Gestionarea unui lant hotelier Realizat de: Flutur Angelica-Costela, grupa 241

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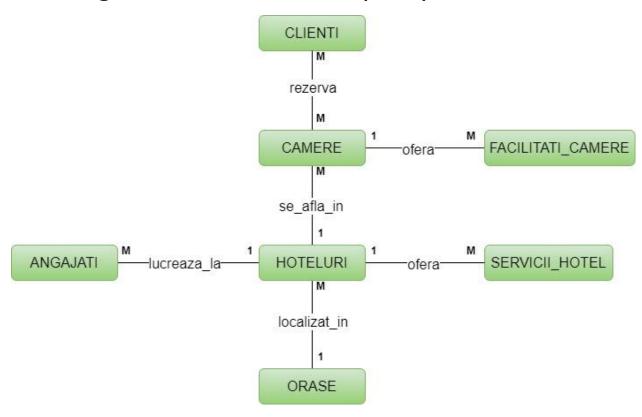
1. Prezentarea bazei de date

Acest proiect prezinta proiectarea unei baze de date pentru un lant hotelier.

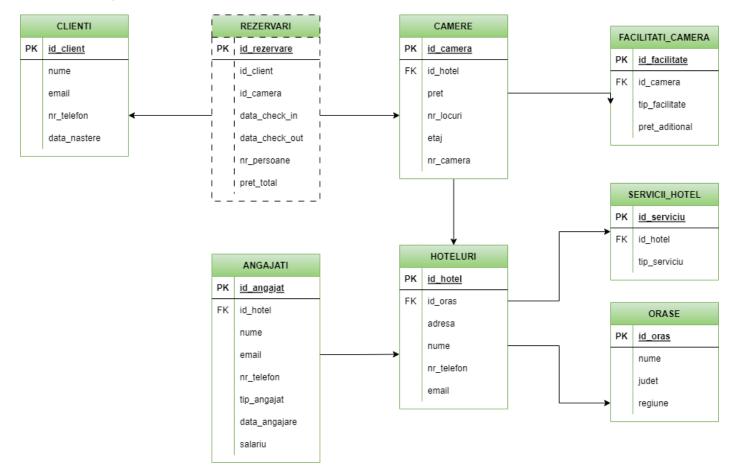
Aceasta baza de date contine informatii despre hotelurile inregistrate, cum ar fi numele, orasul si strada in care se afla, angajati, camere, serviciile oferite de hotel precum si facilitatile disponibile din fiecare camera care vin cu un pret aditional.

Aceasta baza de date ne ofera posibilitatea de a efectua rezervari pentru camerele dorite de client.

2. Diagrama entitate-relatie (ERD)



3. Diagrama conceptuala



4. Crearea tabelelor

```
CREATE TABLE camere (
   id hotel
   pret
   etaj
   FOREIGN KEY ( id hotel )
      REFERENCES hoteluri ( id hotel )
);
CREATE TABLE angajati (
  id angajat NUMBER PRIMARY KEY,
               VARCHAR2 (200),
   email
         VARCHAR2(200),
   nr telefon VARCHAR2 (200),
   tip angajat VARCHAR2(200) CHECK (tip angajat IN ('manager',
'receptioner')),
   data angajare DATE,
   salariu NUMBER,
   FOREIGN KEY (id hotel) REFERENCES hoteluri (id hotel) ON DELETE SET
NULL
);
CREATE TABLE clienti (
   email VARCHAR2(200),
   data nastere DATE
);
CREATE TABLE rezervari (
```

```
id rezervare NUMBER PRIMARY KEY,
   nr persoane NUMBER,
                  DECIMAL(10, 2),
   pret total
);
CREATE TABLE facilitati camera (
   id facilitate NUMBER PRIMARY KEY,
par', 'fier de calcat', 'WI-FI', 'aer conditionat', 'TV')),
   pret aditional DECIMAL(10, 2),
       REFERENCES camere ( id camera )
);
CREATE TABLE servicii hotel (
   id serviciu NUMBER PRIMARY KEY,
   id hotel NUMBER,
   FOREIGN KEY ( id hotel )
       REFERENCES hoteluri ( id hotel )
```

5. Inserarea datelor

```
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq_orase.nextval, 'Bucuresti', 'Bucuresti', 'Muntenia');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Ploiesti', 'Prahova', 'Muntenia');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Braila', 'Braila', 'Muntenia');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seg orase.nextval, 'Pitesti', 'Arges', 'Muntenia');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Buzau', 'Buzau', 'Muntenia');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Cluj-Napoca', 'Cluj', 'Transilvania');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Brasov', 'Brasov', 'Transilvania');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Targu Mures', 'Mures', 'Transilvania');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Sibiu', 'Sibiu', 'Transilvania');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Iasi', 'Iasi', 'Moldova');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Galati', 'Galati', 'Moldova');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq orase.nextval, 'Bacau', 'Bacau', 'Moldova');
INSERT INTO orase (id oras, nume, judet, regiune) VALUES
(seq_orase.nextval, 'Botosani', 'Botosani', 'Moldova');
SELECT * FROM orase;
```

		∜ NUME	♦ JUDET	
1	1	Bucuresti	Bucuresti	Muntenia
2	2	Ploiesti	Prahova	Muntenia
3	3	Braila	Braila	Muntenia
4	4	Pitesti	Arges	Muntenia
5	5	Buzau	Buzau	Muntenia
6	6	Cluj-Napoca	Cluj	Transilvania
7	7	Brasov	Brasov	Transilvania
8	8	Targu Mures	Mures	Transilvania
9	9	Sibiu	Sibiu	Transilvania
10	10	Iasi	Iasi	Moldova
11	11	Galati	Galati	Moldova
12	12	Bacau	Bacau	Moldova
13	13	Botosani	Botosani	Moldova

```
INSERT INTO hoteluri (id hotel, id oras, adresa, nume, nr telefon, email)
VALUES
(seq hoteluri.nextval, 1, 'Str. Primaverii, Nr. 4', 'Hotel Ambiance',
'0789541124', 'hotelambiance@gmail.com');
INSERT INTO hoteluri (id hotel, id oras, adresa, nume, nr telefon, email)
(seq hoteluri.nextval, 2, 'Str. Libertatii, Nr. 32', 'Hotel Aurora',
'0715487966', 'hotelaurora@gmail.com');
INSERT INTO hoteluri (id hotel, id oras, adresa, nume, nr telefon, email)
VALUES
(seq hoteluri.nextval, 3, 'Str. Aurora, Nr. 43', 'Hotel Dunarea',
'0723456789', 'hoteldunarea@gmail.com');
INSERT INTO hoteluri (id hotel, id oras, adresa, nume, nr telefon, email)
(seq hoteluri.nextval, 4, 'Str. Mihai Eminescu, Nr. 7', 'Hotel Splendid',
'0734567890', 'hotelsplendid@gmail.com');
INSERT INTO hoteluri (id hotel, id oras, adresa, nume, nr telefon, email)
(seq hoteluri.nextval, 5, 'Str. Florilor, Nr. 124', 'Hotel Paradis',
'0745678901', 'hotelparadis@gmail.com');
INSERT INTO hoteluri (id hotel, id oras, adresa, nume, nr telefon, email)
(seq hoteluri.nextval, 6, 'Str. Revolutiei, Nr. 63', 'Hotel Elegance',
'0756789012', 'hotelelegance@gmail.com');
```

```
INSERT INTO hoteluri (id_hotel, id_oras, adresa, nume, nr_telefon, email)
VALUES
(seq_hoteluri.nextval, 7, 'Str. Victoriei, Nr. 11', 'Hotel Panorama',
'0767890123', 'hotelpanorama@gmail.com');
INSERT INTO hoteluri (id_hotel, id_oras, adresa, nume, nr_telefon, email)
VALUES
(seq_hoteluri.nextval, 8, 'Str. Trandafirilor, Nr. 55', 'Hotel Miralux',
'0778901234', 'hotelmiralux@gmail.com');
INSERT INTO hoteluri (id_hotel, id_oras, adresa, nume, nr_telefon, email)
VALUES
(seq_hoteluri.nextval, 9, 'Str. Crinilor, Nr. 72', 'Hotel Olimpia',
'0801234567', 'hotelolimpia@gmail.com');
INSERT INTO hoteluri (id_hotel, id_oras, adresa, nume, nr_telefon, email)
VALUES
(seq_hoteluri.nextval, 10, 'Str. Aleea Parcului, Nr. 23', 'Hotel Diamant',
'0790123456', 'hoteldiamant@gmail.com');
select * from hoteluri;
```

