Academia de Studii Economice

Facultatea de Cibernetica, Statistica si Informatica Economica

**Proiect Baze de Date**

**Gestiunea datelor in domeniul aviatic**

**Profesor coordonator Student**

[CIRNARU Andreea-Alexandra](https://online.ase.ro/user/view.php?id=4568&course=1) Lovin Andrei

Grupa 1054, Seria D

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# **Creati o baza de date dintr-un domeniu ales de voi care sa contina cel putin 6 tabele, fiecare tabela continand cel putin 10 inregistrari**

CREATE TABLE TARI\_2 (

Id\_tara VARCHAR2(5) CONSTRAINT PK\_tari PRIMARY KEY,

Nume\_tara VARCHAR2(200) NOT NULL);

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('RO', 'Romania');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('DE', 'Germania');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('NL', 'Olanda');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('GB', 'Marea Britanie');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('FR', 'Franta');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('IE', 'Irlanda');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('PT', 'Portugalia');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('IT', 'Italia');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('AR', 'Argentina');

INSERT INTO TARI\_2 (Id\_tara, Nume\_tara) VALUES ('ES', 'Spania');

CREATE TABLE AEROPORTURI (

Id\_aeroport NUMBER(3) CONSTRAINT PK\_aeroporturi PRIMARY KEY,

Nume\_aeroport VARCHAR2(200) NOT NULL,

Oras VARCHAR2(200) NOT NULL,

Id\_tara VARCHAR2(5) NOT NULL,

Cod\_aeroport VARCHAR2(5) NOT NULL,

CONSTRAINT FK\_tari FOREIGN KEY (Id\_tara) REFERENCES TARI\_2 (Id\_tara));

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES (1, 'Aeroportul International Otopeni', 'Bucuresti', 'RO', 'BIO');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(2, 'Aeroportul Henri Coanda', 'Bucuresti', 'RO', 'BHC');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(3, 'Aeroportul International Cluj-Napoca', 'Cluj-Napoca', 'RO', 'CJI');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(4, 'Aeroportul International Timisoara', 'Timisoara', 'RO', 'TIT');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(5, 'Aeroportul International Sibiu', 'Sibiu', 'RO', 'SIS');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(6, 'Aeroportul International Oradea', 'Oradea', 'RO', 'OIO');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(7, 'Aeroportul International Mihail Kogalniceanu', 'Constanta', 'RO', 'CMK');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

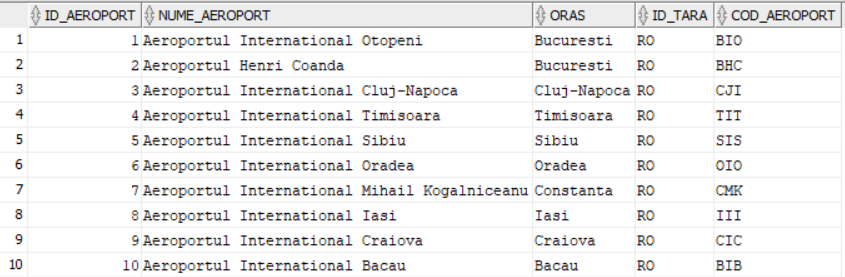
VALUES(8, 'Aeroportul International Iasi', 'Iasi', 'RO', 'III');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(9, 'Aeroportul International Craiova', 'Craiova', 'RO', 'CIC');

INSERT INTO AEROPORTURI (Id\_aeroport, Nume\_aeroport, Oras, Id\_tara, Cod\_aeroport)

VALUES(10, 'Aeroportul International Bacau', 'Bacau', 'RO', 'BIB');



CREATE TABLE COMPANII\_AERIENE (

Id\_companie NUMBER(3) CONSTRAINT PK\_companii PRIMARY KEY,

Nume\_companie VARCHAR2(200) NOT NULL,

Nume\_tara VARCHAR2(200) NOT NULL,

An\_fondare NUMBER(4) NOT NULL);

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (1, 'Tarom', 'Romania', '1954');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (2, 'Wizz Air', 'Romania', '2003');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (3, 'Blue Air', 'Romania', '2004');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (4, 'Lufthansa', 'Germania', '1926');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (5, 'KLM', 'Olanda', '1919');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (6, 'British Airways', 'Marea Britanie', '1974');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (7, 'Air France', 'Franta', '1933');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (8, 'Ryanair', 'Irlanda', '1985');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (9, 'TAP Portugal','Portugalia', '1945');

INSERT INTO COMPANII\_AERIENE (Id\_companie, Nume\_companie, Nume\_tara, An\_fondare) VALUES (10, 'Alitalia', 'Italia', '1947');



