Proiect SQL – baze de date

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Cuprins

1. Descrierea proiectului "Baza de Date - PROIECT"	2
2. Crearea diagramei Entitate-Relatie	2
3. Crearea bazei de date in SGBDR MySQL	5
4. Crearea tabelelor pentru fiecare entitate	5
5. Inserarea informatiilor in tabele	8
6. Crearea scripturilor - interogari asupra bazei de date	13

1. Descrierea proiectului Baza de Date - PROIECT

In scopul gestionarii activitatii, un dezvoltator imobiliar privat doreste sa realizeze o baza de date care sa poata fi utilizata in cadrul unei aplicatii informatice mai extinse.

Baza de date proiectata va cuprinde evidenta proprietatilor imobiliare din cadrul unui proiect rezidential privat— oferta completa de case si apartamente din ansamblul gestionat, date despre cumparatorii care achizitioneaza proprietatile si date despre vanzarile propriu-zise ale imobilelor.

Astfel, entitatile de business care necesita stocarea informatiilor despre acestea sunt: proprietatile si tipul acestora, clientii – date generale si particulare si vanzarile.

2. Diagrama Entitate-Relatie a Bazei de date

Tabela **proprietati** contine denumirea, numarul de camere, suprafata utila, suprafata construita, suprafata terenului in metri patrati si pretul in euro. <u>Cheia primara</u> este **id_prop** si este un identificator unic pentru fiecare imobil in parte.

Tabela **tip_proprietate**, avand ca si <u>cheie primara</u> **id_tip**, denumeste tipurile de proprietati propuse spre vanzare(TIP A, B, C, 1, 2 etc), fiind detaliate in tabela proprietati.

Astfel, prima cheie straina **fk1** a fost stabilita ca fiind **id_prop** din tabela proprietati si face referire la primary key-ul tabelei tip_proprietate, anume id_tip.

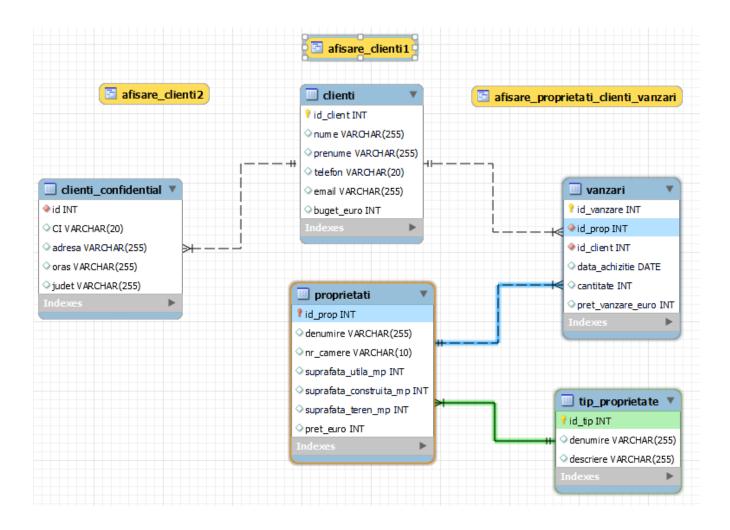
Tabela **clienti** contine date despre cumparatori precum **id_client**, care este si <u>cheia primara</u> a acestuia, nume, prenume, telefon, email si bugetul de care dispune fiecare client pentru achizitie.

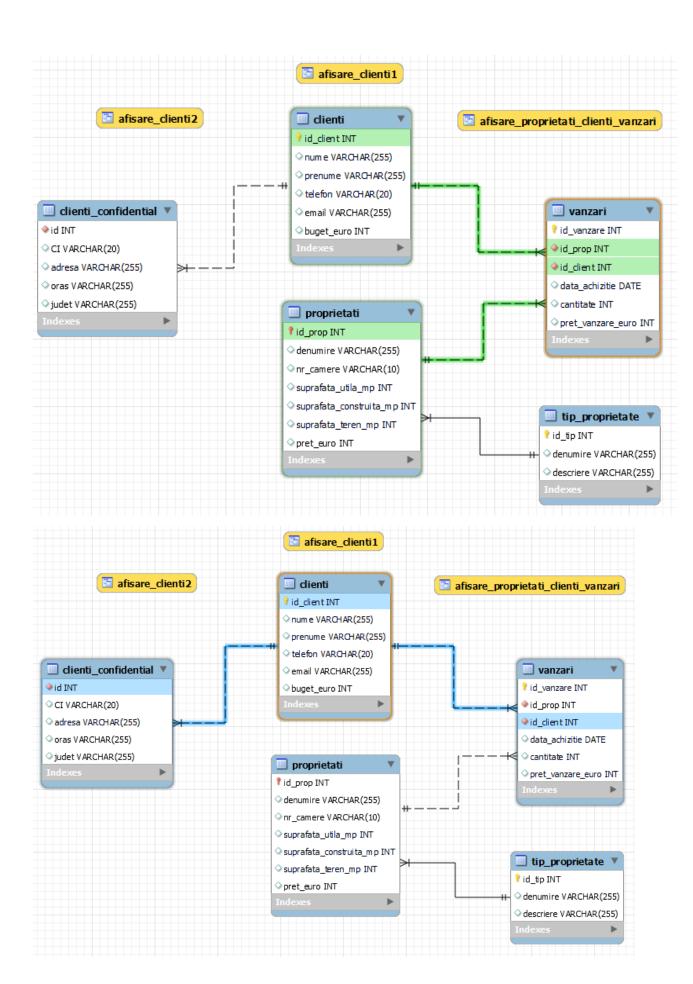
Tabela **clienti_confidential** contine date particulare despre fiecare client in parte, cum ar fi datele din cartea de identitate si adresa. Cheia unica adaugata campului **id**(unic pentru fiecare client) reflecta faptul ca fiecare client din tabela clienti va avea o singura inregistrare in tabela clienti confidential.