		∮ ID_ORAS ∮ AI	ADRESA	∯ NUME		
1	11	(null) (nu	ull)	Hotel Dunarea	(null)	(null)
2	1	1 St:	r. Primaverii, Nr. 4	Hotel Ambiance	0789541124	hotelambiance@gmail.com
3	2	2 St:	r. Libertatii, Nr. 32	Hotel Aurora	0715487966	hotelaurora@gmail.com
4	3	3 St:	r. Aurora, Nr. 43	Hotel Dunarea	0723456789	hoteldunarea@gmail.com
5	4	4 St:	r. Mihai Eminescu, Nr. 7	Hotel Splendid	0734567890	hotelsplendid@gmail.com
6	5	5 St	r. Florilor, Nr. 124	Hotel Paradis	0745678901	hotelparadis@gmail.com
7	6	6 St				hotelelegance@gmail.com
8	7	7 St:	r. Victoriei, Nr. 11	Hotel Panorama	0767890123	hotelpanorama@gmail.com
9	8	8 St:	r. Trandafirilor, Nr. 55	Hotel Miralux	0778901234	hotelmiralux@gmail.com
10	9	9 St:	r. Crinilor, Nr. 72	Hotel Olimpia	0801234567	hotelolimpia@gmail.com
11	10	10 St:	r. Aleea Parcului, Nr. 23	Hotel Diamant	0790123456	hoteldiamant@gmail.com

```
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 2, 'Elena Ionescu',
'YYYY-MM-DD'), 5000);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 2, 'Ion Munteanu', 'ion.munteanu@gmail.com',
'1234', 'receptioner', TO DATE('2022-06-01', 'YYYY-MM-DD'), 4500);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 3, 'Gabriela Stoica',
'gabriela.stoica@gmail.com', '1234', 'manager', TO DATE('2019-02-01',
'YYYY-MM-DD'), 5000);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 3, 'Vlad Stanescu',
'vlad.stanescu@gmail.com', '1234', 'receptioner', TO_DATE('2016-04-01',
'YYYY-MM-DD'), 4500);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 4, 'Adriana Dumitru',
'adriana.dumitru@gmail.com', '1234', 'manager', TO DATE('2018-06-01',
'YYYY-MM-DD'), 4000);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 4, 'Alexandru Iancu',
'YYYY-MM-DD'), 3000);
```

```
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 5, 'Maria Radu', 'maria.radu@gmail.com',
'1234', 'manager', TO DATE('2017-07-01', 'YYYY-MM-DD'), 4000);
INSERT INTO angajati (id_angajat, id_hotel, nume, email, nr_telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 5, 'Florin Manea', 'florin.manea@gmail.com',
'1234', 'receptioner', TO DATE('2019-11-01', 'YYYY-MM-DD'), 3800);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 6, 'Ioana Tudor', 'ioana.tudor@gmail.com',
'1234', 'manager', TO DATE('2020-09-01', 'YYYY-MM-DD'), 4000);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 6, 'Cristian Dumitrescu',
'cristian.dumitrescu@gmail.com', '1234', 'receptioner',
TO DATE('2021-02-01', 'YYYY-MM-DD'), 4000);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 7, 'Alina Mihai', 'alina.mihai@gmail.com',
'1234', 'manager', TO DATE('2018-07-01', 'YYYY-MM-DD'), 3800);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seg angajati.nextval, 7, 'Gabriel Cojocaru',
INSERT INTO angajati (id_angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 8, 'Daniela Vasilescu',
'daniela.vasilescu@gmail.com', '1234', 'manager', TO DATE('2019-09-01',
```

```
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 8, 'Radu Gheorghe',
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 9, 'Ruxandra Andrei',
'ruxandra.andrei@gmail.com', '1234', 'manager', TO DATE('2015-10-01',
'YYYY-MM-DD'), 3200);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 9, 'Marius Neagu', 'marius.neagu@gmail.com',
'1234', 'receptioner', TO DATE('2017-12-01', 'YYYY-MM-DD'), 3500);
-- 10
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seq angajati.nextval, 10, 'Andreea Ciobanu',
'andreea.ciobanu@gmail.com', '1234', 'manager', TO_DATE('2019-07-01',
'YYYY-MM-DD'), 5600);
INSERT INTO angajati (id angajat, id hotel, nume, email, nr telefon,
tip angajat, data angajare, salariu)
VALUES (seg angajati.nextval, 10, 'Adrian Preda',
'YYYY-MM-DD'), 5500);
select * from angajati;
```

		D_HOTEL		⊕ NR_TELEFON			SALARIU
1	21	1 Ana Maria Popescu	ana.popescu@gmail.com	1234	manager	01-MAY-15	3500
2	22	1 Andrei Popa	andrei.popa@gmail.com	1234	receptioner	01-JUL-16	2500
3	23	2 Elena Ionescu	elena.ionescu@gmail.com	1234	manager	01-AUG-21	5000
4	24	2 Ion Munteanu	ion.munteanu@gmail.com	1234	receptioner	01-JUN-22	4500
5	25	3 Gabriela Stoica	gabriela.stoica@gmail.com	1234	manager	01-FEB-19	5000
6	26	3 Vlad Stanescu	vlad.stanescu@gmail.com	1234	receptioner	01-APR-16	4500
7	27	4 Adriana Dumitru	adriana.dumitru@gmail.com	1234	manager	01-JUN-18	4000
8	28	4 Alexandru Iancu	alexandru.iancu@gmail.com	1234	receptioner	01-AUG-22	3000
9	29	5 Maria Radu	maria.radu@gmail.com	1234	manager	01-JUL-17	4000
10	30	5 Florin Manea	florin.manea@gmail.com	1234	receptioner	01-NOV-19	3800
11	31	6 Ioana Tudor	ioana.tudor@gmail.com	1234	manager	01-SEP-20	4000
12	32	6 Cristian Dumitrescu	cristian.dumitrescu@gmail.com	1234	receptioner	01-FEB-21	4000
13	33	7 Alina Mihai	alina.mihai@gmail.com	1234	manager	01-JUL-18	3800
14	34	7 Gabriel Cojocaru	gabriel.cojocaru@gmail.com	1234	receptioner	01-JUN-16	3600
15	35	8 Daniela Vasilescu	daniela.vasilescu@gmail.com	1234	manager	01-SEP-19	3200
16	36	8 Radu Gheorghe	radu.gheorghe@gmail.com	1234	receptioner	01-JUN-21	3500
17	37	9 Ruxandra Andrei	ruxandra.andrei@gmail.com	1234	manager	01-OCT-15	3200
18	38	9 Marius Neagu	marius.neagu@gmail.com	1234	receptioner	01-DEC-17	3500
19	39	10 Andreea Ciobanu	andreea.ciobanu@gmail.com	1234	manager	01-JUL-19	5600
20	40	10 Adrian Preda	adrian.preda@gmail.com	1234	receptioner	01-MAY-19	5500

```
INSERT INTO camere
(id_camera, id_hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 1, 200.00, 2, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 1, 512.00, 2, 1, 101);
INSERT INTO camere
(id_camera, id_hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 1, 643.00, 3, 1, 102);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 1, 150.00, 1, 1, 103);
INSERT INTO camere
(id_camera, id_hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 2, 1000.00, 3, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 2, 456.00, 2, 1, 101);
```

```
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 2, 153.00, 1, 1, 102);
-- 3
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 3, 500.00, 2, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 3, 878.00, 4, 1, 101);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 4, 442.00, 1, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 4, 561.00, 2, 1, 1011);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 4, 1210.00, 3, 1, 102);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 4, 123.00, 1, 1, 103);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 5, 894.00, 3, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 5, 154.00, 2, 1, 101);
INSERT INTO camere
```

```
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seg camere.nextval, 6, 200.00, 1, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 6, 250.00, 1, 1, 101);
-- 7
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 7, 895.00, 2, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 7, 100.00, 1, 1, 101);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 7, 560.00, 2, 1, 102);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 7, 900.00, 3, 1, 103);
INSERT INTO camere
(id camera, id hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 7, 450.00, 2, 1, 104);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 7, 1000.00, 4, 1, 105);
-- 8
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 8, 400.00, 2, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 8, 600.00, 3, 1, 101);
INSERT INTO camere
```

```
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 8, 200.00, 1, 1, 102);
INSERT INTO camere
(id_camera, id_hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 9, 2500.00, 4, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 9, 1550.00, 3, 1, 101);
-- 10
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 10, 350.00, 2, 1, 100);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 10, 350.00, 2, 1, 101);
INSERT INTO camere
(id_camera, id_hotel, pret, nr_locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 10, 350.00, 2, 1, 102);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr camera)
VALUES (seq camere.nextval, 10, 350.00, 2, 1, 103);
INSERT INTO camere
(id camera, id hotel, pret, nr locuri, etaj, nr_camera)
VALUES (seq camere.nextval, 10, 450.00, 2, 1, 104);
SELECT * FROM camere;
```