CREATE TABLE CURSE (

Id\_cursa NUMBER(3) CONSTRAINT PK\_curse PRIMARY KEY,

Aeroport\_plecare VARCHAR2(200) NOT NULL,

Aeroport\_sosire VARCHAR2(200) NOT NULL,

Durata\_cursa NUMBER(5) NOT NULL,

Id\_companie NUMBER(3) NOT NULL,

CONSTRAINT FK\_companii FOREIGN KEY (Id\_companie) REFERENCES COMPANII\_AERIENE (Id\_companie));

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (1, 'Aeroportul International Otopeni', 'Aeroportul International Cluj-Napoca', 80, 1);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (2, 'Aeroportul International Otopeni', 'Aeroportul International Timisoara', 70, 1);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (3, 'Aeroportul International Otopeni', 'Aeroportul International Sibiu', 80, 2);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (4, 'Aeroportul International Otopeni', 'Aeroportul International Oradea', 70, 3);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (5, 'Aeroportul International Otopeni', 'Aeroportul International Mihail Kogalniceanu', 90, 1);

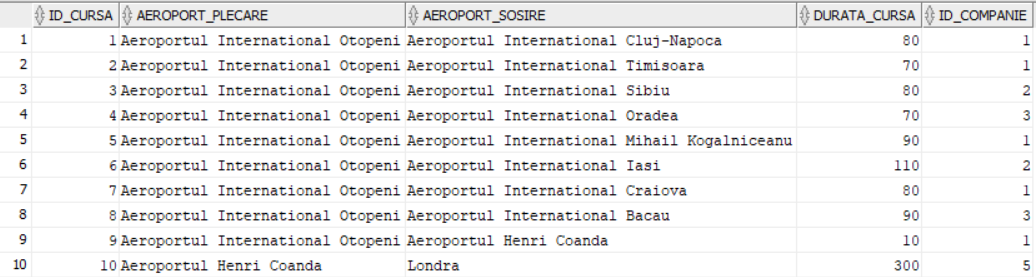
INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (6, 'Aeroportul International Otopeni', 'Aeroportul International Iasi', 110, 2);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (7, 'Aeroportul International Otopeni', 'Aeroportul International Craiova', 80, 1);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (8, 'Aeroportul International Otopeni', 'Aeroportul International Bacau', 90, 3);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (9, 'Aeroportul International Otopeni', 'Aeroportul Henri Coanda', 10, 1);

INSERT INTO CURSE (Id\_cursa, Aeroport\_plecare, Aeroport\_sosire, Durata\_cursa, Id\_companie) VALUES (10, 'Aeroportul Henri Coanda', 'Londra', 300, 5);



CREATE TABLE ZBORURI (

Id\_zbor NUMBER(3) CONSTRAINT PK\_zboruri PRIMARY KEY,

Nume\_zbor VARCHAR2(200) NOT NULL,

Data\_plecarii DATE NOT NULL,

Data\_sosirii DATE NOT NULL,

Id\_cursa NUMBER(3) NOT NULL,

CONSTRAINT FK\_curse FOREIGN KEY (Id\_cursa) REFERENCES CURSE (Id\_cursa)

);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (1, 'Tarom Zbor 841', TO\_DATE('01-06-2020','dd-mm-yyyy'), TO\_DATE('02-06-2020','dd-mm-yyyy'), 1);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (2, 'Tarom Zbor 842', TO\_DATE('02-06-2020','dd-mm-yyyy'), TO\_DATE('03-06-2020','dd-mm-yyyy'), 1);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (3, 'Wizz Air Zbor 801', TO\_DATE('03-06-2020','dd-mm-yyyy'), TO\_DATE('04-06-2020','dd-mm-yyyy'), 2);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (4, 'Wizz Air Zbor 802', TO\_DATE('04-06-2020','dd-mm-yyyy'), TO\_DATE('05-06-2020','dd-mm-yyyy'), 2);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (5, 'Blue Air Zbor 861', TO\_DATE('05-06-2020','dd-mm-yyyy'), TO\_DATE('06-06-2020','dd-mm-yyyy'), 3);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (6, 'Blue Air Zbor 862', TO\_DATE('06-06-2020','dd-mm-yyyy'), TO\_DATE('07-06-2020','dd-mm-yyyy'), 3);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (7, 'Lufthansa Zbor 831', TO\_DATE('07-06-2020','dd-mm-yyyy'), TO\_DATE('08-06-2020','dd-mm-yyyy'), 4);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

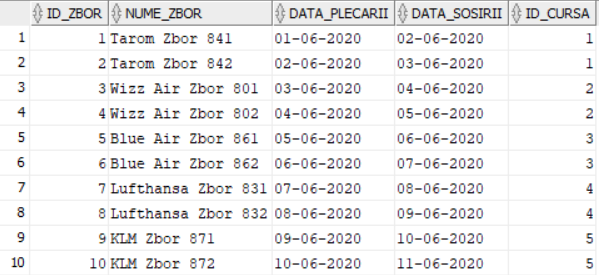
VALUES (8, 'Lufthansa Zbor 832', TO\_DATE('08-06-2020','dd-mm-yyyy'), TO\_DATE('09-06-2020','dd-mm-yyyy'), 4);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (9, 'KLM Zbor 871', TO\_DATE('09-06-2020','dd-mm-yyyy'), TO\_DATE('10-06-2020','dd-mm-yyyy'), 5);

