

PROIECT BAZE DE DATE

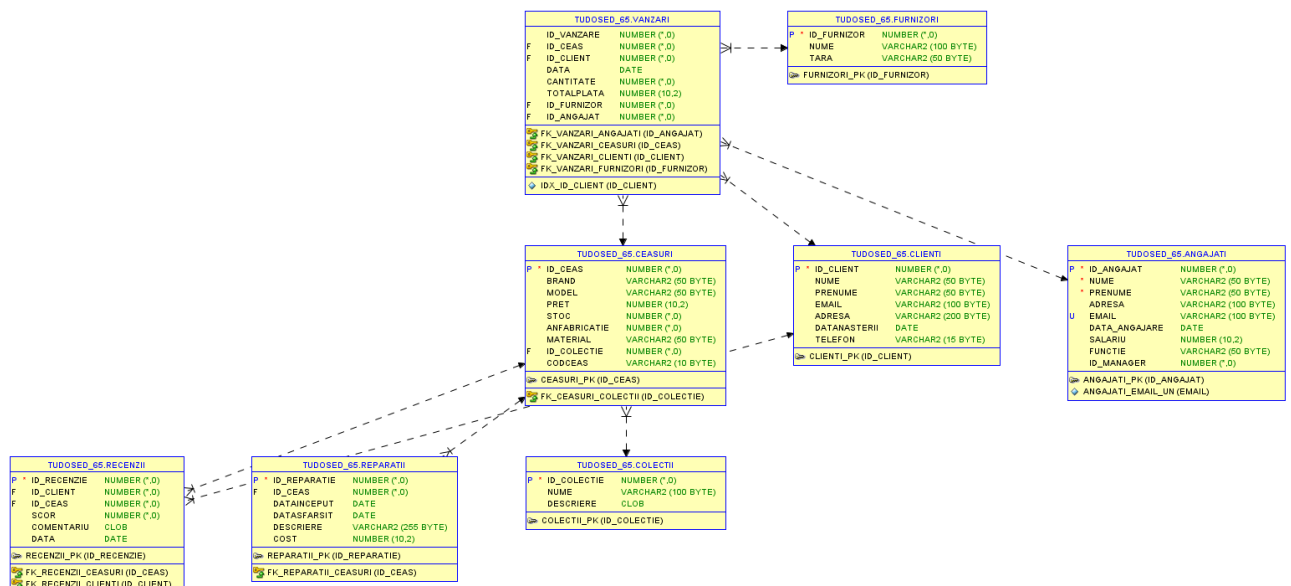
Descrierea bazei de date:

Tema proiectului meu este dezvoltarea unei baze de date detaliată pentru un magazin de ceasuri de lux, cu implementare în SQL Developer și Oracle APEX.

Magazinul folosește această bază pentru a urmări inventarul, a analiza comportamentul de cumpărare, a gestiona relațiile cu furnizorii și a evalua performanța produselor prin feedback-ul clienților. În plus, baza de date permite magazinului să răspundă eficient la cererea dinamică a pieței și să optimizeze procesele de vânzare și de servicii post-vânzare.

Baza de date creată pentru magazinul de ceasuri este structurată pentru a oferi o gestiune completă și eficientă a activităților comerciale. Schema reflectă relația dintre diferitele entități: clienți, ceasuri, vânzări, angajați, furnizori, colecții, reparații și recenzii. Fiecare tabel conține informații specifice, cum ar fi detalii despre produse, tranzacții, personal și interacțiunile cu clienții. Legăturile între tabele sunt stabilite prin chei străine, facilitând interogări complexe și menținând integritatea datelor.