			∯ PRET		∯ ETAJ	
1	1	1	200	2	1	100
2	2	1	512	2	1	101
3	3	1	643	3	1	102
4	4	1	150	1	1	103
5	5	2	1000	3	1	100
6	6	2	456	2	1	101
7	7	2	153	1	1	102
8	8	3	500	2	1	100
9	9	3	878	4	1	101
10	10	4	442	1	1	100
11	11	4	561	2	1	101
12	12	4	1210	3	1	102
13	13	4	123	1	1	103
14	14	5	894	3	1	100
15	15	5	154	2	1	101
16	16	6	200	1	1	100
17	17	6	250	1	1	101
18	18	7	895	2	1	100
19	19	7	100	1	1	101
20	20	7	560	2	1	102
21	21	7	900	3	1	103
22	22	7	450	2	1	104
23	23	7	1000	4	1	105
24	24	8	400	2	1	100
25	25	8	600	3	1	101
26	26	8	200	1	1	102
27	27	9	2500	4	1	100
28	28	9	1550	3	1	101
29	29	10	350	2	1	100
30	30	10	350	2	1	101
31	31	10	350	2	1	102
32	32	10	350	2	1	103
33	33	10	450	2	1	104

```
INSERT INTO servicii_hotel(id_serviciu, id_hotel, tip_serviciu)

VALUES(seq_servicii_hotel.nextval, 1, 'parcare');

INSERT INTO servicii_hotel(id_serviciu, id_hotel, tip_serviciu)
```

```
VALUES(seq servicii hotel.nextval, 1, 'restaurant');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 1, 'room service');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 1, 'sala fitness');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 1, 'spa');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 2, 'parcare');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 3, 'restaurant');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 4, 'room service');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 6, 'sala fitness');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 9, 'spa');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 10, 'parcare');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seg servicii hotel.nextval, 10, 'restaurant');
INSERT INTO servicii hotel(id serviciu, id hotel, tip serviciu)
VALUES(seq servicii hotel.nextval, 10, 'room service');
SELECT * FROM servicii hotel;
```

	A TD . GED. (TOTAL)	A TO LIGHTS	A TIP OFFICIAL
1	1	1	parcare
2	2	1	restaurant
3	3	1	room service
4	4	1	sala fitness
5	5	1	spa
6	6	2	parcare
7	7	3	restaurant
8	8	4	room service
9	9	6	sala fitness
10	10	9	spa
11	11	10	parcare
12	12	10	restaurant
13	13	10	room service

```
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 1, 'uscator de par', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 1, 'fier de calcat', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 1, 'WI-FI', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 1, 'aer conditionat', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 5, 'TV', 50);
INSERT INTO facilitati camera
(id_facilitate, id_camera, tip_facilitate, pret_aditional)
VALUES(seq facilitati camera.nextval, 5, 'uscator de par', 50);
```

```
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 7, 'uscator de par', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 7, 'fier de calcat', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 7, 'WI-FI', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 8, 'aer conditionat', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 8, 'TV', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq_facilitati_camera.nextval, 9, 'uscator de par', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 9, 'uscator de par', 50);
INSERT INTO facilitati camera
(id facilitate, id camera, tip facilitate, pret aditional)
VALUES(seq facilitati camera.nextval, 10, 'fier de calcat', 50);
INSERT INTO facilitati camera
(id_facilitate, id_camera, tip_facilitate, pret_aditional)
VALUES(seq facilitati camera.nextval, 10, 'WI-FI', 50);
INSERT INTO facilitati camera
(id_facilitate, id_camera, tip_facilitate, pret_aditional)
VALUES(seq facilitati camera.nextval, 10, 'aer conditionat', 50);
```

```
INSERT INTO facilitati_camera
(id_facilitate, id_camera, tip_facilitate, pret_aditional)
VALUES(seq_facilitati_camera.nextval, 2, 'TV', 50);

INSERT INTO facilitati_camera
(id_facilitate, id_camera, tip_facilitate, pret_aditional)
VALUES(seq_facilitati_camera.nextval, 2, 'uscator de par', 50);

SELECT * FROM facilitati_camera;
```