Legatura dintre tabelele clienti si clienti_confidential s-a realizat prin foreign key-ul **fk2 id** care face referire la primary key-ul tabelei clienti id client.

Tabela **vanzari** contine id-ul proprietatilor, id-ul clientilor, data achizitiei, pretul de vanzare precum si identificatorul fiecarei vanzari notat cu **id_vanzare**, care este si <u>primary-key-ul</u> acesteia.

Tabela vanzari are doua foreign key-uri: **fk3 id_prop** care o leaga de tabela **proprietati** si **fk4 id_client** care face legatura cu tabela **clienti.**





3. Crearea bazei de date in SGBDR MySQL

CREATE DATABASE PROIECT:

- Utilizarea bazei de date PROIECT

USE PROIECT;



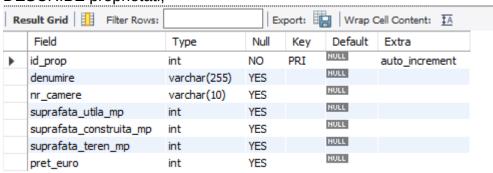
4. Crearea tabelelor pentru fiecare entitate

- CREAREA TABELEI proprietati

```
CREATE TABLE proprietati(
id_prop INT PRIMARY KEY AUTO_INCREMENT,
denumire VARCHAR(255),
nr_camere VARCHAR (10),
suprafata_utila_mp INT,
suprafata_construita_mp INT,
suprafata_teren_mp INT DEFAULT NULL,
pret_euro INT
);
```

- DESCRIERE TABELA proprietati

DESCRIBE proprietati;

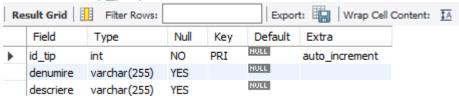


CREAREA TABELEI tip_proprietate

```
CREATE TABLE tip_proprietate(
id_tip INT PRIMARY KEY AUTO_INCREMENT,
denumire VARCHAR(255),
descriere VARCHAR(255)
);
```

DESCRIERE TABELA tip_proprietate

DESCRIBE tip_proprietate;



- CREAREA RELATIILOR INTRE TABELE

ALTER TABLE proprietati ADD FOREIGN KEY fk1(id_prop) REFERENCES tip_proprietate(id_tip)
ON DELETE CASCADE ON UPDATE CASCADE;

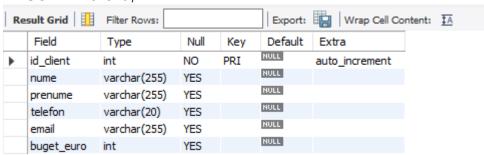


- CREAREA TABELEI clienti

CREATE TABLE clienti(
id_client INT PRIMARY KEY AUTO_INCREMENT,
nume VARCHAR(255),
prenume VARCHAR(255),
telefon VARCHAR(20),
email VARCHAR(255),
buget_euro INT
);

- DESCRIERE TABELA clienti

DESCRIBE clienti;



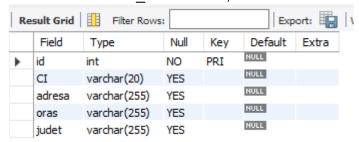
- CREAREA TABELEI clienti_confidential

CREATE TABLE clienti_confidential(id INT INT NOT NULL UNIQUE CI VARCHAR(20), adresa VARCHAR(255),

```
oras VARCHAR(255),
judet VARCHAR(255)
);
```

- DESCRIERE TABELA clienti confidential

DESCRIBE clienti_confidential;



- CREAREA RELATIILOR INTRE TABELE

ALTER TABLE clienti_confidential ADD FOREIGN KEY fk2(id) REFERENCES clienti(id_client)

ON DELETE CASCADE ON UPDATE CASCADE;

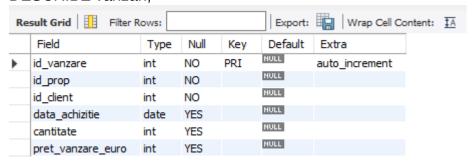
O	utput 🚟			
ā	Action	n Output	•	
	#	Time	Action	Message
0	20	02:29:26	DESCRIBE clienti	6 row(s) returned
0	21	02:29:45	${\sf CREATE\ TABLE\ clienti_confidential(id\ INT\ NOT\ NULL\ UNIQUE,\ CI\ VARCHAR(20),\ adre}$	0 row(s) affected
0	22	02:29:50	DESCRIBE clienti_confidential	5 row(s) returned
0	23	02:31:10	$ALTER\ TABLE\ clienti_confidential\ ADD\ FOREIGN\ KEY\ fk\ 2(id)\ REFERENCES\ clienti(id_cl$	0 row(s) affected Records: 0 Duplicates: 0

- CREAREA TABELEI vanzari

CREATE TABLE vanzari(
id_vanzare INT PRIMARY KEY AUTO_INCREMENT,
id_prop INT NOT NULL,
id_client INT NOT NULL,
data_achizitie DATE,
cantitate INT,
pret_vanzare_euro INT
);

- DESCRIERE TABELA vanzari

DESCRIBE vanzari;



- CREAREA RELATIILOR INTRE TABELE

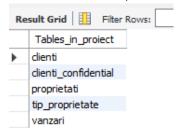
ALTER TABLE vanzari ADD FOREIGN KEY fk3(id_prop)
REFERENCES proprietati(id_prop)
ON DELETE CASCADE ON UPDATE CASCADE;

ALTER TABLE vanzari ADD FOREIGN KEY fk4(id_client)
REFERENCES clienti(id_client)
ON DELETE CASCADE ON UPDATE CASCADE:



- AFISAREA TABELELOR

SHOW TABLES;



