

Tema 2 LABORATOR BD – Sandu Raluca-Ioana grupa 142

--ex : crearea tabelelor

CREATE TABLE SPONSOR

(cod_sponsor number(5) constraint pkey_sp primary key,

nume varchar2(20) constraint nume_sp NOT NULL,

unique(nume),

email char(15),

unique (email)

);

CREATE TABLE CAMPANIE

(cod_campanie int primary key,

titlu VARCHAR(20) NOT NULL,

data_start date default sysdate,

data_end date, check (data_end > data_start),

valoare VARCHAR2(30),

cod_sponsor int, foreign key (cod_sponsor) references SPONSOR(cod_sponsor)

);

--ex 1:

---insert implicit

INSERT INTO SPONSOR VALUES(10, 'CISCO', 'cisco@gmail.com');

INSERT INTO SPONSOR VALUES(20, 'KFC', NULL);

INSERT INTO SPONSOR VALUES(30, 'ADOBE', 'adobe@adobe.com');

INSERT INTO SPONSOR VALUES(40, 'BRD', NULL);

INSERT INTO SPONSOR VALUES(50, 'VODAFONE', 'vdf@gmail.com');

INSERT INTO SPONSOR VALUES(60, 'BCR', NULL);

INSERT INTO SPONSOR VALUES(70, 'SAMSUNG', NULL);

INSERT INTO SPONSOR VALUES(80, 'IBM', 'ibm@ibm.com');

```
INSERT INTO SPONSOR VALUES(90, 'OMV', NULL);
```

```
INSERT INTO SPONSOR VALUES(100, 'ENEL', NULL);
```

```
COMMIT
```

```
--SELECT * FROM SPONSOR;
```

```
---insert implicit
```

```
INSERT INTO CAMPANIE VALUES(1, 'CAMP1', sysdate, to_date('20-06-2021', 'dd-mm-yyyy'), '1200', 10);
```

```
INSERT INTO CAMPANIE VALUES(2, 'CAMP2', sysdate, to_date('25-07-2021', 'dd-mm-yyyy'), '3400', 20);
```

```
INSERT INTO CAMPANIE VALUES(3, 'CAMP3', sysdate, to_date('10-06-2021', 'dd-mm-yyyy'), NULL, 30);
```

```
INSERT INTO CAMPANIE VALUES(4, 'CAMP4', sysdate, to_date('20-06-2021', 'dd-mm-yyyy'), NULL, 40);
```

```
INSERT INTO CAMPANIE VALUES(5, 'CAMP5', sysdate, to_date('05-06-2021', 'dd-mm-yyyy'), '2200', 50);
```

```
INSERT INTO CAMPANIE VALUES(6, 'CAMP6', sysdate, to_date('15-08-2021', 'dd-mm-yyyy'), NULL, 60);
```

```
INSERT INTO CAMPANIE VALUES(7, 'CAMP7', sysdate, to_date('02-09-2021', 'dd-mm-yyyy'), '5500', 70);
```

```
INSERT INTO CAMPANIE VALUES(8, 'CAMP8', sysdate, to_date('10-10-2021', 'dd-mm-yyyy'), NULL, 20);
```

```
INSERT INTO CAMPANIE VALUES(9, 'CAMP9', sysdate, to_date('10-06-2021', 'dd-mm-yyyy'), '4000', 30);
```

```
INSERT INTO CAMPANIE VALUES(10, 'CAMP10', sysdate, to_date('25-09-2021', 'dd-mm-yyyy'), '3500', NULL);
```

```
COMMIT
```

```
--SELECT * FROM CAMPANIE;
```

The screenshot displays the Oracle SQL Developer interface. The main window shows a SQL script with the following content:

```
valoare VARCHAR2(30),
cod_sponsor int, foreign key (cod_sponsor) references SPONSOR(cod_sponsor)
);

---insert implicit

INSERT INTO SPONSOR VALUES (10, 'CISCO', 'cisco@gmail.com');
INSERT INTO SPONSOR VALUES (20, 'KFC', NULL);
INSERT INTO SPONSOR VALUES (30, 'ADOBE', 'adobe@adobe.com');
INSERT INTO SPONSOR VALUES (40, 'BRD', NULL);
INSERT INTO SPONSOR VALUES (50, 'VODAFONE', 'vdf@gmail.com');
INSERT INTO SPONSOR VALUES (60, 'BCR', NULL);
INSERT INTO SPONSOR VALUES (70, 'SAMSUNG', NULL);
INSERT INTO SPONSOR VALUES (80, 'IBM', 'ibm@ibm.com');
INSERT INTO SPONSOR VALUES (90, 'OMV', NULL);
INSERT INTO SPONSOR VALUES (100, 'ENEL', NULL);

COMMIT

SELECT * FROM SPONSOR;
```