			↑ TIP_FACILITATE	PRET_A
1	1	1	uscator de par	50
2	2	1	fier de calcat	50
3	3	1	WI-FI	50
4	4	1	aer conditionat	50
5	5	5	TV	50
6	6	5	uscator de par	50
7	7	7	uscator de par	50
8	8	7	fier de calcat	50
9	9		WI-FI	50
10	10	8	aer conditionat	50
11	11	8	TV	50
12	12	9	uscator de par	50
13	13	9	uscator de par	50
14	14	10	fier de calcat	50
15	15	10	WI-FI	50
16	16	10	fier de calcat	50
17	17	10	WI-FI	50
18	18	10	aer conditionat	50
19	19	2	VT	50
20	20	2	uscator de par	50

```
INSERT INTO clienti (id client, nume, email, nr telefon, data nastere)
VALUES (seg clienti.nextval, 'Mihai Ionescu', 'mihai.ionescu@gmail.com',
'0723456789', TO DATE('1988-11-22', 'YYYY-MM-DD'));
INSERT INTO clienti (id client, nume, email, nr_telefon, data_nastere)
VALUES (seq_clienti.nextval, 'Elena Stoica', 'elena.stoica@gmail.com',
'0734567890', TO DATE('1995-07-10', 'YYYY-MM-DD'));
INSERT INTO clienti (id client, nume, email, nr telefon, data nastere)
VALUES (seq clienti.nextval, 'Ion Radu', 'ion.radu@gmail.com',
'0745678901', TO DATE('1993-03-01', 'YYYY-MM-DD'));
INSERT INTO clienti (id client, nume, email, nr telefon, data nastere)
VALUES (seq clienti.nextval, 'Andreea Mihai', 'andreea.mihai@gmail.com',
'0756789012', TO DATE('1992-09-20', 'YYYY-MM-DD'));
INSERT INTO clienti (id client, nume, email, nr telefon, data nastere)
VALUES (seq clienti.nextval, 'Alexandru Popa', 'alexandru.popa@gmail.com',
'0767890123', TO DATE('1991-06-17', 'YYYY-MM-DD'));
SELECT * FROM clienti;
⊕ NR TELEFON ⊕ DATA NASTERE
         1 Alexandra Popescu alexandra.popescu@gmail.com 0712345678 15-JAN-90
 2
         2 Mihai Ionescu mihai.ionescu@gmail.com
                                                     0723456789 22-NOV-88
                          elena.stoica@gmail.com
 3
         3 Elena Stoica
                                                     0734567890 10-JUL-95
                          ion.radu@gmail.com
         4 Ion Radu
                                                     0745678901 01-MAR-93
                          andreea.mihai@gmail.com
                                                     0756789012 20-SEP-92
         5 Andreea Mihai
         6 Alexandru Popa alexandru.popa@gmail.com
                                                     0767890123 17-JUN-91
```

```
· (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 1));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data_check_out, nr_persoane, pret_total)
VALUES (seq rezervari.nextval, 1, 2,
TO DATE('2023-11-11', 'YYYY-MM-DD'),
TO DATE('2023-11-14', 'YYYY-MM-DD'), 3,
(SELECT pret FROM CAMERE WHERE id camera = 2)
* (TO DATE('2023-11-14', 'YYYY-MM-DD') - TO DATE('2023-11-11',
'YYYY-MM-DD'))
- (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 2);
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 2, 4,
TO DATE('2023-12-25', 'YYYY-MM-DD'),
TO DATE('2023-12-27', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 4)
'YYYY-MM-DD'))
(select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 4));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seg rezervari.nextval, 3, 5,
TO DATE('2023-10-01', 'YYYY-MM-DD'),
TO_DATE('2023-10-05', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 5)
'YYYY-MM-DD'))
+ (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 5));
```

```
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 4, 7,
TO DATE('2023-11-19', 'YYYY-MM-DD'),
TO DATE('2023-11-20', 'YYYY-MM-DD'), 1,
(SELECT pret FROM CAMERE WHERE id camera = 7)
'YYYY-MM-DD'))
- (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 7));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 5, 8,
TO DATE('2024-01-05', 'YYYY-MM-DD'),
TO DATE('2024-01-07', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 8)
'YYYY-MM-DD'))
(select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 8));
-- 7
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seg rezervari.nextval, 6, 10,
TO DATE('2024-01-11', 'YYYY-MM-DD'),
TO DATE('2024-01-14', 'YYYY-MM-DD'), 1,
(SELECT pret FROM CAMERE WHERE id camera = 10)
('2024-01-14', 'YYYY-MM-DD') - TO DATE ('2024-01-11',
'YYYY-MM-DD'))
+ (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 10));
-- 8
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 5, 11,
TO DATE('2024-02-21', 'YYYY-MM-DD'),
```

```
TO DATE('2024-02-26', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 11)
'YYYY-MM-DD'))
+ (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 11));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 3, 12,
TO DATE('2024-03-01', 'YYYY-MM-DD'),
TO DATE('2024-03-06', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 12)
' (TO DATE('2024-03-06', 'YYYY-MM-DD') - TO DATE('2024-03-01',
'YYYY-MM-DD'))
· (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 12));
-- 10
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr_persoane, pret_total)
VALUES (seq rezervari.nextval, 4, 15,
TO DATE('2024-03-08', 'YYYY-MM-DD'),
TO DATE('2024-03-12', 'YYYY-MM-DD'), 1,
(SELECT pret FROM CAMERE WHERE id camera = 15)
'YYYY-MM-DD'))
+ (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 15));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 6, 13,
TO DATE('2023-11-23', 'YYYY-MM-DD'),
TO_DATE('2023-11-26', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 13)
```

```
+ (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 13));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 6, 14,
TO DATE('2023-11-11', 'YYYY-MM-DD'),
TO DATE('2023-11-14', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 15)
(TO DATE('2023-11-14', 'YYYY-MM-DD') - TO DATE('2023-11-11',
'YYYY-MM-DD'))
(select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 14));
-- 13
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 4, 11,
TO DATE('2023-12-25', 'YYYY-MM-DD'),
TO DATE('2023-12-27', 'YYYY-MM-DD'), 1,
(SELECT pret FROM CAMERE WHERE id camera = 11)
 (TO DATE('2023-12-27', 'YYYY-MM-DD') - TO_DATE('2023-12-25',
'YYYY-MM-DD'))
(select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 11));
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 2, 8,
TO DATE('2023-10-01', 'YYYY-MM-DD'),
TO_DATE('2023-10-05', 'YYYY-MM-DD'), 2,
(SELECT pret FROM CAMERE WHERE id camera = 8)
* (TO DATE('2023-10-05', 'YYYY-MM-DD') - TO DATE('2023-10-01',
'YYYY-MM-DD'))
+ (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 8));
```

```
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES (seq rezervari.nextval, 1, 16,
TO DATE('2023-11-19', 'YYYY-MM-DD'),
TO DATE('2023-11-20', 'YYYY-MM-DD'), 1,
(SELECT pret FROM CAMERE WHERE id camera = 16)
 (TO DATE('2023-11-20', 'YYYY-MM-DD') - TO DATE('2023-11-19',
'YYYY-MM-DD'))
 · (select nvl(sum(pret aditional),0) from facilitati camera where
id camera = 16));
SELECT * FROM REZERVARI;
    ♦ ID_REZERVARE | ♦ ID_CLIENT | ♦ ID_CAMERA | ♦ DATA_CHECK_IN | ♦ DATA_CHECK_OUT | ♦ NR_PERSOANE | ♦ PRET_TOTAL |
  1
              1
                      1
                                123-NOV-23
                                              26-NOV-23
                                                                      3
                                                                              800
              2
                                                                      3
  2
                      1
                                2 11-NOV-23
                                             14-NOV-23
                                                                             1636
              3
                      2
                                                                      2
  3
                                4 25-DEC-23
                                              27-DEC-23
                                                                              300
                                                                      2
  4
              4
                      3
                                5 01-OCT-23
                                              05-OCT-23
                                                                             4100
  5
              5
                      4
                                719-NOV-23
                                              20-NOV-23
                                                                      1
                                                                              303
              6
                      5
                                8 05-JAN-24
                                             07-JAN-24
                                                                      2
  6
                                                                             1100
              7
                      6
  7
                               10 11-JAN-24 14-JAN-24
                                                                      1
                                                                             1576
                      5
                                                                      2
  8
              8
                               11 21-FEB-24
                                              26-FEB-24
                                                                             2805
              9
                      3
                                                                      2
  9
                                             06-MAR-24
                                                                             6050
                               12 01-MAR-24
 10
             10
                      4
                               15 08-MAR-24 12-MAR-24
                                                                      1
                                                                              616
```