5. Inserarea informatiilor in tabele

- POPULARE TABELA tip_proprietate

INSERT INTO tip_proprietate(denumire, descriere) VALUES

('TIP A', 'casa 3 camere P+1'),

('TIP B', 'casa 3 camere P+1'),

('TIP C', 'casa 4 camere S+P+1'),

('TIP C1', 'casa 4 camere P+1'),

('TIP D', 'casa 4 camere S+P+1'),

('TIP D1', 'casa 4 camere P+1'),

('TIP E', 'casa 4 camere P'),

('TIP 1', 'apartament 4 camere 3 balcoane'),

('TIP 2', 'apartament 3 camere 2 balcoane'),

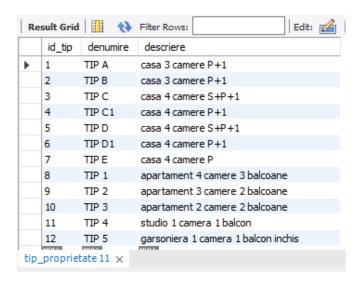
('TIP 3', 'apartament 2 camere 2 balcoane'),

('TIP 4', 'studio 1 camera 1 balcon'),

('TIP 5', 'garsoniera 1 camera 1 balcon inchis');

AFISAREA INFORMATIILOR DIN TABELA tip_proprietate

SELECT * FROM tip proprietate;



- POPULARE TABELA proprietati

```
INSERT INTO proprietati VALUES
```

(NULL, 'casa1', 3, 105, 120, 180, 128000),

(NULL, 'casa2', 3, 95, 115, 175, 123000),

(NULL, 'casa3', 4, 165, 180, 220, 143000),

(NULL, 'casa4', 4, 126, 146, 220, 136000),

(NULL, 'casa5', 4, 179, 196, 235, 148000),

(NULL, 'casa6', 4, 134, 155, 235, 140000),

(NOLL, Casao, 4, 134, 135, 235, 140000)

(NULL, 'casa7', 4, 110, 130, 320, 139000);

INSERT INTO proprietati(id_prop, denumire, nr_camere, suprafata_utila_mp,

suprafata_construita_mp, pret_euro) VALUES

(NULL, 'apartament1', 4, 95, 132, 142500),

(NULL, 'apartament2', 3, 73, 101, 109500),

(NULL, 'apartament3', 2, 52, 70, 78000),

(NULL, 'studio', 1, 41, 53, 61500),

(NULL, 'garsoniera', 1, 33, 44, 49500);

- AFISAREA INFORMATIILOR DIN TABELA proprietati

SELECT * FROM proprietati;

Res	sult Grid	🔢 🙌 Filter	Rows:	Edit:	🚣 🖶 Export/Impor	t: 🙀 🧓 Wrap Cel	Content: ‡A
	id_prop	denumire	nr_camere	suprafata_utila_mp	suprafata_construita_mp	suprafata_teren_mp	pret_euro
•	1	casa1	3	105	120	180	128000
	2	casa2	3	95	115	175	123000
	3	casa3	4	165	180	220	143000
	4	casa4	4	126	146	220	136000
	5	casa5	4	179	196	235	148000
	6	casa6	4	134	155	235	140000
	7	casa7	4	110	130	320	139000
	8	apartament1	4	95	132	NULL	142500
	9	apartament2	3	73	101	NULL	109500
	10	apartament3	2	52	70	NULL	78000
	11	studio	1	41	53	NULL	61500
	12	garsoniera	1	33	44	NULL	49500

- POPULARE TABELA clienti

INSERT INTO clienti VALUES

(NULL, 'PETRESCU', 'MARIA', '0749852749', 'mariapetrescu@yahoo.com', 90000), (NULL, 'STANESCU', 'DANIELA', '0751298731', 'daniela@gmail.com', 125000), (NULL, 'OPREA', 'IOAN', '0755886218', 'ioanoprea@yahoo.com', 145000), (NULL, 'MIHALACHE', 'PETRE', '0748782471', 'petremihalache@gmail.com', 135000).

(NULL, 'NEAGOE', 'VALERIA', '0749815444', 'valerianeagoe@yahoo.com', 70000), (NULL, 'SAMBRIAN', 'NICOLAE', '0733162587', 'nicolae@yahoo.com', 145000), (NULL, 'NEGOESCU', 'VLAD', '0756141995', 'vladnegoescu@gmail.com', 115000), (NULL, 'GRECU', 'SIMONA', '0755861877', 'simonagrecu@yahoo.com', 145000), (NULL, 'NICOLAESCU', 'DANIEL', '0787884512', 'daniel@yahoo.com', 200000), (NULL, 'DRAGOMIR', 'FLORIN', '0747004858', 'florindragomir@gmail.com', 150000), (NULL, 'ALEXE', 'TEODORA', '0786235148', 'teodoraalexe@gmail.com', 150000), (NULL, 'TOMESCU', 'CONSTANTIN', '0745846885', 'constantin@yahoo.com', 155000).

(NULL, 'LUCA', 'NATALIA', '0789554122', 'natalialuca@gmail.com', 135000), (NULL, 'RADUCAN', 'BOGDAN', '0755866335', 'bogdan@yahoo.com', 60000), (NULL, 'DINU', 'IULIANA', '0741864559', 'iulianadinu@gmail.com', 135000);

- AFISAREA INFORMATIILOR DIN TABELA proprietati SELECT * FROM clienti;

Re	sult Grid	🔢 🙌 Filter R	lows:		Edit: 🚄 🖶 🖶 Export/1	Import:
	id_client	nume	prenume	telefon	email	buget_euro
•	1	PETRESCU	MARIA	0749852749	mariapetrescu@yahoo.com	90000
	2	STANESCU	DANIELA	0751298731	daniela@gmail.com	125000
	3	OPREA	IOAN	0755886218	ioanoprea@yahoo.com	145000
	4	MIHALACHE	PETRE	0748782471	petremihalache@gmail.com	135000
	5	NEAGOE	VALERIA	0749815444	valerianeagoe@yahoo.com	70000
	6	SAMBRIAN	NICOLAE	0733162587	nicolae@yahoo.com	145000
	7	NEGOESCU	VLAD	0756141995	vladnegoescu@gmail.com	115000
	8	GRECU	SIMONA	0755861877	simonagrecu@yahoo.com	145000
	9	NICOLAESCU	DANIEL	0787884512	daniel@yahoo.com	200000
	10	DRAGOMIR	FLORIN	0747004858	florindragomir@gmail.com	150000
	11	ALEXE	TEODORA	0786235148	teodoraalexe@gmail.com	150000
	12	TOMESCU	CONSTA	0745846885	constantin@yahoo.com	155000
	13	LUCA	NATALIA	0789554122	natalialuca@gmail.com	135000
	14	RADUCAN	BOGDAN	0755866335	bogdan@yahoo.com	60000
_	15 NULL	DINU NULL	IULIANA NULL	0741864559 NULL	iulianadinu@gmail.com NULL	135000 NULL