The bottom panel shows the query results for the last executed statement, displaying 10 rows of data from the SPONSOR table:

COD_SPONSOR	NAME	EMAIL
10	CISCO	cisco@gmail.com
20	KFC	(null)
30	ADOBE	adobe@adobe.com
40	BRD	(null)
50	VODAFONE	vdf@gmail.com
60	BCR	(null)
70	SAMSUNG	(null)
80	IBM	ibm@ibm.com
90	OMV	(null)
100	ENEL	(null)

Oracle SQL Developer: Raluca

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Connections

Oracle Connections

Raluca

Tables (Filtered)

CAMPANIE

COUNTRIES

COUNTRY_ID

COUNTRY_NAME

REGION_ID

DEPARTMENTS

DEPARTMENT_ID

DEPARTMENT_NAME

MANAGER_ID

LOCATION_ID

EMPLOYEES

JOB_GRADES

JOB_HISTORY

JOBS

LOCATIONS

PROJECT

REGIONS

REGION_ID

REGION_NAME

SPONSOR

SPONSOR

Worksheet

Query Builder

```

INSERT INTO SPONSOR VALUES(60, 'BCK', NULL);
INSERT INTO SPONSOR VALUES(70, 'SAMSUNG', NULL);
INSERT INTO SPONSOR VALUES(80, 'IBM', 'ibm@ibm.com');
INSERT INTO SPONSOR VALUES(90, 'OMV', NULL);
INSERT INTO SPONSOR VALUES(100, 'ENEL', NULL);

SELECT * FROM SPONSOR;

INSERT INTO CAMPANIE VALUES(1, 'CAMP1', sysdate, to_date('20-06-2021', 'dd-mm-yyyy'), 1200, 10);
INSERT INTO CAMPANIE VALUES(2, 'CAMP2', sysdate, to_date('25-07-2021', 'dd-mm-yyyy'), 3400, 20);
INSERT INTO CAMPANIE VALUES(3, 'CAMP3', sysdate, to_date('10-06-2021', 'dd-mm-yyyy'), NULL, 30);
INSERT INTO CAMPANIE VALUES(4, 'CAMP4', sysdate, to_date('20-06-2021', 'dd-mm-yyyy'), NULL, 40);
INSERT INTO CAMPANIE VALUES(5, 'CAMP5', sysdate, to_date('05-06-2021', 'dd-mm-yyyy'), 2200, 50);
INSERT INTO CAMPANIE VALUES(6, 'CAMP6', sysdate, to_date('15-08-2021', 'dd-mm-yyyy'), NULL, 60);
INSERT INTO CAMPANIE VALUES(7, 'CAMP7', sysdate, to_date('02-09-2021', 'dd-mm-yyyy'), 5500, 70);
INSERT INTO CAMPANIE VALUES(8, 'CAMP8', sysdate, to_date('10-10-2021', 'dd-mm-yyyy'), NULL, 20);
INSERT INTO CAMPANIE VALUES(9, 'CAMP9', sysdate, to_date('10-06-2021', 'dd-mm-yyyy'), 4000, 30);
INSERT INTO CAMPANIE VALUES(10, 'CAMP10', sysdate, to_date('25-09-2021', 'dd-mm-yyyy'), 3500, NULL);

SELECT * FROM CAMPANIE;