Schema bazei de date:



Creare tabelelor:

-- Definirea Tabelului Ceasuri

```
CREATE TABLE Ceasuri (  
    ID_Ceas INT PRIMARY KEY,  
    Brand VARCHAR(50),  
    Model VARCHAR(50),  
    Pret DECIMAL(10, 2),  
    Stoc INT,  
    AnFabricatie INT,  
    Material VARCHAR(50),  
    ID_Collectie INT,  
    CodCeas VARCHAR(10)  
);
```

-- Definirea Tabelului Clienti

```
CREATE TABLE Clienti (  
    ID_Client INT PRIMARY KEY,  
    Nume VARCHAR(50),  
    Prenume VARCHAR(50),  
    Email VARCHAR(100),  
    Adresa VARCHAR(200),  
    DataNasterii DATE,  
    Telefon VARCHAR(15)  
);
```

-- Definirea Tabelului Vanzari

```
CREATE TABLE Vanzari (  
    ID_Vanzare INT PRIMARY KEY,  
    ID_Ceas INT,  
    ID_Client INT,  
    Data DATE,  
    Cantitate INT,  
    TotalPlata DECIMAL(10, 2),  
    ID_Furnizor INT  
);
```

-- Definirea Tabelului Furnizori

```
CREATE TABLE Furnizori (  
    ID_Furnizor INT PRIMARY KEY,  
    Nume VARCHAR(100),  
    Tara VARCHAR(50)  
);
```

-- Definirea Tabelului Colectii

```
CREATE TABLE Colectii (  
    ID_Collectie INT PRIMARY KEY,  
    Nume VARCHAR2(100),  
    Descriere CLOB  
);
```

-- Definirea Tabelului Reparatii

```
CREATE TABLE Reparatii (  
    ID_Reparatie INT PRIMARY KEY,  
    ID_Ceas INT,  
    DataInceput DATE,  
    DataSfarsit DATE,  
    Descriere VARCHAR(255),  
    Cost DECIMAL(10, 2)  
);
```

-- Definirea Tabelului Recenzii

```
CREATE TABLE Recenzii (  
    ID_Recenzie INT PRIMARY KEY,  
    ID_Client INT,  
    ID_Ceas INT,  
    Scor INT CHECK (Scor BETWEEN 1 AND 5),  
    Comentariu CLOB,  
    Data DATE  
);
```

--Definirea Tabelului Angajati

```
CREATE TABLE Angajati (  
    ID_Angajat INT PRIMARY KEY,
```

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```

Nume VARCHAR(50) NOT NULL,
Prenume VARCHAR(50) NOT NULL,
Adresa VARCHAR(100),
Email VARCHAR(100) UNIQUE,
Data_Angajare DATE,
Salariu NUMERIC(10, 2),
Functie VARCHAR(50)
);

--Adăugarea Constrângerilor de Chei Străine (FK)
ALTER TABLE Vanzari
ADD ID_Angajat INT;
ALTER TABLE Vanzari ADD CONSTRAINT FK_Vanzari_Angajati FOREIGN KEY
(ID_Angajat) REFERENCES Angajati(ID_Angajat);
ALTER TABLE Vanzari ADD CONSTRAINT FK_Vanzari_Ceasuri FOREIGN KEY
(ID_Ceas) REFERENCES Ceasuri(ID_Ceas);
ALTER TABLE Vanzari ADD CONSTRAINT FK_Vanzari_Furnizori FOREIGN KEY
(ID_Furnizor) REFERENCES Furnizori(ID_Furnizor);
ALTER TABLE Vanzari ADD CONSTRAINT FK_Vanzari_Clienti FOREIGN KEY
(ID_Client) REFERENCES Clienti(ID_Client);
ALTER TABLE Ceasuri ADD CONSTRAINT FK_Ceasuri_Collectii FOREIGN KEY
(ID_Collectie) REFERENCES Colectii(ID_Collectie);
ALTER TABLE Reparatii ADD CONSTRAINT FK_Reparatii_Ceasuri FOREIGN KEY
(ID_Ceas) REFERENCES Ceasuri(ID_Ceas);
ALTER TABLE Recenzii ADD CONSTRAINT FK_Recenzii_Ceasuri FOREIGN KEY
(ID_Ceas) REFERENCES Ceasuri(ID_Ceas);
ALTER TABLE Recenzii ADD CONSTRAINT FK_Recenzii_Clienti FOREIGN KEY
(ID_Client) REFERENCES Clienti(ID_Client);

```

Inserari:

-- Inserarea de Date în Tabelul Ceasuri folosind SELECT cu UNION ALL