INSERT INTO ZBORURI (Id\_zbor, Nume\_zbor, Data\_plecarii, Data\_sosirii, Id\_cursa)

VALUES (10, 'KLM Zbor 872', TO\_DATE('10-06-2020','dd-mm-yyyy'), TO\_DATE('11-06-2020','dd-mm-yyyy'), 5);



CREATE TABLE PASAGERI (

Id\_pasager NUMBER(3) CONSTRAINT PK\_pasageri PRIMARY KEY,

Nume\_pasager VARCHAR2(200) NOT NULL,

Prenume\_pasager VARCHAR2(200) NOT NULL,

Varsta\_pasager NUMBER(3) NOT NULL);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (1, 'Popescu', 'Ion', 32);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (2, 'Popescu', 'Maria', 28);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (3, 'Ionescu', 'Vasile', 37);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (4, 'Ionescu', 'Ana', 42);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (5, 'Andrei', 'Alexandru', 25);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (6, 'Andrei', 'Adriana', 27);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (7, 'Vasilescu', 'Mihai', 33);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

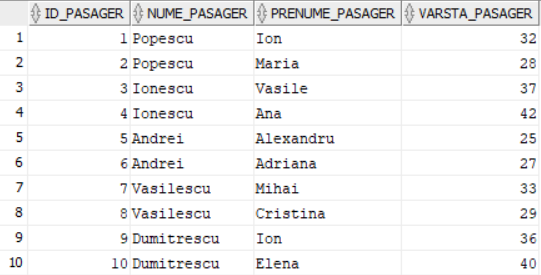
VALUES(8, 'Vasilescu', 'Cristina', 29);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (9, 'Dumitrescu', 'Ion', 36);

INSERT INTO PASAGERI (Id\_pasager, Nume\_pasager, Prenume\_pasager, Varsta\_pasager)

VALUES (10, 'Dumitrescu', 'Elena', 40);



CREATE TABLE BILETE (

Id\_bilet NUMBER(3) CONSTRAINT PK\_bilete PRIMARY KEY,

Id\_zbor NUMBER(3) NOT NULL,

Id\_pasager NUMBER(3) NOT NULL,

Tip\_bilet VARCHAR2(200) NOT NULL,

Pret NUMBER(4) NOT NULL,

CONSTRAINT FK\_zboruri FOREIGN KEY (Id\_zbor) REFERENCES ZBORURI (Id\_zbor),

CONSTRAINT FK\_pasageri FOREIGN KEY (Id\_pasager) REFERENCES PASAGERI (Id\_pasager));

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (1, 1, 1, 'business', 200);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (2, 1, 2, 'business', 200);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (3, 2, 3, 'first', 250);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (4, 2, 4, 'first', 250);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (5, 3, 5, 'economic', 150);

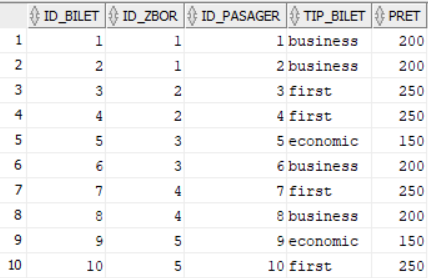
INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (6, 3, 6, 'business', 200);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (7, 4, 7, 'first', 250);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (8, 4, 8, 'business', 200);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (9, 5, 9, 'economic', 150);

INSERT INTO BILETE (Id\_bilet, Id\_zbor, Id\_pasager, Tip\_bilet, Pret) VALUES (10, 5, 10, 'first', 250);



CREATE TABLE ECHIPAJ (

Id\_echipaj NUMBER(3),

Id\_zbor NUMBER(3) NOT NULL,

Id\_membru NUMBER(3) NOT NULL CONSTRAINT PK\_membru\_echipaj PRIMARY KEY,

Nume\_membru VARCHAR2(200) NOT NULL,

Functie VARCHAR2(200) NOT NULL,

Experienta NUMBER(2) NOT NULL,

Id\_superior NUMBER(2),

CONSTRAINT FK\_zbr FOREIGN KEY (Id\_zbor) REFERENCES ZBORURI (Id\_zbor));

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta)

VALUES (1, 1, 1, 'Gheorghe', 'pilot', 10);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (1, 1, 2, 'Ion', 'copilot', 5, 1);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (1, 1, 3, 'Mihai', 'steward', 3, 2);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (1, 1, 4, 'Ioana', 'steward', 3, 2);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta)