```

Script Output

Query Result

All Rows Fetched: 10 in 0.005 seconds

	COD_CAMPANIE	TITLU	DATA_START	DATA_END	VALOARE	COD_SPONSOR
1	1	CAMP1	30-APR-21	20-JUN-21	1200	10
2	2	CAMP2	30-APR-21	25-JUL-21	3400	20
3	3	CAMP3	30-APR-21	10-JUN-21	(null)	30
4	4	CAMP4	30-APR-21	20-JUN-21	(null)	40
5	5	CAMP5	30-APR-21	05-JUN-21	2200	50
6	6	CAMP6	30-APR-21	15-AUG-21	(null)	60
7	7	CAMP7	30-APR-21	02-SEP-21	5500	70
8	8	CAMP8	30-APR-21	10-OCT-21	(null)	20
9	9	CAMP9	30-APR-21	10-JUN-21	4000	30
10	10	CAMP10	30-APR-21	25-SEP-21	3500	(null)

Click on an identifier with the Control key down to perform "Go to Definition"

Line: 44 Column: 1 | Insert | Modified | Windows: CL

--ex 2: stergerea campaniilor care vor expira inainte de data 01-07-2021

DELETE FROM CAMPANIE

WHERE data_end < to_date('01-07-2021','dd-mm-yyyy');

--SELECT * FROM CAMPANIE;

ROLLBACK;

Oracle SQL Developer: Raluca

File Edit View Navigate Run Source Team Tools Window Help

Connections

Oracle Connections

Raluca

Tables (Filtered)

CAMPANIE

COUNTRIES

COUNTRY_ID

COUNTRY_NAME

REGION_ID

DEPARTMENTS

DEPARTMENT_ID

DEPARTMENT_NAME

MANAGER_ID

LOCATION_ID

EMPLOYEES

JOB_GRADES

JOB_HISTORY

JOBS

LOCATIONS

PROJECT

REGIONS

REGION_ID

REGION_NAME

SPONSOR

SPONSOR

Worksheet

Query Builder

```

INSERT INTO CAMPANIE VALUES(1, 'CAMP1', sysdate, to_date('20-06-2021', 'dd-mm-yyyy'), 1200, 10);
INSERT INTO CAMPANIE VALUES(2, 'CAMP2', sysdate, to_date('25-07-2021', 'dd-mm-yyyy'), 3400, 20);
INSERT INTO CAMPANIE VALUES(3, 'CAMP3', sysdate, to_date('10-06-2021', 'dd-mm-yyyy'), NULL, 30);
INSERT INTO CAMPANIE VALUES(4, 'CAMP4', sysdate, to_date('20-06-2021', 'dd-mm-yyyy'), NULL, 40);
INSERT INTO CAMPANIE VALUES(5, 'CAMP5', sysdate, to_date('05-06-2021', 'dd-mm-yyyy'), 2200, 50);
INSERT INTO CAMPANIE VALUES(6, 'CAMP6', sysdate, to_date('15-08-2021', 'dd-mm-yyyy'), NULL, 60);
INSERT INTO CAMPANIE VALUES(7, 'CAMP7', sysdate, to_date('02-09-2021', 'dd-mm-yyyy'), 5500, 70);
INSERT INTO CAMPANIE VALUES(8, 'CAMP8', sysdate, to_date('10-10-2021', 'dd-mm-yyyy'), NULL, 20);
INSERT INTO CAMPANIE VALUES(9, 'CAMP9', sysdate, to_date('10-06-2021', 'dd-mm-yyyy'), 4000, 30);
INSERT INTO CAMPANIE VALUES(10, 'CAMP10', sysdate, to_date('25-09-2021', 'dd-mm-yyyy'), 3500, NULL);

SELECT * FROM CAMPANIE;

COMMIT

DELETE FROM CAMPANIE
WHERE data_end < to_date('01-07-2021','dd-mm-yyyy');

SELECT * FROM CAMPANIE;

ROLLBACK;

```

Script Output

Query Result

All Rows Fetched: 5 in 0.002 seconds

	COD_CAMPANIE	TITLU	DATA_START	DATA_END	VALOARE	COD_SPONSOR
1	2	CAMP2	30-APR-21	25-JUL-21	3400	20
2	6	CAMP6	30-APR-21	15-AUG-21	(null)	60
3	7	CAMP7	30-APR-21	02-SEP-21	5500	70
4	8	CAMP8	30-APR-21	10-OCT-21	(null)	20
5	10	CAMP10	30-APR-21	25-SEP-21	3500	(null)

Line: 52 Column: 1 | Insert | Modified | Windows: CL

--ex 3: Sa se modifice valoarea tuturor campaniilor, aplicandu-se o

--majorare cu 25%. Daca o campanie nu are valoare, atunci ea este o campanie

--caritabila si se va completa cu textul "Campanie Caritabila".