13 23-NOV-23

14 11-NOV-23

11 25-DEC-23

8 01-OCT-23

16 19-NOV-23 20-NOV-23

26-NOV-23

14-NOV-23

27-DEC-23

05-OCT-23

6. Subprogram stocat independent cu 2 tipuri de colectii

Creati o procedura care sa afiseze pentru fiecare hotel numele angajatilor, salariul si functia acestora.

```
CREATE OR REPLACE PROCEDURE exercitiul 6 AS
   TYPE tablou indexat IS TABLE OF hoteluri.nume%TYPE INDEX BY
PLS INTEGER;
   TYPE vector nume functie IS VARRAY(50) OF angajati.nume%TYPE;
   v nume angajati vector nume functie;
   TYPE vector salariu IS VARRAY(50) OF angajati.salariu%TYPE;
   v salarii vector salariu;
   v id hotel hoteluri.id hotel%TYPE;
   BULK COLLECT INTO v nume hoteluri
   FROM hoteluri;
   FOR i IN 1..v nume hoteluri.COUNT LOOP
       SELECT id hotel INTO v id hotel
       FROM hoteluri
       WHERE nume = v nume hoteluri(i);
       SELECT nume, salariu, tip angajat
```

```
BULK COLLECT INTO v nume angajati, v salarii, v functii
       FROM angajati
       IF v nume angajati.COUNT = 0 THEN
           DBMS OUTPUT.PUT LINE('Hotelul nu are angajati inregistrati.');
           FOR j IN 1..v nume angajati.COUNT LOOP
               DBMS OUTPUT.PUT LINE(v nume angajati(j) || ' - Salariu: '
           END LOOP;
       END IF;
DBMS OUTPUT.PUT LINE('-----
-----');
END;
BEGIN
END;
```

```
Hotel: Hotel Ambiance
Worksheet Query Builder
                                                                            Ana Maria Popescu - Salariu: 3500 - Functie: manager
12 CREATE OR REPLACE PROCEDURE exercitiul_6 AS
                                                                            Andrei Popa - Salariu: 2500 - Functie: receptioner
13
        -- tablou indexat numele hotelurilor
        TYPE tablou indexat IS TABLE OF hoteluri.nume%TYPE INDEX BY PLS
14
                                                                            Hotel: Hotel Aurora
15
        v_nume_hoteluri tablou_indexat := tablou_indexat();
                                                                            Elena Ionescu - Salariu: 5000 - Functie: manager
16
                                                                            Ion Munteanu - Salariu: 4500 - Functie: receptioner
17
        -- vector pentru numele angajatilor
18
       TYPE vector nume functie IS VARRAY(50) OF angajati.nume%TYPE;
                                                                            Hotel: Hotel Dunarea
       v nume angajati vector nume functie;
19
                                                                            Gabriela Stoica - Salariu: 5000 - Functie: manager
20
       v_functii vector_nume_functie;
                                                                            Vlad Stanescu - Salariu: 4500 - Functie: receptioner
21
22
        -- vector pentru salarii
                                                                            Hotel: Hotel Splendid
23
       TYPE vector salariu IS VARRAY(50) OF angajati.salariu%TYPE;
                                                                            Adriana Dumitru - Salariu: 4000 - Functie: manager
        v_salarii vector_salariu;
                                                                            Alexandru Iancu - Salariu: 3000 - Functie: receptioner
25
26
        v id hotel hoteluri.id hotel%TYPE;
                                                                            Hotel: Hotel Paradis
27 BEGIN
                                                                            Maria Radu - Salariu: 4000 - Functie: manager
28
        -- populez tabloul indexat cu numele hotelurilor
                                                                            Florin Manea - Salariu: 3800 - Functie: receptioner
29
30
       BULK COLLECT INTO v_nume_hoteluri
                                                                            Hotel: Hotel Elegance
31
       FROM hoteluri;
                                                                            Ioana Tudor - Salariu: 4000 - Functie: manager
32
                                                                            Cristian Dumitrescu - Salariu: 4000 - Functie: receptioner
33
        -- parcurg fiecare hotel in parte
34□
       FOR i IN 1..v_nume_hoteluri.COUNT LOOP
                                                                            Hotel: Hotel Panorama
                                                                            Alina Mihai - Salariu: 3800 - Functie: manager
Script Output ×  Query Result ×
                                                                            Gabriel Cojocaru - Salariu: 3600 - Functie: receptioner
📌 🥢 🖥 🚇 📓 | Task completed in 0.04 seconds
                                                                            Hotel: Hotel Miralux
                                                                            Daniela Vasilescu - Salariu: 3200 - Functie: manager
                                                                            Radu Gheorghe - Salariu: 3500 - Functie: receptioner
PL/SQL procedure successfully completed.
                                                                            Hotel: Hotel Olimpia
                                                                            Ruxandra Andrei - Salariu: 3200 - Functie: manager
```

7. Subprogram stocat independent cu 2 tipuri de cursoare

Mariti cu 15% salariul angajatilor dupa anul 2020 de la hotelurile dintr-o regiune data de la tastatura. Sa se afiseze salariul vechi si cel nou.

```
CREATE OR REPLACE PROCEDURE exercitiul_7(v_nume_regiune IN
orase.regiune%TYPE) IS
   -- cursor pentru id-ul si numele hotelurilor
   CURSOR c_hotel IS
        SELECT h.id_hotel, h.nume
        FROM hoteluri h JOIN orase o ON h.id_oras = o.id_oras
        WHERE o.regiune = v_nume_regiune;

-- cursor pentru angajati
   CURSOR c_angajati(v_id_hotel hoteluri.id_hotel%TYPE) IS
        SELECT id_angajat, id_hotel, nume, salariu
        FROM angajati
        WHERE id_hotel = v_id_hotel AND EXTRACT(YEAR FROM data_angajare)
>= 2020;
```

```
v vechi salariu angajati.salariu%TYPE;
   v nou salariu angajati.salariu%TYPE;
   v are angajati BOOLEAN := FALSE;
   FOR j IN c hotel LOOP
       DBMS OUTPUT.PUT LINE ('-----
       DBMS OUTPUT.PUT LINE('');
       v are angajati := FALSE;
       FOR a IN c angajati(j.id hotel) LOOP
           DBMS OUTPUT.PUT LINE('Angajat: ' || a.nume);
           v are angajati := TRUE;
           UPDATE angajati
           WHERE id angajat = a.id angajat;
           DBMS OUTPUT.PUT LINE('Vechiul salariu: ' || v vechi salariu);
           DBMS OUTPUT.PUT LINE('Noul salariu: ' || v nou salariu);
       END LOOP;
       IF NOT v are angajati THEN
           DBMS OUTPUT.PUT LINE('Hotelul nu are angajati dupa 2020.');
       END IF;
   END LOOP;
END exercitiul 7;
```

```
exercitiul_7('Transilvania');
END;
/
-- Muntenia
rollback;
```

```
sheet Query Builder
                                                                                      Hotel: Hotel Elegance
GCREATE OR REPLACE PROCEDURE exercitiul 7(v nume regiune IN orase.regiune%TYPE) IS
     -- cursor pentru id-ul si numele hotelurilor
                                                                                       Angajat: Ioana Tudor
     CURSOR c hotel IS
                                                                                       Vechiul salariu: 4000
         SELECT h.id hotel, h.nume
                                                                                       Noul salariu: 4600
         FROM hoteluri h JOIN orase o ON h.id_oras = o.id_oras
        WHERE o.regiune = v nume regiune;
                                                                                       Angajat: Cristian Dumitrescu
                                                                                       Vechiul salariu: 4000
     -- cursor pentru angajati
                                                                                       Noul salariu: 4600
     CURSOR c angajati(v id hotel hoteluri.id hotel%TYPE) IS
        SELECT id_angajat, id_hotel, nume, salariu
                                                                                      Hotel: Hotel Panorama
         WHERE id_hotel = v_id_hotel AND EXTRACT(YEAR FROM data_angajare) >= 2020;
                                                                                       Hotelul nu are angajati dupa 2020
     -- variabile pentru salariul vechi si nou
     v vechi salariu angajati.salariu%TYPE;
                                                                                       Hotel: Hotel Miralux
     v_nou_salariu angajati.salariu%TYPE;
                                                                                      Angajat: Radu Gheorghe
     -- variabila pentru a verifica daca hotelul are angajati dupa 2020
                                                                                      Vechiul salariu: 3500
     v are angajati BOOLEAN := FALSE;
                                                                                       Noul salariu: 4025
 BEGIN
     FOR j IN c hotel LOOP
                                                                                      Hotel: Hotel Olimpia
         DBMS OUTPUT.PUT LINE('-----
         DBMS OUTPUT.PUT LINE('Hotel: ' || j.nume);
         DBMS_OUTPUT.PUT_LINE('');
                                                                                       Hotelul nu are angajati dupa 2020
         v are angajati := FALSE;
         FOR a IN c angaiati(i.id hotel) LOOP
```