- POPULARE TABELA clienti confidential

INSERT INTO clienti confidential VALUES

(1,'RJ 445609', 'Strada Marinarilor nr 18, bloc 10, sc 1, et3, ap 48', 'Bucuresti', 'ILFOV'),

(2,'BT 191348', 'Strada Smaraldului nr 10, bloc 6, et1, ap 5', 'Bragadiru', 'ILFOV'), (3,'IF 674593', 'Strada Stefan cel Mare nr 28', 'Tunari', 'ILFOV'),

- (4,'RX 410972', 'Calea Mosilor nr 227, bloc 39, sc 2, et 4, ap 52', 'Bucuresti', 'ILFOV'),
- (5,'RT 912597', 'Sos. Giurgiului nr 129, bloc 8A, sc2, et6, ap 64', 'Bucuresti', 'ILFOV'),
- (6,'IF 456298', 'Calea Vacaresti nr 328, bloc 8F, sc A, ap 12', 'Bucuresti', 'ILFOV'),
- (7,'RK 215404', 'Strada 23 August nr 85', 'Otopeni', 'ILFOV'),
- (8,'IF 960285', 'Strada Zorilor nr 9', 'Popesti Leordeni', 'ILFOV'),
- (9,'RD 758604', 'Sos. Nordului nr 54', 'Bucuresti', 'ILFOV'),
- (10,'XZ 853021', 'Bd Unirii nr 209, Bloc D4, ap 5', 'Buzau', 'BUZAU'),
- (11, 'RK 076503', 'Strada Vulturilor nr 65', 'Bucuresti', 'ILFOV'),
- (12, 'RX 595382', 'Strada Cuza Voda nr 114', 'Bucuresti', 'ILFOV'),
- (13, 'RR 138945', 'Strada Fetesti nr 2', 'Bucuresti', 'ILFOV'),
- (14, 'DX 764023', 'Strada Laleleor nr 8, Bloc P4, sc 2, ap 18', 'Craiova', 'DOLJ'),
- (15, 'RD 968519', 'Strada Crinul de Gradina nr 22', 'Bucuresti', 'ILFOV');

- AFISAREA INFORMATIILOR DIN TABELA clienti_confidential

SELECT * FROM clienti confidential;

Re	sult Grid	H 📗 🙌	Filter Rows: Edit: 🚄 🖽	Export/Import	
	id	CI	adresa	oras	judet
•	1	RJ 445609	Strada Marinarilor nr 18, bloc 10, sc 1, et3, ap 48	Bucuresti	ILFOV
	2	BT 191348	Strada Smaraldului nr 10, bloc 6, et1, ap 5	Bragadiru	ILFOV
	3	IF 674593	Strada Stefan cel Mare nr 28	Tunari	ILFOV
	4	RX 410972	Calea Mosilor nr 227, bloc 39, sc 2, et 4, ap 52	Bucuresti	ILFOV
	5	RT 912597	Sos. Giurgiului nr 129, bloc 8A, sc2, et6, ap 64	Bucuresti	ILFOV
	6	IF 456298	Calea Vacaresti nr 328, bloc 8F, sc A, ap 12	Bucuresti	ILFOV
	7	RK 215404	Strada 23 August nr 85	Otopeni	ILFOV
	8	IF 960285	Strada Zorilor nr 9	Popesti Leordeni	ILFOV
	9	RD 758604	Sos. Nordului nr 54	Bucuresti	ILFOV
	10	XZ 853021	Bd Unirii nr 209, Bloc D4, ap 5	Buzau	BUZAU
	11	RK 076503	Strada Vulturilor nr 65	Bucuresti	ILFOV
	12	RX 595382	Strada Cuza Voda nr 114	Bucuresti	ILFOV
	13	RR 138945	Strada Fetesti nr 2	Bucuresti	ILFOV
	14	DX 764023	Strada Laleleor nr 8, Bloc P4, sc 2, ap 18	Craiova	DOLJ
	15	RD 968519	Strada Crinul de Gradina nr 22	Bucuresti	ILFOV
~	NULL	NULL	NULL	NULL	NULL

- POPULARE TABELA vanzari

INSERT INTO vanzari VALUES

- (NULL, 1, 4, '2021-05-20', 1, 128000),
- (NULL, 3, 10, '2020-02-18', 1, 143000),
- (NULL, 2, 15, '2021-11-08', 1, 123000),
- (NULL, 4, 6, '2020-10-17', 1, 136000),
- (NULL, 5, 11, '2022-09-24', 1, 140000),
- (NULL, 6, 9, '2021-08-14', 1, 148000),
- (NULL, 7, 8, '2019-10-28', 1, 139000),
- (NULL, 8, 12, '2022-03-19', 1, 142500),
- (NULL, 11, 5, '2022-05-24', 1, 61500),
- (NULL, 12, 14, '2021-06-04', 1, 49500),
- (NULL, 10, 1, '2022-09-28', 1, 78000),

(NULL, 9, 7, '2021-11-25', 1, 109500), (NULL, 1, 13, '2021-08-29', 1, 128000), (NULL, 2, 2, '2020-10-04', 1, 123000), (NULL, 6, 3, '2021-07-19', 1, 140000);