VALUES (2, 2, 5, 'Vasile', 'pilot', 10);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (2, 2, 6, 'Marius', 'copilot', 6, 5);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (2, 2, 7, 'Valentin', 'steward', 5, 6);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (2, 2, 8, 'Iulia', 'steward', 4, 6);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta)

VALUES (3, 3, 9, 'Alexandru', 'pilot', 9);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (3, 3, 10, 'Cristian', 'copilot', 8, 9);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (3, 3, 11, 'Gheorghita', 'steward', 7, 10);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (3, 3, 12, 'Roxana', 'steward', 7, 10);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta)

VALUES (4, 4, 13, 'Gheorghe', 'pilot', 8);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (4, 4, 14, 'Adrian', 'copilot', 3, 13);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (4, 4, 15, 'Iulia', 'steward', 4, 14);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (4, 4, 16, 'Anca', 'steward', 4, 14);

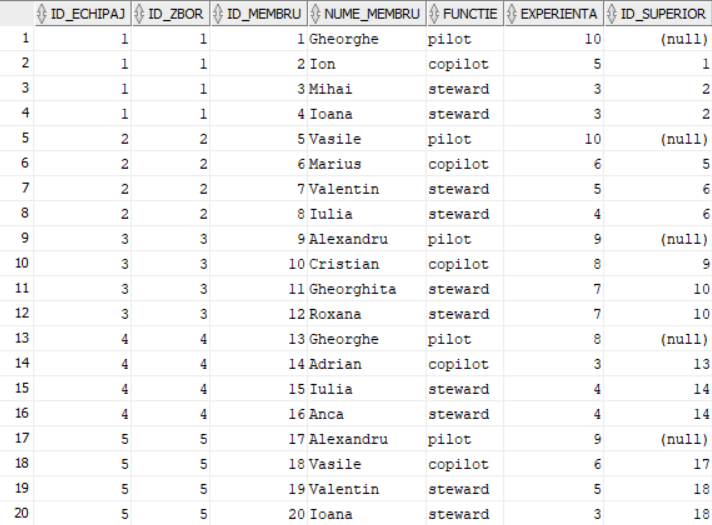
INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta)

VALUES (5, 5, 17, 'Alexandru', 'pilot', 9);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (5, 5, 18, 'Vasile', 'copilot', 6, 17);

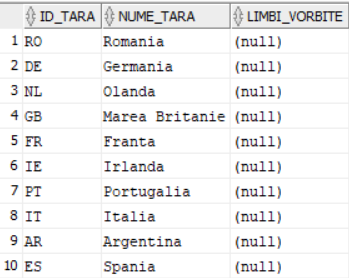
INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (5, 5, 19, 'Valentin', 'steward', 5, 18);

INSERT INTO ECHIPAJ (Id\_echipaj, Id\_zbor, Id\_membru, Nume\_membru, Functie, Experienta, Id\_superior) VALUES (5, 5, 20, 'Ioana', 'steward', 3, 18);

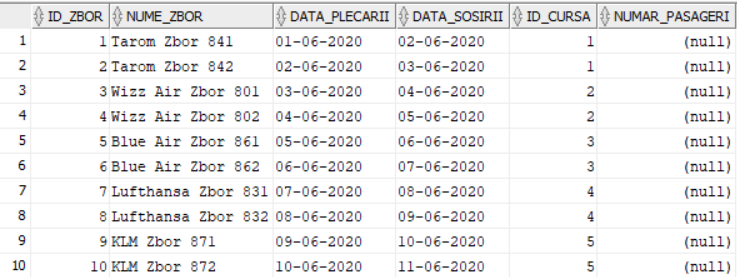


# **Realizati 12 interogari in care sa folositi comenzile alter, select, update, delete**

ALTER TABLE TARI\_2 ADD(Limbi\_vorbite VARCHAR(50));



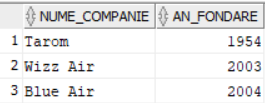
ALTER TABLE ZBORURI ADD(Numar\_pasageri NUMBER(3));



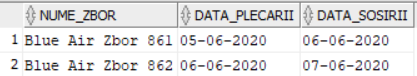
ALTER TABLE CURSE ADD(Tip\_avion VARCHAR(50));



SELECT Nume\_companie, An\_fondare FROM COMPANII\_AERIENE WHERE Nume\_tara = 'Romania';



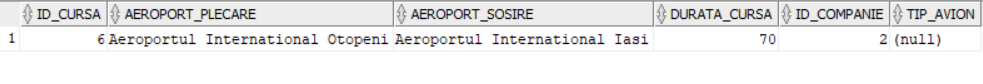
SELECT Nume\_zbor, Data\_plecarii, Data\_sosirii FROM ZBORURI WHERE Id\_cursa = 3;



SELECT Nume\_aeroport, Oras, Id\_tara FROM AEROPORTURI WHERE Cod\_aeroport = 'BIB';