UPDATE CAMPANIE

SET valoare = to_char(to_number(valoare, '9999') + 0.25 * to_number(valoare, '9999'))

WHERE valoare IS NOT NULL;

UPDATE CAMPANIE

SET valoare = 'Campanie Caritabila'

WHERE valoare IS NULL;

ROLLBACK;

--SELECT * FROM CAMPANIE;

The screenshot displays the Oracle SQL Developer interface. The main window shows a SQL script with the following content:

```
SELECT * FROM CAMPANIE;

ROLLBACK;

--ex 3

UPDATE CAMPANIE
SET valoare = to_char(to_number(valoare, '9999') + 0.25 * to_number(valoare, '9999'))
WHERE valoare IS NOT NULL;

UPDATE CAMPANIE
SET valoare = 'Campanie Caritabila'
WHERE valoare IS NULL;

ROLLBACK;

SELECT * FROM CAMPANIE;
```

The bottom pane shows the query results for the final SELECT statement. The results are as follows:

CCD_CAMPANIE	TITLU	DATA_START	DATA_END	VALOARE	CCD_SPONSOR
1	CAMP1	30-APR-21	20-JUN-21	1500	10
2	CAMP2	30-APR-21	25-JUL-21	4250	20
3	CAMP3	30-APR-21	10-JUN-21	Campanie Caritabila	30
4	CAMP4	30-APR-21	20-JUN-21	Campanie Caritabila	40
5	CAMP5	30-APR-21	05-JUN-21	2750	50
6	CAMP6	30-APR-21	15-AUG-21	Campanie Caritabila	60
7	CAMP7	30-APR-21	02-SEP-21	6875	70
8	CAMP8	30-APR-21	10-OCT-21	Campanie Caritabila	20
9	CAMP9	30-APR-21	10-JUN-21	5000	30
10	CAMP10	30-APR-21	25-SEP-21	4375	(null)

--ex 4: Sa se stearga sponsorul 20 din baza de date.

--sponsorul cu codul de identificare 20 este legat de doua campanii

--se sterge constrangerea prin care cod_sponsor este facut cheie externa in tabelul CAMPANIE

ALTER TABLE CAMPANIE

DROP CONSTRAINT SYS_C0012848;

--se adauga o noua constrangere, de aceasta data adaugand si ON DELETE SET NULL, instructiune ce

--determina modificarea automata a valorilor cheii externe la valoarea null, atunci când se șterge

--valoarea părinte

ALTER TABLE CAMPANIE

ADD CONSTRAINT fk_camp_sp foreign key(cod_sponsor) references sponsor(cod_sponsor) ON DELETE SET NULL;

--se sterge sponsorul cu codul de identificare 20

DELETE FROM SPONSOR

WHERE cod_sponsor = 20;

--se anuleaza modificarile

ROLLBACK;

The screenshot displays the Oracle SQL Developer interface. The main window shows a SQL script with the following content:

```
UPDATE CAMPANIE
SET valoare = 'Campanie Caritabila'
WHERE valoare IS NULL;

ROLLBACK;

SELECT * FROM CAMPANIE;

--ex 4
ALTER TABLE CAMPANIE
DROP CONSTRAINT SYS_C0012839;

ALTER TABLE CAMPANIE
ADD CONSTRAINT fk_camp_sp foreign key(cod_sponsor) references sponsor(cod_sponsor) on DELETE SET NULL;

DELETE FROM SPONSOR
WHERE cod_sponsor = 20;

SELECT * FROM SPONSOR;
```

Below the script, the 'Script Output' window shows the results of the 'SELECT * FROM SPONSOR;' query. The output is a table with 9 rows and 3 columns: COD_SPONSOR, NAME, and EMAIL.