- AFISAREA INFORMATIILOR DIN TABELA vanzari

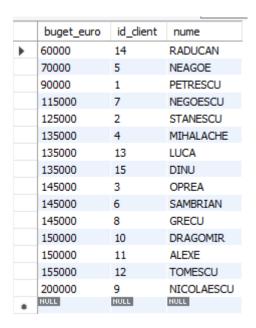
SELECT * FROM vanzari;

Re	sult Grid 🔢	₹ Filte		Edit: 🚣	Export/Imp	
	id_vanzare	id_prop	id_dient	data_achizitie	cantitate	pret_vanzare_euro
•	1	1	4	2021-05-20	1	128000
	2	3	10	2020-02-18	1	143000
	3	2	15	2021-11-08	1	123000
	4	4	6	2020-10-17	1	136000
	5	5	11	2022-09-24	1	140000
	6	6	9	2021-08-14	1	148000
	7	7	8	2019-10-28	1	139000
	8	8	12	2022-03-19	1	142500
	9	11	5	2022-05-24	1	61500
	10	12	14	2021-06-04	1	49500
	11	10	1	2022-09-28	1	78000
	12	9	7	2021-11-25	1	109500
	13	1	13	2021-08-29	1	128000
	14	2	2	2020-10-04	1	123000
	15	6	3	2021-07-19	1	140000
	NULL	NULL	NULL	NULL	NULL	NULL

6. Crearea scripturilor - interogari asupra bazei de date

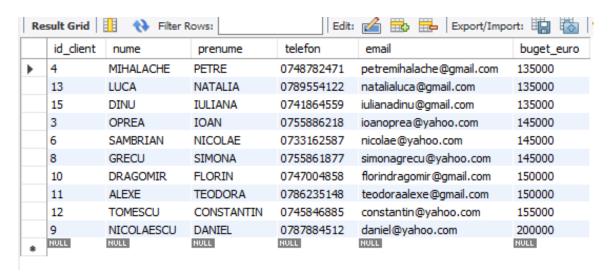
1- Proiectati o interogare ce va afisa id-ul, numele, prenumele si bugetul tuturor clientilor, ordonoati crescator dupa buget

SELECT buget_euro, id_client, nume FROM clienti ORDER BY buget_euro ASC;



2- Proiectati o interogare ce va afisa toti clientii cu bugetul mai mare sau egal cu 135000

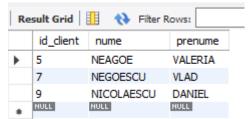
SELECT * FROM clienti WHERE buget_euro >= 135000 ORDER BY buget_euro ASC;



3- Proiectati o interogare ce va fisa toti clientii al caror nume incepe cu litera N

SELECT id_client, nume, prenume FROM clienti WHERE ASCII(nume)=ASCII('N'); **SAU**

SELECT * FROM clienti WHERE nume LIKE 'N%';



4- Sa se afiseze clientul cu cel mai mare buget

SELECT * FROM clienti WHERE buget_euro=(SELECT MAX(buget_euro) FROM clienti);

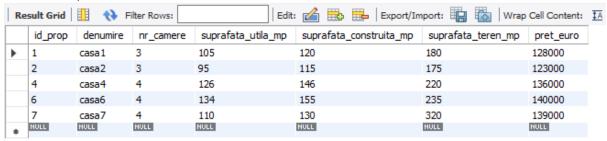
SAU - varianta de script pe baza de subinterogare

SELECT * FROM clienti WHERE buget_euro=(SELECT buget_euro FROM clienti ORDER BY buget euro DESC LIMIT 1);

	id_client	nume	prenume	telefon	email	buget_euro
•	9	NICOLAESCU	DANIEL	0787884512	daniel@yahoo.com	200000
	NULL	NULL	NULL	NULL	NULL	NULL

5- Sa se afiseze proprietatile cu suprafata utila mai mare de 90 mp si pretul maxim de 140000 euro

SELECT * FROM proprietati WHERE suprafata_utila_mp >90 AND pret_euro <=140000;



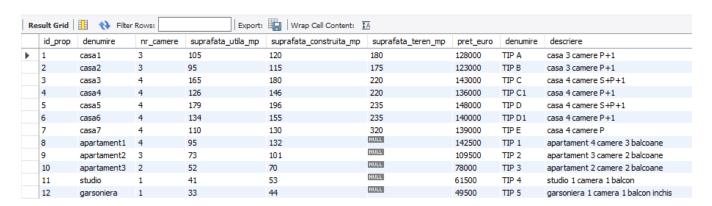
6- Sa se afiseze suprafata utila medie pentru proprietatile cu 3 camere

SELECT FLOOR(AVG(suprafata_utila_mp)) AS suprafata_medie FROM proprietati WHERE nr_camere=3;



7- Sa se afiseze lista tuturor proprietatilor puse spre vanzare, tipul si descrierea fiecareia

SELECT p.*, t.denumire, t.descriere FROM proprietati AS p LEFT JOIN tip_proprietate AS t ON p.id_prop=t.id_tip;



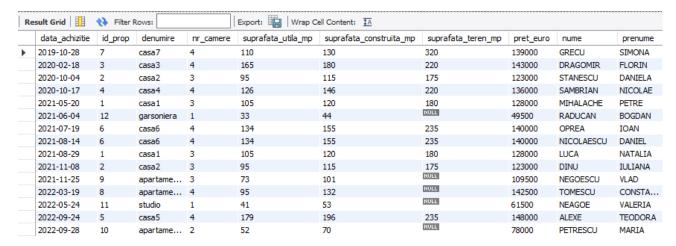
8- Proiectati o interogare ce va afisa tipul proprietatilor ce au 3 camere

SELECT p.denumire, p.nr_camere, t.denumire, t.descriere FROM proprietati AS p RIGHT JOIN tip_proprietate AS t ON p.id_prop=t.id_tip WHERE p.nr_camere=3 GROUP BY t.denumire;



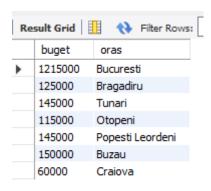
9- Sa se afiseze lista tuturor proprietatilor, impreuna cu numele si prenumele clientilor care le-au achizitionat, ordonate cronologic dupa data achizitiei.