8. Subprogram stocat independent tip functie cu 3 tabele intr-o comanda

Calculati pentru numele unui hotel dat de la tastatura numarul de rezervari efectuate in luna noiembrie 2023.

```
CREATE OR REPLACE FUNCTION exercitiul_8(v_nume_hotel hoteluri.nume%TYPE)

RETURN NUMBER IS

nr_rezervari NUMBER;

nr_hoteluri NUMBER;

BEGIN

-- verificam cate hoteluri sunt in baza de date cu numele dat de noi

SELECT COUNT(*)

INTO nr_hoteluri

FROM hoteluri
```

```
WHERE nume = v nume hotel;
exista');
    ELSIF nr hoteluri > 1 THEN
numele respectiv.');
    END IF:
   SELECT COUNT(*)
    JOIN hoteluri h ON c.id hotel = h.id hotel
   WHERE h.nume = v nume hotel AND EXTRACT(MONTH FROM r.data check in) =
11
2023;
   RETURN nr rezervari;
END exercitiul 8;
DECLARE
       exceptie1 EXCEPTION;
       exceptie2 EXCEPTION;
        PRAGMA EXCEPTION INIT (exceptie1, -20000);
        PRAGMA EXCEPTION INIT(exceptie2, -20001);
        DBMS OUTPUT.PUT LINE('Hotelul "test" are nr de rezervari =');
        DBMS OUTPUT.PUT LINE('');
        DBMS OUTPUT.PUT LINE(exercitiul 8('test'));
   EXCEPTION
        WHEN exceptie1 THEN
            DBMS OUTPUT.PUT LINE('Mesaj exceptie: '||SQLERRM);
        WHEN exceptie2 THEN
            DBMS OUTPUT.PUT LINE('Mesaj exceptie: '||SQLERRM);
END;
```

```
exceptie1 EXCEPTION;
       exceptie2 EXCEPTION;
       PRAGMA EXCEPTION INIT(exceptie1, -20000);
        PRAGMA EXCEPTION INIT(exceptie2, -20001);
= ' ) ;
       DBMS OUTPUT.PUT LINE('');
       DBMS OUTPUT.PUT LINE(exercitiul 8('Hotel Ambiance'));
   EXCEPTION
       WHEN exceptie1 THEN
           DBMS OUTPUT.PUT LINE('Mesaj exceptie: '||SQLERRM);
       WHEN exceptie2 THEN
            DBMS OUTPUT.PUT LINE('Mesaj exceptie: '||SQLERRM);
END;
DECLARE
       exceptie1 EXCEPTION;
       exceptie2 EXCEPTION;
        PRAGMA EXCEPTION INIT(exceptie1, -20000);
        PRAGMA EXCEPTION INIT(exceptie2, -20001);
=');
       DBMS OUTPUT.PUT LINE('');
        DBMS OUTPUT.PUT LINE(exercitiul 8('Hotel Dunarea'));
   EXCEPTION
       WHEN exceptie1 THEN
            DBMS OUTPUT.PUT LINE('Mesaj exceptie: '||SQLERRM);
       WHEN exceptie2 THEN
            DBMS OUTPUT.PUT LINE('Mesaj exceptie: '||SQLERRM);
insert into hoteluri(id hotel, nume) values(11, 'Hotel Dunarea');
```

```
11 CREATE OR REPLACE FUNCTION exercitiul 8(v nume hotel hoteluri.nume%TYPE)
                                                                                          Mesaj exceptie: ORA-20000: Hotelul cu numele respectiv nu exista
12 RETURN NUMBER IS
       nr_rezervari NUMBER;
                                                                                          Hotelul "Hotel Ambiance" are nr de rezervari =
        nr_hoteluri NUMBER;
15 BEGIN
          verificam cate hoteluri sunt in baza de date cu numele dat de noi
       SELECT COUNT(*)
                                                                                          Hotelul "Hotel Dunarea" are nr de rezervari =
        FROM hoteluri
20
                                                                                          Mesaj exceptie: ORA-20001: Exista mai multe hoteluri cu numele respectiv.
        WHERE nume = v nume hotel;
21
22 = 23
24
25
26
27
28
29 = 29
       IF nr hoteluri = 0 THEN
            RAISE_APPLICATION_ERROR(-20000, 'Hotelul cu numele respectiv nu exista');
        ELSIF nr hoteluri > 1 THEN
            RAISE_APPLICATION_ERROR(-20001, 'Exista mai multe hoteluri cu numele resp
        END TE:
           calculam numarul de rezervari din noiembrie 2023
        SELECT COUNT(*)
30
31
        FROM rezervari r JOIN camere c ON c.id camera = r.id camera
         JOIN hoteluri h ON c.id_hotel = h.id_hotel
        WHERE h.nume = v_nume_hotel AND EXTRACT(MONTH FROM r.data_check_in) = 11
```