UPDATE CURSE SET Durata\_cursa = 70 WHERE Id\_cursa = 6;



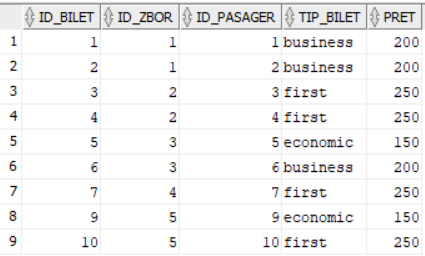
UPDATE PASAGERI SET Varsta\_pasager = 35 WHERE Id\_pasager = 10;



UPDATE COMPANII\_AERIENE SET An\_fondare = '1935' WHERE Id\_companie = 9;



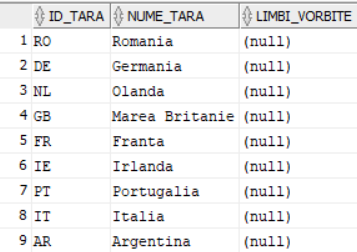
DELETE FROM BILETE WHERE Id\_bilet = 8;



DELETE FROM aeroporturi WHERE Id\_aeroport = 4;



DELETE FROM TARI\_2 WHERE Id\_tara = 'ES';

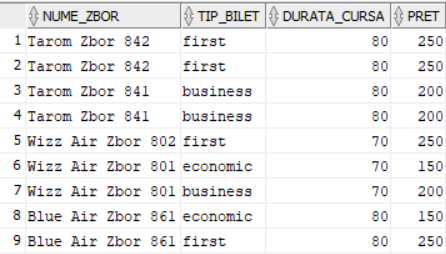


# **Realizati 8 interogari in care sa folositi cele 4 tipuri de jonctiuni: left join, right join, inner join, outer join**

SELECT Z.Nume\_zbor, B.Tip\_bilet, C.Durata\_cursa, B.Pret FROM BILETE B

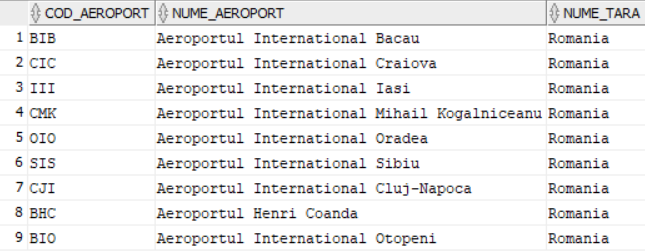
LEFT JOIN ZBORURI Z ON B.Id\_zbor = Z.Id\_zbor

LEFT JOIN CURSE C ON Z.Id\_cursa = C.Id\_cursa;



SELECT A.Cod\_aeroport, A.Nume\_aeroport, T.Nume\_tara FROM Aeroporturi A

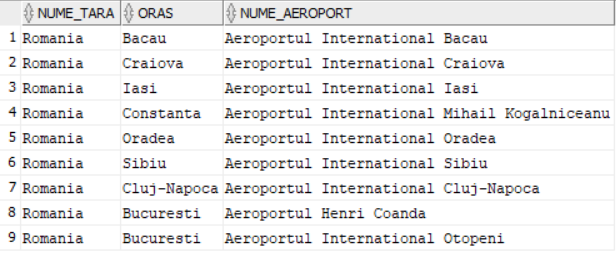
LEFT JOIN Tari\_2 T ON A.Id\_tara = T.Id\_tara;



SELECT TARI\_2.Nume\_tara, AEROPORTURI.Oras,

AEROPORTURI.Nume\_aeroport FROM TARI\_2

RIGHT JOIN AEROPORTURI ON TARI\_2.Id\_tara = AEROPORTURI.Id\_tara;



SELECT PASAGERI.Nume\_pasager, PASAGERI.Prenume\_pasager,

ZBORURI.Nume\_zbor, ZBORURI.Data\_plecarii FROM PASAGERI

RIGHT JOIN BILETE ON PASAGERI.Id\_pasager = BILETE.Id\_pasager

LEFT JOIN ZBORURI ON BILETE.Id\_zbor = ZBORURI.Id\_zbor;

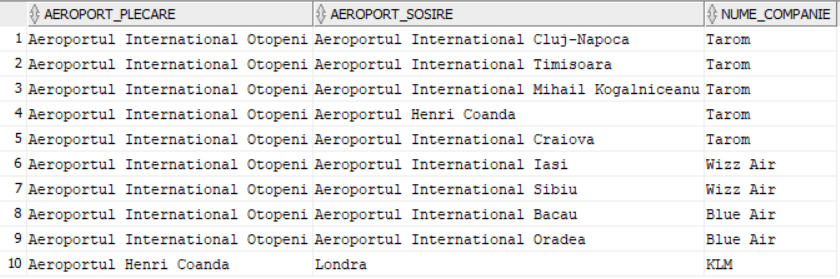


SELECT CURSE.Aeroport\_plecare, CURSE.Aeroport\_sosire,

COMPANII\_AERIENE.Nume\_companie FROM CURSE

INNER JOIN COMPANII\_AERIENE ON CURSE.Id\_companie =

COMPANII\_AERIENE.Id\_companie;