SELECT v.data_achizitie, p.*, c.nume, c.prenume FROM proprietati AS p RIGHT JOIN vanzari AS v ON p.id_prop=v.id_prop LEFT JOIN clienti AS c ON v.id_client=c.id_client ORDER BY v.data_achizitie ASC;



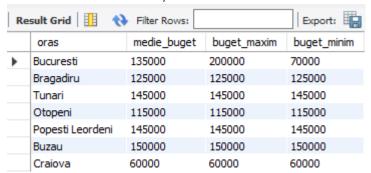
10- Sa se afiseze bugetul clientilor pe fiecare oras

SELECT SUM(c.buget_euro) AS buget, conf.oras FROM clienti AS c LEFT JOIN clienti_confidential AS conf
ON c.id client=conf.id GROUP BY conf.oras;



11- Sa se afiseze cel mai mare buget, cel mai mic buget si media bugetelor clientilor din fiecare oras (grupati pe orase)

SELECT conf.oras, floor(avg(c.buget_euro)) AS medie_buget, MAX(c.buget_euro) AS buget_maxim, MIN(c.buget_euro) AS buget_minim FROM clienti_confidential AS conf LEFT JOIN clienti AS c ON c.id_client=conf.id GROUP BY conf.oras:



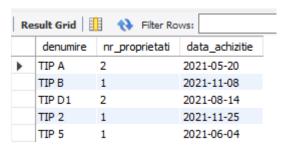
12- Sa se afiseze cate proprietati au fost achizitionate din fiecare tip in 2021

SELECT t.denumire, COUNT(p.id_prop) AS nr_proprietati, v.data_achizitie FROM proprietati AS p

LEFT JOIN vanzari AS v ON p.id_prop=v.id_prop

LEFT JOIN tip_proprietate AS t ON p.id_prop=t.id_tip

WHERE year(v.data_achizitie)=2021 GROUP BY t.denumire;



- 13- Proiectati o interogare ce va afisa numele intreg al clientilor(intr-o singura coloana) si bugetul acestora (cu sufixul EURO),
- -- o lista a proprietatilor achizitionate, pretul fiecareia (cu sufixul EURO),

SELECT c.id_client, CONCAT(c.nume, ' ', c.prenume) AS NUME_INTREG, CONCAT(c.buget_euro, 'EURO') AS BUGET,

p.denumire, CONCAT(p.pret_euro, 'EURO') AS PRET FROM clienti AS c

LEFT JOIN vanzari AS v ON c.id_client=v.id_client

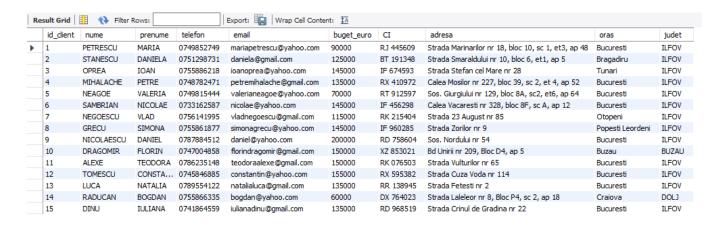
LEFT JOIN proprietati AS p ON p.id prop=v.id prop;

Re	sult Grid	Filter Rows:		Export:	Wrap Cell Content
	id_dient	NUME_INTREG	BUGET	denumire	PRET
•	1	PETRESCU MARIA	90000 EURO	apartament3	78000 EURO
	2	STANESCU DANIELA	125000 EURO	casa2	123000 EURO
	3	OPREA IOAN	145000 EURO	casa6	140000 EURO
	4	MIHALACHE PETRE	135000 EURO	casa1	128000 EURO
	5	NEAGOE VALERIA	70000 EURO	studio	61500 EURO
	6	SAMBRIAN NICOLAE	145000 EURO	casa4	136000 EURO
	7	NEGOESCU VLAD	115000 EURO	apartament2	109500 EURO
	8	GRECU SIMONA	145000 EURO	casa7	139000 EURO
	9	NICOLAESCU DANIEL	200000 EURO	casa6	140000 EURO
	10	DRAGOMIR FLORIN	150000 EURO	casa3	143000 EURO
	11	ALEXE TEODORA	150000 EURO	casa5	148000 EURO
	12	TOMESCU CONSTAN	155000 EURO	apartament1	142500 EURO
	13	LUCA NATALIA	135000 EURO	casa1	128000 EURO
	14	RADUCAN BOGDAN	60000 EURO	garsoniera	49500 EURO
	15	DINU IULIANA	135000 EURO	casa2	123000 EURO

14- Creati o vedere ce va afisa toate datele clientilor, inclusiv cele confidentiale.

CREATE OR REPLACE VIEW afisare_clienti1 AS SELECT c.id_client, c.nume, c.prenume, c.telefon, c.email, c.buget_euro, conf.CI, conf.adresa, conf.oras, conf.judet FROM clienti AS c INNER JOIN clienti_confidential AS conf ON c.id client=conf.id;

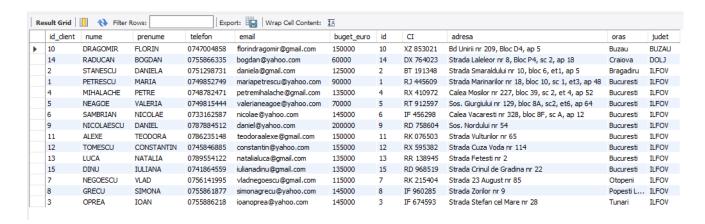
SELECT * FROM afisare clienti1;



15- Creati o vedere ce va afisa toti clientii, grupati pe judete iar in cadrul judetelor pe orase

CREATE OR REPLACE VIEW afisare_clienti2 AS SELECT * FROM clienti AS c INNER JOIN clienti_confidential AS conf ON c.id client=conf.id ORDER BY conf.judet ASC, conf.oras ASC;