9. Subprogram stocat independent tip procedura cu 5 tabele intr-o comanda

Scrieti un program stocat independent care, pentru numele unui hotel dat de la tastatura, sa se afiseze informatii despre camera (facilitati), numele clientului, data check-in si check-out.

```
WHERE h.nume = hotel nume
r.data check out
       DBMS OUTPUT.PUT LINE('-----
       DBMS OUTPUT.PUT LINE('');
       DBMS OUTPUT.PUT LINE('Hotel: ' || rec camera.nume hotel);
       DBMS OUTPUT.PUT LINE('');
       DBMS OUTPUT.PUT LINE('Nr. camera: ' || rec camera.nr camera);
       DBMS OUTPUT.PUT LINE('Facilitati: ' || rec camera.facilitati);
       DBMS OUTPUT.PUT LINE('Client: ' || rec camera.client);
       DBMS OUTPUT.PUT LINE('Check-in: ' || rec camera.check in);
  END LOOP;
EXCEPTION
găsit.');
   WHEN TOO MANY ROWS THEN
        DBMS OUTPUT.PUT LINE('Exista mai multe hoteluri cu numele dat.');
  WHEN OTHERS THEN
     DBMS OUTPUT.PUT LINE('A apărut o eroare: ' || SQLERRM);
END;
BEGIN
  exercitul 9('Hotel Splendid');
END;
BEGIN
  exercitul 9('Hotel Dunarea');
END;
```

```
9 CREATE OR REPLACE PROCEDURE exercitul_9 (hotel_nume IN VARCHAR2) IS
     v hotel id hoteluri.id hotel%TYPE;
                                                                                            Hotel: Hotel Splendid
      -- cautam id-ul hotelului in functie de numele dat de la tastatura
                                                                                            Nr. camera: 100
      SELECT id_hotel INTO v_hotel_id
                                                                                            Facilitati: WI-FI, aer conditionat, fier de ca
     FROM hoteluri
                                                                                            Client: Alexandru Popa
                                                                                            Check-in: 11-JAN-24
     WHERE nume = hotel nume;
                                                                                            Check-out: 14-JAN-24
      -- obtinem informatiile despre rezervare
     FOR rec camera IN (SELECT h.nume AS nume hotel, c.nr camera,
             (CASE WHEN COUNT(distinct fc.tip_facilitate) > 0 THEN LISTAGG(distinct
                                                                                            Hotel: Hotel Splendid
                                                       WITHIN GROUP (ORDER BY fc.tip f.
               ELSE 'Nu există facilități' END) AS facilitati,
                                                                                            Nr. camera: 101
            cl.nume as client,
                                                                                            Facilitati: Nu există facilităti
                                                                                            Client: Ion Radu
            r.data check in as check in,
4
            r.data_check_out as check_out
                                                                                            Check-in: 25-DEC-23
5
      FROM camere c
                                                                                            Check-out: 27-DEC-23
          JOIN hoteluri h ON c.id hotel = h.id hotel
           LEFT JOIN facilitati_camera fc ON c.id_camera = fc.id_camera
          LEFT JOIN rezervari r on c.id camera = r.id camera
                                                                                            Hotel: Hotel Splendid
          LEFT JOIN clienti cl on cl.id_client = r.id_client
.0
      WHERE h.nume = hotel nume
                                                                                            Nr. camera: 101
                                                                                            Facilitati: Nu există facilități
      AND r.id camera IS NOT NULL
      GROUP BY h.nume, c.nr camera, cl.nume, r.data check in, r.data check out
                                                                                            Client: Andreea Mihai
                                                                                            Check-in: 21-FEB-24
4
                                                                                            Check-out: 26-FEB-24
          DBMS OUTPUT.PUT LINE('---
          DBMS_OUTPUT.PUT_LINE('');
DBMS_OUTPUT.PUT_LINE('Hotel: ' || rec_camera.nume_hotel);
                                                                                            Hotel: Hotel Splendid
Script Output X Duery Result X
🕢 🖥 🚇 📓 | Task completed in 0.049 seconds
                                                                                            Facilitati: Nu există facilităti
Worksheet Query Builder
                                                                                                 Exista mai multe hoteluri cu numele dat.
             DBMS_OUTPUT.PUT_LINE('Check-in: ' || rec_camera.check_in);
DBMS_OUTPUT.PUT_LINE('Check-out: ' || rec_camera.check_out);
 52
 53
 55 EXCEPTION
 56
       WHEN NO_DATA_FOUND THEN
           DBMS OUTPUT.PUT LINE('Hotelul "' || hotel nume || '" nu a fost găsit.');
 58
         WHEN TOO MANY ROWS THEN
            DBMS OUTPUT.PUT LINE('Exista mai multe hoteluri cu numele dat.');
 59
 60
        WHEN OTHERS THEN
           DBMS OUTPUT.PUT LINE ('A apărut o eroare: ' || SQLERRM);
 61
 62 END;
 63 /
 64 BEGIN
 65
       exercitul 9('Hotel Splendid');
 66 END;
 67 /
       exercitul_9('Hotel Dunarea');
 69
 70 END;
 72 select * from hoteluri;
Script Output × Duery Result ×
📌 🥓 🖥 🚇 📓 | Task completed in 0.035 seconds
```

10. Trigger LMD la nivel de comanda

Creati un trigger care sa se declanseze atunci cand inseram, stergem sau modificam o rezervare in afara programului (08:00 - 21:00).

```
CREATE OR REPLACE TRIGGER exercitiul_10
BEFORE INSERT OR UPDATE OR DELETE ON rezervari
BEGIN
```

```
IF INSERTING THEN
        ELSIF DELETING THEN
            RAISE APPLICATION ERROR (-20010, 'In afara programului de
lucru.
            RAISE APPLICATION ERROR (-20010, 'In afara programului de
lucru.
                Actualizati datele din tabel intre orele 08:00-21:00.');
       END IF;
   END IF;
END;
INSERT INTO rezervari (id rezervare, id client, id camera, data check in,
data check out, nr persoane, pret total)
VALUES(seq rezervari.nextval, 1, 1, TO DATE('2023-12-01', 'YYYY-MM-DD'),
DELETE FROM rezervari
WHERE id rezervare = 1;
UPDATE rezervari
SET pret total = 999
WHERE id rezervare = 1;
```

INSERT

```
worksheet Query Builder
                    Inserati date in tabel intre orele 08:00-21:00.');
 16
 17
            ELSIF DELETING THEN
                RAISE APPLICATION ERROR (-20010, 'In afara programului de lucru.
 18
 19
                    Stergeti date din tabel intre orele 08:00-21:00.');
 20
            RLSE
 21
                RAISE APPLICATION ERROR (-20010, 'In afara programului de lucru.
 22
                    Actualizati datele din tabel intre orele 08:00-21:00.');
 23
            END IF:
 24
        END IF;
 25
    END;
 26
 27
 28 INSERT INTO rezervari (id rezervare, id client, id camera, data check in, data check out, nr persoa
 29
    VALUES(seq_rezervari.nextval, 1, 1, To_DATE('2023-12-01', 'YYYY-MM-DD'),
            TO DATE('2023-12-02', 'YYYY-MM-DD'), 1, 1000);
 30
Script Output × Duery Result ×
📌 🥢 🖥 🚇 📃 | Task completed in 0.056 seconds
Trigger EXERCITIUL 10 compiled
Error starting at line : 28 in command -
INSERT INTO rezervari (id rezervare, id client, id camera, data check in, data check out, nr persoane, p
VALUES(seq_rezervari.nextval, 1, 1, TO_DATE('2023-12-01', 'YYYY-MM-DD'),
      TO_DATE('2023-12-02', 'YYYY-MM-DD'), 1, 1000)
Error report -
ORA-20010: In afara programului de lucru.
               Inserati date in tabel intre orele 08:00-21:00.
ORA-06512: at "ANGIFLUTUR.EXERCITIUL 10", line 6
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 10'
```

DELETE

```
Worksneet | Query Builder
 22
                     Actualizati datele din tabel intre orele 08:00-21:00.');
 23
             END IF:
 24
       END IF;
 25 END;
 26
 27
    INSERT INTO rezervari (id rezervare, id client, id_camera, data_check_in
 28
 29 VALUES (seq rezervari.nextval, 1, 1, TO DATE ('2023-12-01', 'YYYY-MM-DD'),
            TO DATE('2023-12-02', 'YYYY-MM-DD'), 1, 1000);
 30
 31
 32 DELETE FROM rezervari
 33 WHERE id rezervare = 1;
 34
 35 UPDATE rezervari
 36 SET pret total = 999
Script Output × Descript Output ×
📌 🧽 🖥 🚇 財 Task completed in 0.038 seconds
                Inserati date in tabel intre orele 08:00-21:00.
ORA-06512: at "ANGIFLUTUR.EXERCITIUL 10", line 6
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 10'
Error starting at line : 32 in command -
DELETE FROM rezervari
WHERE id rezervare = 1
Error report -
ORA-20010: In afara programului de lucru.
                Stergeti date din tabel intre orele 08:00-21:00.
ORA-06512: at "ANGIFLUTUR.EXERCITIUL 10", line 9
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 10'
```