COD_SPONSOR	NAME	EMAIL
1	10 CISCO	cisco@gmail.com
2	30 ADOBE	adobe@adobe.com
3	40 BRO	(null)
4	50 VODAFONE	vdf@gmail.com
5	60 BCR	(null)
6	70 SAMSUNG	(null)
7	80 IBM	ibm@ibm.com
8	90 OMV	(null)
9	100 ENEL	(null)

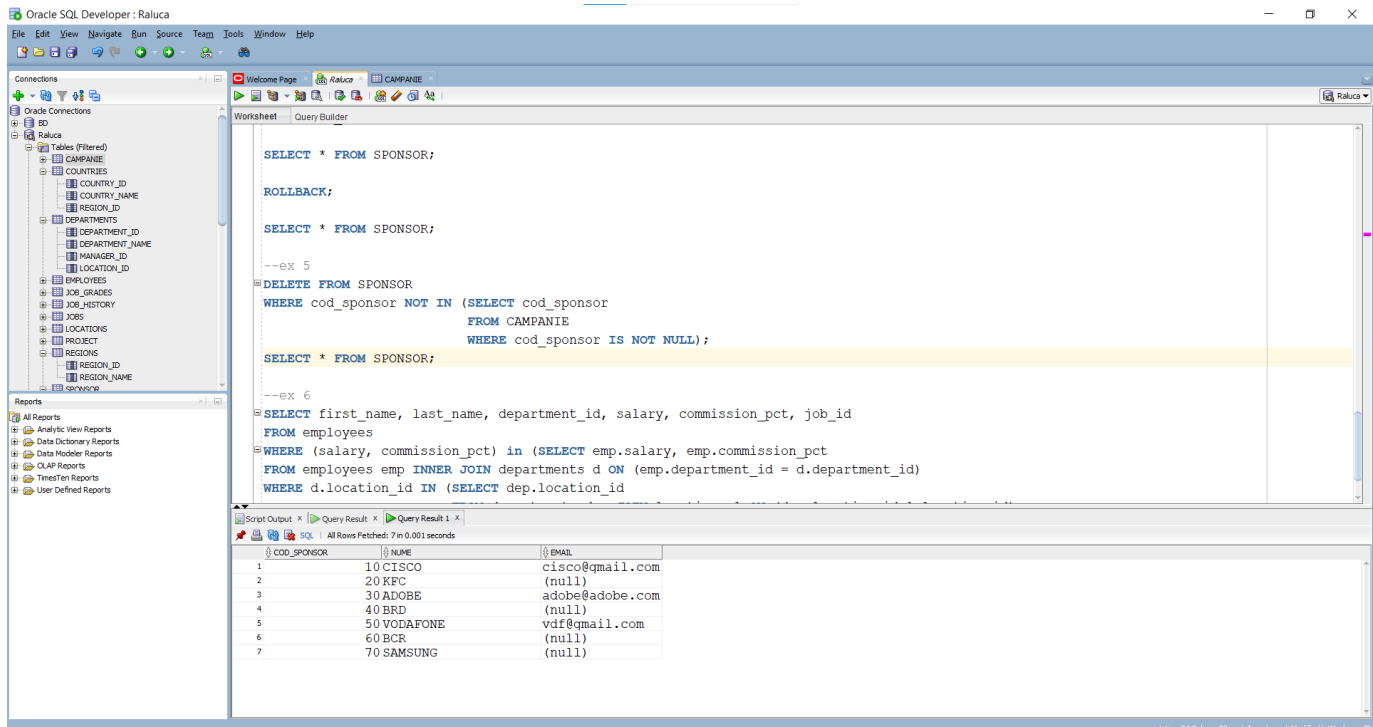
--ex 5 : Stergeti sponsorii care nu sponsorizeaza nicio campanie

DELETE FROM SPONSOR

WHERE cod_sponsor NOT IN (SELECT cod_sponsor

FROM CAMPANIE

WHERE cod_sponsor IS NOT NULL);



--ex 6 : Să se afișeze numele angajatilor, departamentul, salariul și job-ul

--tuturor angajaților al căror salariu și comision coincid cu salariul și comisionul unui

--angajat din Oxford. Exercitiul se rezolva utilizand diagrama HR.

SELECT first_name, last_name, department_id, salary, commission_pct, job_id

FROM employees

WHERE (salary, commission_pct) in (SELECT emp.salary, emp.commission_pct

FROM employees emp INNER JOIN departments d ON (emp.department_id = d.department_id)

WHERE d.location_id IN (SELECT dep.location_id

FROM departments dep JOIN locations l ON (dep.location_id=l.location_id)

WHERE lower(l.city) LIKE 'oxford'));