SELECT * FROM afisare clienti2;

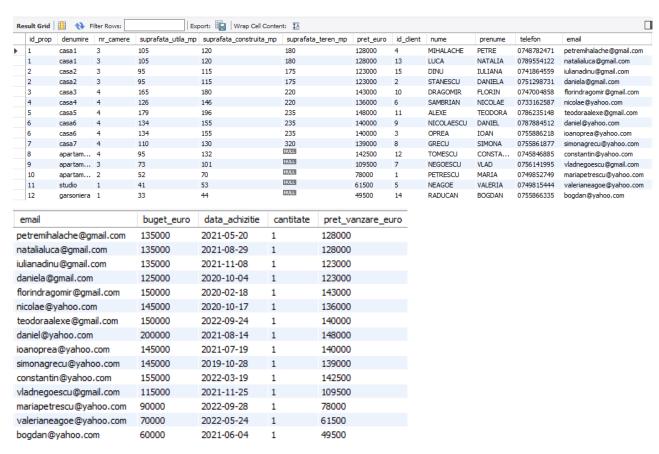


16- Creati o vedere ce va afisa lista proprietatilor, datele clientilor si datele de vanzare

CREATE OR REPLACE VIEW afisare_proprietati_clienti_vanzari AS SELECT p.*, c.*, v.data_achizitie, v.cantitate, v.pret_vanzare_euro FROM proprietati AS p

LEFT JOIN vanzari AS v ON p.id_prop=v.id_prop LEFT JOIN clienti AS c ON c.id client=v.id client;

SELECT * FROM afisare proprietati clienti vanzari;



17- Proiectati o interogare ce va afisa numele intreg al clientilor(intr-o singura coloana) si bugetul acestora (cu sufixul EURO), o lista a proprietatilor achizitionate, pretul fiecareia (cu sufixul EURO)

SELECT c.id_client, CONCAT(c.nume, ' ', c.prenume) AS NUME_INTREG, CONCAT(c.buget_euro, 'EURO') AS BUGET,

p.denumire, CONCAT(p.pret_euro, 'EURO') AS PRET FROM clienti AS c

LEFT JOIN vanzari AS v ON c.id_client=v.id_client

LEFT JOIN proprietati AS p ON p.id_prop=v.id_prop;

SAU – alternativa de script folosind vederi

SELECT id_client, CONCAT(nume, ' ', prenume) AS NUME_INTREG, CONCAT(buget_euro, 'EURO') AS BUGET,

denumire, CONCAT(pret_euro, ' EURO') AS PRET FROM afisare proprietati clienti vanzari ORDER BY id client ASC;



18- Sa se afiseze o lista a proprietatilor impreuna cu numele si prenumele clientului care a facut achizitia, ordonate dupa cea mai recenta data de achizitie

SELECT p.*, c.nume, c.prenume, v.data_achizitie FROM proprietati AS p LEFT JOIN vanzari AS v ON p.id_prop=v.id_prop LEFT JOIN clienti AS c ON c.id_client=v.id_client ORDER BY v.data_achizitie DESC;

SAU - alternativa de script folosind vederi

SELECT id_prop, denumire, nr_camere, suprafata_utila_mp, suprafata_construita_mp, suprafata_teren_mp, pret_euro, id_client, nume, prenume, data_achizitie

FROM afisare_proprietati_clienti_vanzari ORDER BY v.data achizitie DESC;

id_prop	denumire	nr_camere	suprafata_utila_mp	suprafata_construita_mp	suprafata_teren_mp	pret_euro	id_client	nume	prenume	data_achizitie
10	apartament3	2	52	70	NULL	78000	1	PETRESCU	MARIA	2022-09-28
5	casa5	4	179	196	235	148000	11	ALEXE	TEODORA	2022-09-24
11	studio	1	41	53	NULL	61500	5	NEAGOE	VALERIA	2022-05-24
8	apartament1	4	95	132	NULL	142500	12	TOMESCU	CONSTANTIN	2022-03-19
9	apartament2	3	73	101	NULL	109500	7	NEGOESCU	VLAD	2021-11-25
2	casa2	3	95	115	175	123000	15	DINU	IULIANA	2021-11-08
1	casa1	3	105	120	180	128000	13	LUCA	NATALIA	2021-08-29
6	casa6	4	134	155	235	140000	9	NICOLAESCU	DANIEL	2021-08-14
6	casa6	4	134	155	235	140000	3	OPREA	IOAN	2021-07-19
12	garsoniera	1	33	44	NULL	49500	14	RADUCAN	BOGDAN	2021-06-04
1	casa1	3	105	120	180	128000	4	MIHALACHE	PETRE	2021-05-20
4	casa4	4	126	146	220	136000	6	SAMBRIAN	NICOLAE	2020-10-17
2	casa2	3	95	115	175	123000	2	STANESCU	DANIELA	2020-10-04
3	casa3	4	165	180	220	143000	10	DRAGOMIR	FLORIN	2020-02-18
7	casa7	4	110	130	320	139000	8	GRECU	SIMONA	2019-10-28

19- Sa se afiseze datele, inclusiv cele confidentiale ale clientilor, astfel:id, nume, prenume, Cl_serie, Cl_numar, telefon, email, adresa completa(judet, oras, adresa), buget.