UPDATE

```
Worksheet
          Query Builder
  24
          END IF;
  25
     END;
  26 /
  27
  28
     INSERT INTO rezervari (id rezervare, id client, id camera, data check
      VALUES (seq rezervari.nextval, 1, 1, TO DATE ('2023-12-01', 'YYYY-MM-DD
  30
              TO DATE('2023-12-02', 'YYYY-MM-DD'), 1, 1000);
  31
  32
     DELETE FROM rezervari
  33 WHERE id rezervare = 1;
  34
  35 UPDATE rezervari
  36 SET pret total = 999
  37 WHERE id rezervare = 1;
  38
 Script Output X DQuery Result X
  📌 🥟 🔡 🖺 🔋 | Task completed in 0.037 seconds
 ORA-06512: at "ANGIFLUTUR.EXERCITIUL 10", line 9
 ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 10'
 Error starting at line : 35 in command -
 UPDATE rezervari
 SET pret total = 999
 WHERE id rezervare = 1
 Error report -
 ORA-20010: In afara programului de lucru.
                  Actualizati datele din tabel intre orele 08:00-21:00.
ORA-06512: at "ANGIFLUTUR.EXERCITIUL 10", line 12
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 10'
```

11. Trigger LMD la nivel de linie

Creati un trigger care sa se declanseze atunci cand incercam sa modificam data_check_in din tabelul rezervari cu o data din trecut.

```
--Definiți un trigger de tip LMD la nivel de linie.
--Declanșați trigger-ul.
-- creati un trigger care sa se declanseze atunci cand
-- incercam sa modificam data check-in
```

```
CREATE OR REPLACE TRIGGER exercitiul_11
BEFORE UPDATE OF data_check_in ON rezervari
FOR EACH ROW
BEGIN
    If(:NEW.data_check_in < SYSDATE)
        THEN RAISE_APPLICATION_ERROR(-20000, 'Data check-out trebuie sa
fie mai mare
        decat data check-in.');
    END IF;
END;
/
alter trigger exercitiul_12 disable;

update rezervari
set data_check_in = to_date('26/08/2023', 'DD/MM/YYYY')
where id_rezervare = 1;</pre>
```

```
Worksheet Query Builder
       incercam sa modificam data check-in
    -- cu o data din trecut.
  8 CREATE OR REPLACE TRIGGER exercitiul 11
  9 BEFORE UPDATE OF data check in ON rezervari
 10 FOR EACH ROW
 11 BEGIN
         IF(:NEW.data check in < SYSDATE)</pre>
             THEN RAISE APPLICATION ERROR (-20000, 'Data check-out trebui
 13
 14
             decat data check-in.');
 15
        END IF;
 16 END;
 17 /
 18
    alter trigger exercitiul 10 disable;
 19
 20 update rezervari
 21 set data check in = to_date('26/08/2023', 'DD/MM/YYYY')
 22 where id rezervare = 1;
Query Result × Script Output ×
📌 🧼 🖥 🚇 📕 | Task completed in 0.053 seconds
Error starting at line : 20 in command -
update rezervari
set data check in = to date('26/08/2023', 'DD/MM/YYYY')
where id rezervare = 1
Error report -
ORA-20000: Data check-out trebuie sa fie mai mare
        decat data check-in.
ORA-06512: at "ANGIFLUTUR.EXERCITIUL 11", line 3
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 11'
```

12. Trigger LDD

Creati un trigger care nu permite stergerea, crearea sau alterarea tabelelor din schema in afara intervalului de lucru (08:00 - 21:00).

```
CREATE OR REPLACE TRIGGER exercitiul_12
AFTER CREATE OR DROP OR ALTER ON SCHEMA
BEGIN
IF TO_CHAR(SYSDATE, 'hh24') BETWEEN 0 AND 8 OR
```

```
TO_CHAR(SYSDATE, 'hh24') BETWEEN 21 AND 24

THEN

RAISE_APPLICATION_ERROR(-20010, 'In afara programului de lucru.

Incercati sa faceti modificari intre orele 08:00-21:00.');

END IF;

END;

/

alter table angajati drop column salariu;

/
drop table angajati;

/ create table test(id_test NUMBER);
```

ALTER

```
8 CREATE OR REPLACE TRIGGER exercitiul 12
  9 AFTER CREATE OR DROP OR ALTER ON SCHEMA
 10
 11 BEGIN
         IF TO CHAR(SYSDATE, 'hh24') BETWEEN 0 AND 8 OR
             TO CHAR (SYSDATE, 'hh24') BETWEEN 21 AND 24
 13
 14
        THEN
             RAISE APPLICATION ERROR (-20010, 'In afara programului de lucr
 15 l
                 Incercati sa faceti modificari intre orele 08:00-21:00.')
 16
 17
        END IF;
 18 END;
 19 /
 20 rollback;
 22 alter table angajati drop column salariu;
 23 /
 24 drop table angajati;
 25 /
Script Output X DQuery Result X
📌 🤌 🖥 🚇 星 | Task completed in 0.051 seconds
alter table angajati drop column salariu
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 12'
ORA-00604: error occurred at recursive SQL level 1
ORA-20010: In afara programului de lucru.
            Incercati sa faceti modificari intre orele 08:00-21:00.
ORA-06512: at line 5
04088. 00000 - "error during execution of trigger '%s.%s'"
*Cause: A runtime error occurred during execution of a trigger.
*Action: Check the triggers which were involved in the operation.
DROP
```

```
8 CREATE OR REPLACE TRIGGER exercitiul 12
  9 AFTER CREATE OR DROP OR ALTER ON SCHEMA
 10
 11 BEGIN
         IF TO CHAR(SYSDATE, 'hh24') BETWEEN 0 AND 8 OR
            TO CHAR (SYSDATE, 'hh24') BETWEEN 21 AND 24
 13
 14
         THEN
 15
             RAISE APPLICATION ERROR (-20010, 'In afara programului de lucru.
                 Incercati sa faceti modificari intre orele 08:00-21:00.');
 16
 17
         END IF;
 18 END;
 19 /
 20 rollback;
 21
 22 alter table angajati drop column salariu;
 23 /
 24 drop table angajati;
 25 /
 26 create table test(id test NUMBER);
Script Output × Declary Result ×
📌 🧼 🖥 🚇 📘 | Task completed in 0.061 seconds
drop table angajati
Error report -
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 12'
ORA-00604: error occurred at recursive SQL level 1
ORA-20010: In afara programului de lucru.
            Incercati sa faceti modificari intre orele 08:00-21:00.
ORA-06512: at line 5
04088. 00000 - "error during execution of trigger '%s.%s'"
*Cause: A runtime error occurred during execution of a trigger.
*Action: Check the triggers which were involved in the operation.
```

CREATE

```
8 □ CREATE OR REPLACE TRIGGER exercitiul 12
 9 AFTER CREATE OR DROP OR ALTER ON SCHEMA
 10
 11 BEGIN
 12 🗉
        IF TO CHAR (SYSDATE, 'hh24') BETWEEN 0 AND 8 OR
            TO CHAR (SYSDATE, 'hh24') BETWEEN 21 AND 24
 13
 14
        THEN
 15
            RAISE APPLICATION ERROR (-20010, 'In afara programului de lucru.
                 Incercati sa faceti modificari intre orele 08:00-21:00.');
 16
 17
        END IF;
18 END;
19
20 rollback;
22 alter table angajati drop column salariu;
23 /
24 drop table angajati;
25 /
26 create table test(id test NUMBER);
Script Output × Descript Output ×
📌 🥟 🖥 🖺 📗 | Task completed in 0.035 seconds
create table test(id test NUMBER)
Error report -
ORA-04088: error during execution of trigger 'ANGIFLUTUR.EXERCITIUL 12'
ORA-00604: error occurred at recursive SQL level 1
ORA-20010: In afara programului de lucru.
            Incercati sa faceti modificari intre orele 08:00-21:00.
ORA-06512: at line 5
04088. 00000 - "error during execution of trigger '%s.%s'"
         A runtime error occurred during execution of a trigger.
*Action: Check the triggers which were involved in the operation.
```