```

INSERT INTO Ceasuri (ID_Ceas, Brand, Model, Pret, Stoc, AnFabricatie, Material,
ID_Collectie, CodCeas) VALUES
(1, 'Rolex', 'Submariner', 12000.00, 5, 2020, 'Otel', 1, 'RLX1001');

```

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```
INSERT INTO Ceasuri (ID_Ceas, Brand, Model, Pret, Stoc, AnFabricatie, Material,
ID_Collectie, CodCeas) VALUES
(2, 'Omega', 'Seamaster', 8000.00, 3, 2019, 'Titan', 2, 'OMG1002');
```

```
INSERT INTO Ceasuri (ID_Ceas, Brand, Model, Pret, Stoc, AnFabricatie, Material,
ID_Collectie, CodCeas) VALUES
```

```
(3, 'Tag Heuer', 'Carrera', 5500.00, 2, 2018, 'Otel', 3, 'TAG1003');
```

```
INSERT INTO Ceasuri (ID_Ceas, Brand, Model, Pret, Stoc, AnFabricatie, Material,
ID_Collectie, CodCeas)
```

```
SELECT 4, 'Patek Philippe', 'Nautilus', 25000.00, 1, 2021, 'Aur', 1, 'PTK1004' FROM DUAL
UNION ALL
```

```
SELECT 5, 'Audemars Piguet', 'Royal Oak', 30000.00, 2, 2022, 'Aur', 3, 'APG1005' FROM
DUAL
```

```
UNION ALL
```

```
SELECT 6, 'Breitling', 'Navitimer', 7000.00, 4, 2019, 'Otel', 2, 'BRT1006' FROM DUAL
```

```
UNION ALL
```

```
SELECT 7, 'Cartier', 'Santos', 6500.00, 3, 2020, 'Aur', 2, 'CRT1007' FROM DUAL
```

```
UNION ALL
```

```
SELECT 8, 'IWC', 'Portofino', 9800.00, 2, 2021, 'Otel', 3, 'IWC1008' FROM DUAL
```

```
UNION ALL
```

```
SELECT 9, 'Panerai', 'Luminor', 8500.00, 4, 2018, 'Titan', 1, 'PNR1009' FROM DUAL
```

```
UNION ALL
```

```
SELECT 10, 'Hublot', 'Big Bang', 15000.00, 1, 2022, 'Otel si Ceramica', 1, 'HBL1010' FROM
DUAL;
```

-- Inserarea de Date în Tabelul Clienti folosind SELECT cu UNION ALL

```
INSERT INTO Clienti (ID_Client, Nume, Prenume, Email, Adresa, DataNasterii, Telefon)
```

```
SELECT 1, 'Popescu', 'Ion', 'ion_popescu20@yahoo.com', 'Strada Libertății 10',
TO_DATE('1985-07-15', 'YYYY-MM-DD'), '0727895312' FROM DUAL
```

```
UNION ALL
```

```
SELECT 2, 'Ionescu', 'Maria', 'maria.ionescu35@gmail.com', 'Bulevardul Unirii 22',
TO_DATE('1990-11-30', 'YYYY-MM-DD'), '0733122315' FROM DUAL
```

```
UNION ALL
```