SELECT COMPANII\_AERIENE.Nume\_tara,

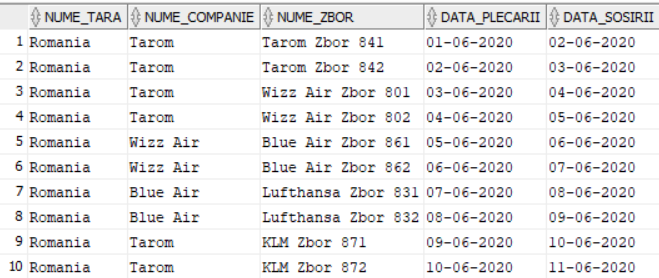
COMPANII\_AERIENE.Nume\_companie, ZBORURI.Nume\_zbor,

ZBORURI.Data\_plecarii, ZBORURI.Data\_sosirii FROM COMPANII\_AERIENE

INNER JOIN CURSE ON COMPANII\_AERIENE.Id\_companie =

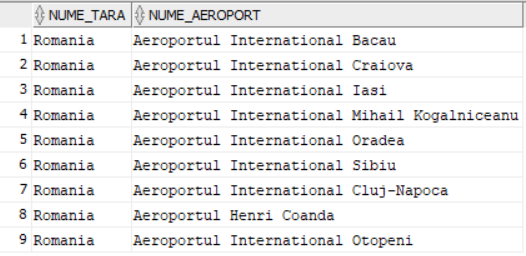
CURSE.Id\_companie

INNER JOIN ZBORURI ON CURSE.Id\_cursa = ZBORURI.Id\_cursa;



SELECT T.Nume\_tara, A.Nume\_aeroport FROM TARI\_2 T

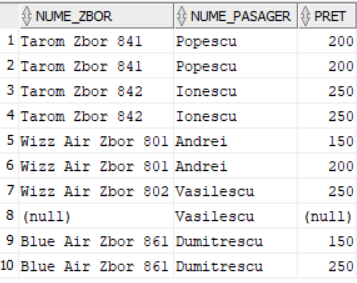
RIGHT OUTER JOIN AEROPORTURI A ON T.Id\_tara = A.Id\_tara;



SELECT Z.Nume\_zbor, P.Nume\_pasager, B.Pret FROM ZBORURI Z

LEFT OUTER JOIN BILETE B ON Z.Id\_zbor = B.Id\_zbor

RIGHT OUTER JOIN PASAGERI P ON P.Id\_pasager = B.Id\_pasager;



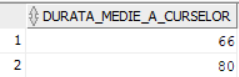
#### **Realizati 6 interogari in care sa folositi functiile de grup**

SELECT AVG(Durata\_cursa) AS Durata\_medie\_a\_curselor FROM CURSE

WHERE Id\_companie in (1, 3)

GROUP BY Id\_companie

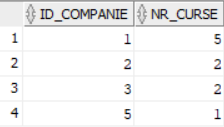
HAVING AVG(Durata\_cursa) < 90;



SELECT Id\_companie, COUNT(Id\_cursa) AS NR\_CURSE FROM CURSE

GROUP BY Id\_companie

ORDER BY Id\_companie;

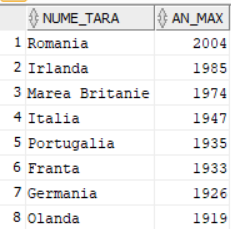


SELECT Nume\_tara, MAX(An\_fondare) AS An\_max

FROM COMPANII\_AERIENE

GROUP BY Nume\_tara

ORDER BY An\_max DESC;



SELECT MIN(Pret) AS Pret\_minim, Nume\_companie FROM Bilete

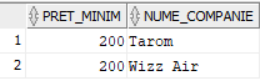
JOIN Curse ON Bilete.Id\_zbor = Curse.Id\_cursa

JOIN Companii\_aeriene ON Companii\_aeriene.Id\_companie = Curse.Id\_companie

WHERE Tip\_bilet = 'business'

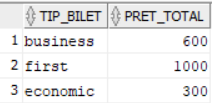
GROUP BY Nume\_companie

ORDER BY Pret\_minim;



SELECT Tip\_bilet, SUM(Pret) AS Pret\_total FROM Bilete

GROUP BY Tip\_bilet;