SELECT c.id_client AS id, c.nume, c.prenume, substring_index(conf.Cl, ' ',1) AS Cl_serie, substring_index(conf.Cl, ' ', -1) AS Cl_numar,

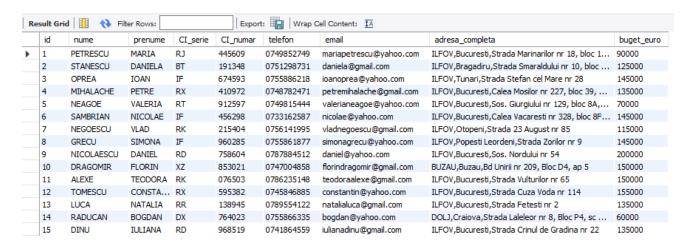
c.telefon, c.email, CONCAT(conf.judet, ',', conf.oras, ',', conf.adresa) AS adresa_completa, c.buget_euro

FROM clienti AS c INNER JOIN clienti_confidential AS conf ON c.id client=conf.id;

SAU – alternativa de script folosind vederi

SELECT id_client AS id, nume, prenume, substring_index(CI, ' `,1) AS CI_serie, substring_index(CI, ' `, -1) AS CI_numar,

telefon, email, CONCAT(judet, ',', oras, ',', adresa) AS adresa_completa, buget_euro FROM afisare_clienti1;



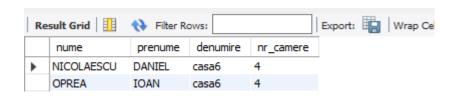
20- Sa se afiseze lista clientilor care au cumparat in anul 2021 proprietati cu 4 camere

SELECT c.nume, c.prenume, p.denumire, p.nr_camere FROM clienti AS c LEFT JOIN vanzari AS v ON c.id_client=v.id_client LEFT JOIN proprietati AS p ON p.id_prop=v.id_prop

WHERE YEAR(v.data achizitie)=2021 AND p.nr camere=4;

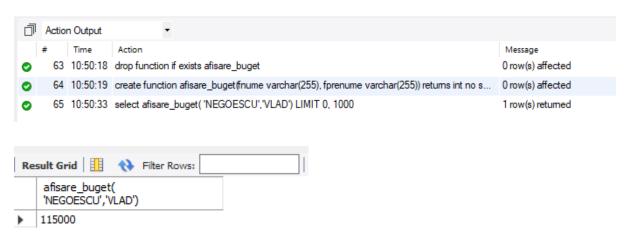
SAU - alternativa de script folosind vederi

SELECT nume, prenume, denumire, nr_camere FROM afisare_proprietati_clienti_vanzari
WHERE YEAR(data achizitie)=2021 AND nr camere=4;



21- Sa se creeze o functie ce afiseaza bugetul unei persoane cautate pe baza de nume si prenume.

```
DELIMITER //
DROP FUNCTION IF EXISTS afisare_buget //
CREATE FUNCTION afisare_buget (fnume VARCHAR(255), fprenume
VARCHAR(255)) RETURNS INT NO SQL DETERMINISTIC
BEGIN
RETURN (SELECT buget_euro FROM clienti
WHERE nume=fnume AND prenume=fprenume);
END; //
DELIMITER;
SELECT afisare_buget( 'NEGOESCU','VLAD');
```



22- Sa se creze o procedura ce afiseaza toate datele unui client, inclusiv cele confidentiale pe baza de id.

```
DELIMITER //

DROP PROCEDURE IF EXISTS find_client //

CREATE PROCEDURE find_client(IN fid INT)

BEGIN

DECLARE mesaj varchar(255);

IF(SELECT id_client FROM afisare_clienti1 WHERE id_client=fid)IS

NOT NULL

THEN

SELECT * FROM afisare_clienti1 WHERE id_client=fid;

ELSE

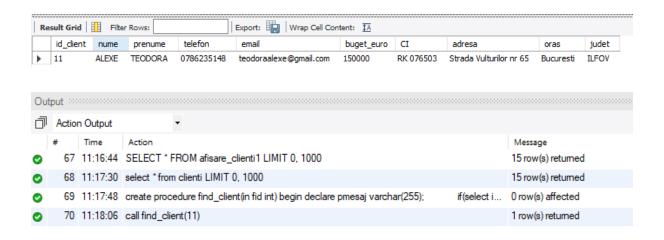
SELECT CONCAT("clientul cu id-ul ",fid,' nu exista') AS mesaj;

END IF;

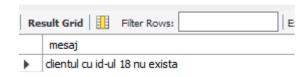
END;//

DELIMITER;

CALL find_client(11);
```



CALL find client(18);



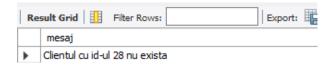
23- Sa se creeze o procedura de actualizare a telefonului si emailului unui client din tabela clienti pe baza de id.

```
DELIMITER //
      DROP PROCEDURE IF EXISTS act date //
      CREATE PROCEDURE act date (IN atelefon VARCHAR(20), aemail
VARCHAR(255), aid INT)
            BEGIN
                  DECLARE prodtelefon VARCHAR(20);
                  DECLARE prodemail VARCHAR(255);
                  SET prodtelefon=(SELECT telefon FROM clienti WHERE
id client=aid);
                  SET prodemail=(SELECT email from clienti WHERE
id client=aid);
          IF(SELECT id client FROM clienti WHERE id client=aid)IS NOT NULL
THEN
                  UPDATE clienti SET telefon=atelefon WHERE id client=aid:
                  UPDATE clienti SET email=aemail WHERE id client=aid;
        SELECT CONCAT(prodtelefon,' ',prodemail,' a fost inlocuit cu succes Cu
      ',atelefon,' ', aemail) AS mesaj;
       SELECT CONCAT("Clientul cu id-ul ",aid,' nu exista') AS mesaj;
                  END IF;
    END;//
DELIMITER;
```

CALL act_date('0788554122','lucanatalia@gmail.com', 13);



CALL act date('0788554122','lucanatalia@gmail.com', 28);



24- Creati un trigger care sa nu permita stergerea datelor din tabela clienti_confidential.

DELIMITER //

DROP TRIGGER IF EXISTS stergere_conf //

CREATE TRIGGER stergere_conf BEFORE DELETE ON clienti_confidential FOR EACH ROW

BEGIN

SIGNAL SQLSTATE '20000' SET MESSAGE_TEXT='datele nu pot fi sterse, trebuie sters intai clientul din tabla clienti';

END; //

DELIMITER;

DELETE FROM clienti_confidential where id=15;