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```

SELECT 3, 'Vasilescu', 'Ana', 'ana_vasilescu44@gmail.com', 'Strada Victoriei 35',
TO_DATE('1995-04-01', 'YYYY-MM-DD'), '0765593395' FROM DUAL
UNION ALL
SELECT 4, 'Enescu', 'George', 'george.andronache1988@yahoo.com', 'Aleea Compozitorilor
5', TO_DATE('1988-09-12', 'YYYY-MM-DD'), '0744815495' FROM DUAL
UNION ALL
SELECT 5, 'Mihai', 'Elena', 'elena.mihailescu583@yahoo.com', 'Strada Mărășești 45',
TO_DATE('1992-05-20', 'YYYY-MM-DD'), '0723045940' FROM DUAL
UNION ALL
SELECT 6, 'Constantin', 'Dan', 'danconstantin58@gmail.com', 'Strada Gen Vasile Milea 17',
TO_DATE('1987-04-15', 'YYYY-MM-DD'), '0722786628' FROM DUAL
UNION ALL
SELECT 7, 'Manole', 'Mircea', 'mircea.manole55@outlook.com', 'Strada Aviatorilor 78',
TO_DATE('1993-08-10', 'YYYY-MM-DD'), '0745029920' FROM DUAL
UNION ALL
SELECT 8, 'Stefan', 'Ioana', 'ioana_stefan37@gmail.com', 'Bulevardul Eroilor 33',
TO_DATE('1996-03-22', 'YYYY-MM-DD'), '0770190540' FROM DUAL
UNION ALL
SELECT 9, 'Dumitrescu', 'Andrei', 'andrei.dumitrescu@gmail.com', 'Strada Independenței 21',
TO_DATE('1991-06-30', 'YYYY-MM-DD'), '0729155715' FROM DUAL
UNION ALL
SELECT 10, 'Nicolescu', 'Cristina', 'cristina.nicolescu@yahoo.com', 'Strada Valea Cascadelor
48', TO_DATE('1994-10-15', 'YYYY-MM-DD'), '0726145082' FROM DUAL;

```

-- Inserarea de Date în Tabelul Vanzari

```

INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata,
ID_Furnizor) VALUES
(1, 1, 1, TO_DATE('2024-01-10', 'YYYY-MM-DD'), 1, 12000.00, 1); --DELETE apoi;
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata,
ID_Furnizor) VALUES
(1, 1, 1, TO_DATE('2023-01-10', 'YYYY-MM-DD'), 1, 12000.00, 1);
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata,
ID_Furnizor) VALUES
(2, 2, 2, TO_DATE('2023-02-15', 'YYYY-MM-DD'), 1, 8000.00, 2);

```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(3, 3, 3, TO_DATE('2023-03-20', 'YYYY-MM-DD'), 1, 5500.00, 1);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(4, 4, 4, TO_DATE('2023-04-05', 'YYYY-MM-DD'), 1, 25000.00, 3);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(5, 5, 5, TO_DATE('2023-05-12', 'YYYY-MM-DD'), 1, 30000.00, 2);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(6, 6, 6, TO_DATE('2023-06-18', 'YYYY-MM-DD'), 1, 7000.00, 1);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(7, 7, 7, TO_DATE('2023-07-25', 'YYYY-MM-DD'), 1, 6500.00, 2);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(8, 8, 8, TO_DATE('2023-08-30', 'YYYY-MM-DD'), 1, 9800.00, 3);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(9, 9, 9, TO_DATE('2023-09-15', 'YYYY-MM-DD'), 1, 8500.00, 1);
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata, ID_Furnizor) VALUES
```

```
(10, 10, 10, TO_DATE('2023-10-22', 'YYYY-MM-DD'), 1, 15000.00, 2);
```

-- Inserarea de Date în Tabelul Furnizori

```
INSERT INTO Furnizori (ID_Furnizor, Nume, Tara)
```

```
SELECT 1, 'LuxTime', 'Elveția' FROM DUAL UNION ALL
```

```
SELECT 2, 'ElegantTime', 'Germania' FROM DUAL UNION ALL
```

```
SELECT 3, 'ClassicWatches', 'Franța' FROM DUAL;
```

-- Inserarea de Date în Tabelul Colectii

```
INSERT INTO Colectii (ID_Colectie, Nume, Descriere)
```

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```
SELECT 1, 'Modern Design', 'Colectie cu ceasuri de design modern' FROM DUAL UNION
ALL
```

```
SELECT 2, 'Elegant Timepieces', 'Ceasuri elegante pentru ocazii speciale' FROM DUAL
UNION ALL
```

```
SELECT 3, 'Sporty Collection', 'Colecție cu ceasuri sportive' FROM DUAL UNION ALL
```

```
SELECT 4, 'Vintage Classics', 'Ceasuri clasice vintage' FROM DUAL;
```

-- Inserarea de Date în Tabelul Reparatii

```
INSERT INTO Reparatii (ID_Reparatie, ID_Ceas, DataInceput, DataSfarsit, Descriere, Cost)
VALUES
```