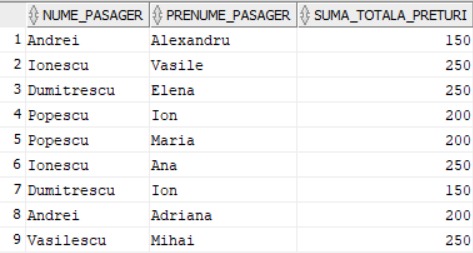


SELECT PASAGERI.Nume\_pasager, PASAGERI.Prenume\_pasager,

SUM(BILETE.Pret) AS Suma\_totala\_preturi FROM PASAGERI

INNER JOIN BILETE ON BILETE.Id\_pasager = PASAGERI.Id\_pasager

GROUP BY PASAGERI.Nume\_pasager, PASAGERI.Prenume\_pasager;



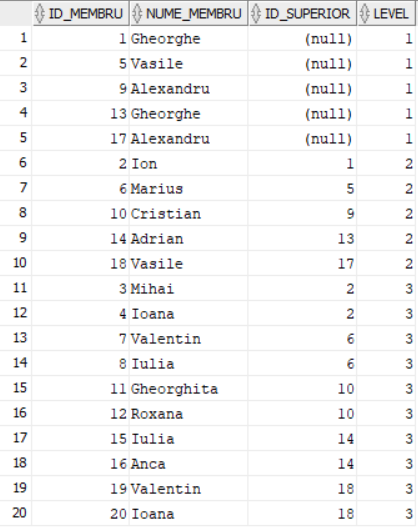
# **Realizati 6 interogari in care sa folositi structurile ierarhice**

SELECT Id\_membru, Nume\_membru, Id\_superior, LEVEL FROM ECHIPAJ

CONNECT BY PRIOR Id\_membru = Id\_superior

START WITH Id\_membru in (1,5,9,13,17)

ORDER BY LEVEL, Id\_membru;



SELECT LEVEL, LPAD(' ',LEVEL)||Nume\_membru AS NUME FROM ECHIPAJ

CONNECT BY PRIOR Id\_membru = Id\_superior

START WITH Id\_membru in (1,5,9,13,17)

ORDER BY LEVEL, Id\_membru;

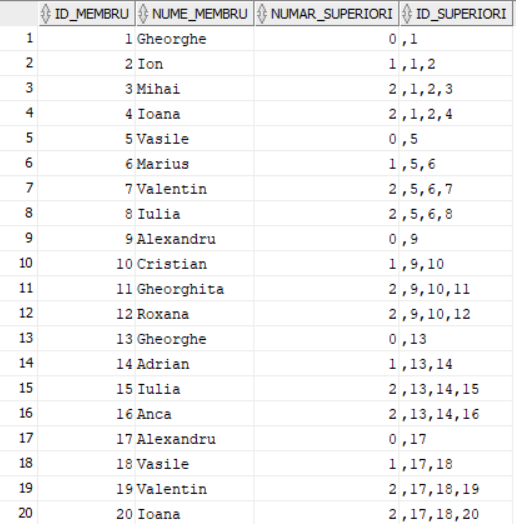


SELECT Id\_membru, Nume\_membru, level-1 NUMAR\_SUPERIORI,

SYS\_CONNECT\_BY\_PATH(Id\_membru, ',') ID\_SUPERIORI FROM ECHIPAJ

START WITH Id\_membru in (1,5,9,13,17)

CONNECT BY PRIOR Id\_membru = Id\_superior;



SELECT Id\_zbor, AVG(Experienta) AS MEDIE\_EXPERIENTA

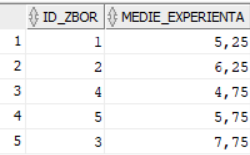
FROM ECHIPAJ

START WITH Id\_membru IN (1,5,9,13,17)

CONNECT BY PRIOR Id\_zbor = Id\_zbor

AND PRIOR Id\_membru = Id\_superior

GROUP BY Id\_zbor;

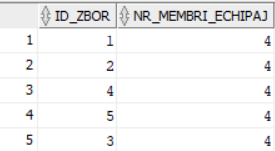


SELECT Id\_zbor, COUNT(\*) NR\_MEMBRI\_ECHIPAJ FROM ECHIPAJ

START WITH Id\_superior IS NULL

CONNECT BY PRIOR Id\_membru = Id\_superior

GROUP BY Id\_zbor;



SELECT Nume\_membru, Id\_superior, COUNT(DISTINCT Id\_zbor)

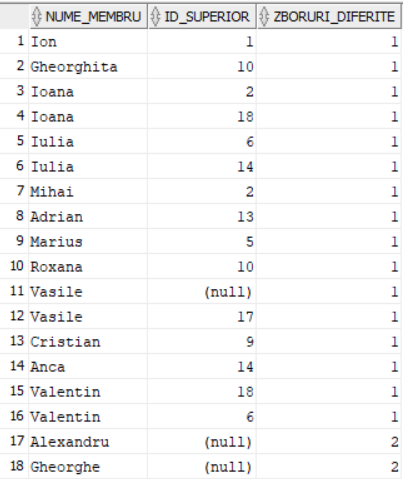
ZBORURI\_DIFERITE FROM ECHIPAJ

CONNECT BY PRIOR Id\_membru = Id\_superior

START WITH Id\_membru in (1,5,9,13,17)

