERE id_calatorie = 1011;
```

```
148 --ex10
149
150 -- trigger care interzice stergerea datelor din tabelul insotesc
151 select * from insotesc;
152
153 /
154 CREATE OR REPLACE TRIGGER ex10
155 | BEFORE DELETE ON insotesc
156 BEGIN
157 | RAISE_APPLICATION_ERROR(-20005, 'Nu e posibila stergerea datelor din tabelul insotesc');
158 END;
159 /
160
161 DELETE FROM insotesc
162 WHERE id_calatorie = 1011;
```

ORA-20005: Nu e posibila stergerea datelor din tabelul insotesc ORA-06512: at "SQL_QCBBOPDAPLMUVTFJICAVOUPN.EX", line 2
ORA-06512: at "SYS.DBMS_SQL", line 1721

11) trigger care interzice cresterea pretului unui bilet cu mai mult de 50(LMD)

```
select * from rezerva;
```

```
/
```

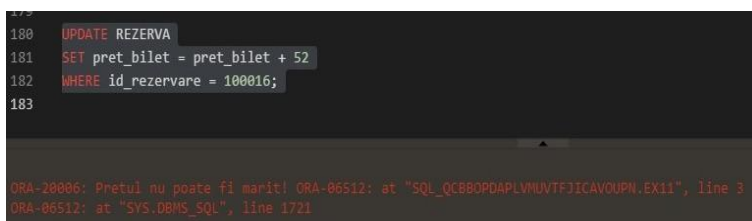
```
CREATE OR REPLACE TRIGGER ex11
```

```
BEFORE UPDATE ON REZERVA
```



```
FOR EACH ROW  
  
BEGIN  
  
    IF(:NEW.pret_bilet - :OLD.pret_bilet > 50)  
  
        THEN RAISE_APPLICATION_ERROR(-20006, 'Pretul nu poate fi  
marit!');  
  
    END IF;  
  
END;  
  
/
```

```
UPDATE REZERVA  
  
SET pret_bilet = pret_bilet + 52  
  
WHERE id_rezervare = 100016;
```



The screenshot shows a SQL*Plus terminal window with a dark background. The top part displays the SQL code from the previous block, with line numbers 180 through 183. The bottom part shows an error message in red text: "ORA-20006: Pretul nu poate fi marit! ORA-06512: at 'SQL_QCBBOPDAPLVNUNVTFJICAVOUPN.EX11', line 3 ORA-06512: at 'SYS.DBMS_SQL', line 1721".

```
180  UPDATE REZERVA  
181  SET pret_bilet = pret_bilet + 52  
182  WHERE id_rezervare = 100016;  
183  
  
ORA-20006: Pretul nu poate fi marit! ORA-06512: at "SQL_QCBBOPDAPLVNUNVTFJICAVOUPN.EX11", line 3  
ORA-06512: at "SYS.DBMS_SQL", line 1721
```

12)trigger care afiseaza un mesaj de fiecare data cand este
rulata o comanda LDD

/

```
CREATE OR REPLACE TRIGGER exc12
```

```
    AFTER CREATE OR ALTER OR DROP ON SCHEMA
```

```
BEGIN
```

```
    DBMS_OUTPUT.PUT_LINE('A FOST EFECTUATA O COMANDA  
LDD');
```

```
END;
```

```
/
```

```
ALTER TABLE soferi
```

```
ADD nr_copii NUMBER(2);
```

```
select * from soferi;
```

```
ALTER TABLE soferi
```

```
DROP COLUMN nr_copii;
```

```

190 /
191 CREATE OR REPLACE TRIGGER exc12
192 | AFTER CREATE OR ALTER OR DROP ON SCHEMA
193 BEGIN
194 | DBMS_OUTPUT.PUT_LINE('A FOST EFECTUATA O COMANDA LDD');
195 END;
196 /
197
198 ALTER TABLE soferi
199 ADD nr_copii NUMBER(2);
200
201 select * from soferi;
202
203 ALTER TABLE soferi
204 DROP COLUMN nr_copii;

```

ID_SOFER	ID_GARA	NUME	PRENUME	TELEFON	DATA_ANGAJARE	SALARIU	NR_COPII
120	BUC	Andreescu	Andrei	0765448912	01-JUN-17	102300	-