GROUP BY Nume\_membru, Id\_superior

ORDER BY ZBORURI\_DIFERITE;



# **Realizati 4 interogari in care sa folositi comanda CASE/ DECODE**

SELECT Nume\_pasager, Varsta\_pasager, CASE

WHEN Tip\_bilet = 'economic' THEN 'Bilet economic'

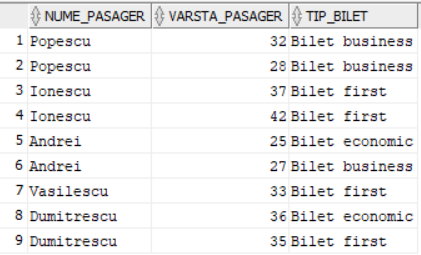
WHEN Tip\_bilet = 'business' THEN 'Bilet business'

WHEN Tip\_bilet = 'first' THEN 'Bilet first'

END AS Tip\_bilet

FROM PASAGERI

JOIN BILETE ON BILETE.Id\_pasager = PASAGERI.Id\_pasager;



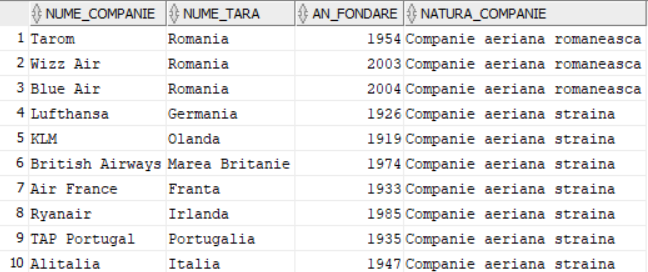
SELECT Nume\_companie, Nume\_tara, An\_fondare, CASE

WHEN Nume\_tara = 'Romania' THEN 'Companie aeriana romaneasca'

ELSE 'Companie aeriana straina'

END AS Natura\_companie

FROM COMPANII\_AERIENE;



SELECT DECODE(COMPANII\_AERIENE.Nume\_tara, 'Romania', 'RO',

'Germania', 'DE', 'Olanda', 'NL', 'Marea Britanie', 'GB', 'Franta', 'FR', 'Irlanda', 'IE',

'Portugalia', 'PT', 'Italia', 'IT', 'Argentina', 'AR', 'Spania', 'ES') AS "NUME TARA",

COMPANII\_AERIENE.Nume\_companie, COMPANII\_AERIENE.An\_fondare

FROM COMPANII\_AERIENE;



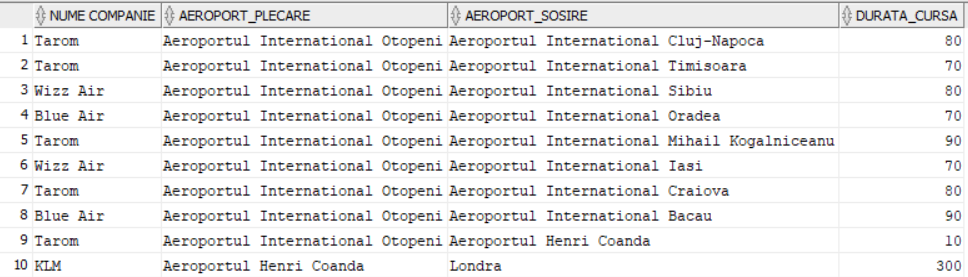
SELECT DECODE(CURSE.Id\_companie, 1, 'Tarom', 2, 'Wizz Air', 3, 'Blue Air',

4, 'Lufthansa', 5, 'KLM', 6, 'British Airways', 7, 'Air France', 8, 'Ryanair', 9, 'TAP

Portugal', 10, 'Alitalia') AS "NUME COMPANIE", CURSE.Aeroport\_plecare,

CURSE.Aeroport\_sosire, CURSE.Durata\_cursa

FROM CURSE;



# **Realizati 3 interogari in care sa folositi operatorii MINUS, INTERSECT, UNION, cate una cu fiecare**

SELECT Nume\_companie FROM COMPANII\_AERIENE

MINUS

SELECT Nume\_companie FROM COMPANII\_AERIENE

WHERE Nume\_tara = 'Romania';

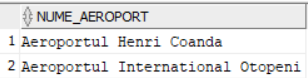


SELECT Nume\_aeroport FROM AEROPORTURI

WHERE Id\_tara = 'RO'

INTERSECT

SELECT Aeroport\_plecare FROM CURSE;



SELECT Nume\_pasager FROM PASAGERI

WHERE Varsta\_pasager < 30

UNION

SELECT Nume\_pasager FROM PASAGERI

WHERE Varsta\_pasager >= 40;