```
(1, 2, TO_DATE('2023-02-15', 'YYYY-MM-DD'), TO_DATE('2023-02-20', 'YYYY-MM-DD'), 'Inlocuire baterie', 50.00);
```

```
INSERT INTO Reparatii (ID_Reparatie, ID_Ceas, DataInceput, DataSfarsit, Descriere, Cost)
VALUES
```

```
(2, 3, TO_DATE('2023-03-10', 'YYYY-MM-DD'), TO_DATE('2023-03-14', 'YYYY-MM-DD'), 'Reparare mecanism', 200.00);
```

```
INSERT INTO Reparatii (ID_Reparatie, ID_Ceas, DataInceput, DataSfarsit, Descriere, Cost)
VALUES
```

```
(3, 4, TO_DATE('2023-05-25', 'YYYY-MM-DD'), TO_DATE('2023-05-28', 'YYYY-MM-DD'), 'Reparare mecanism', 300.00);
```

-- Inserarea de Date în Tabelul Recenzii

```
INSERT INTO Recenzii (ID_Recenzie, ID_Ceas, Scor, Comentariu, Data) VALUES
```

```
(1, 1, 5, 'Excelent!', TO_DATE('2023-02-20', 'YYYY-MM-DD'));
```

```
INSERT INTO Recenzii (ID_Recenzie, ID_Ceas, Scor, Comentariu, Data) VALUES
```

```
(2, 2, 4, 'Foarte bun, dar scump.', TO_DATE('2023-03-15', 'YYYY-MM-DD'));
```

```
INSERT INTO Recenzii (ID_Recenzie, ID_Ceas, Scor, Comentariu, Data) VALUES
```

```
(3, 3, 3, 'Acceptabil pentru pretul sau.', TO_DATE('2023-04-10', 'YYYY-MM-DD'));
```

-- Inserarea de Date în Tabelul Angajati

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```


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```
SELECT 1, 'Radulescu', 'Andrei', 'Strada Muza Adormita 16',
'andrei_radulescu90@yahoo.com', TO_DATE('1990-09-15', 'YYYY-MM-DD'), '5000',
'Manager magazin' FROM DUAL;
```

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```

```
SELECT 2, 'Alexe', 'Bogdan', 'Strada Cetatii 7', 'bogdan_alexu@gmail.com', TO_DATE('1999-
06-24', 'YYYY-MM-DD'), '4200', 'Tehnician service' FROM DUAL;
```

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```

```
SELECT 3, 'Popa', 'Andreea', 'Strada Oltenitei 65', 'andreeapopa487@yahoo.com',
TO_DATE('1997-11-12', 'YYYY-MM-DD'), '3000', 'Casier' FROM DUAL;
```

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```

```
SELECT 4, 'Stan', 'Anca', 'Strada Berceni 48', 'anca_stan71@outlook.com', TO_DATE('1998-
12-8', 'YYYY-MM-DD'), '3000', 'Casier' FROM DUAL;
```

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```

```
SELECT 5, 'Mocanu', 'Antonia', 'Strada Elisabeta 19', 'antoniamocanu1997@yahoo.com',
TO_DATE('1997-10-19', 'YYYY-MM-DD'), 3000.00, 'Casier' FROM DUAL;
```

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```

```
SELECT 6, 'Paraschiv', 'Liliana', 'Strada Apusului 27', 'liliana_paraschiv1970@yahoo.com',
TO_DATE('1970-03-28', 'YYYY-MM-DD'), 3000.00, 'Femeie de servicii' FROM DUAL;
```

```
INSERT INTO Angajati (ID_Angajat, Nume, Prenume, Adresa, Email, Data_Angajare,
Salariu, Functie)
```

```
SELECT 7, 'Tudor', 'Andrei', 'Strada Decebal 39', 'andrei.tudor2002@gmail.com',
TO_DATE('2002-04-18', 'YYYY-MM-DD'), 2000.00, 'Tehnician Junior' FROM DUAL;
```

Adaugare Inregistrare cu numele meu:

```
INSERT INTO CLIENTI (ID_Client, Nume, Prenume, Email, Adresa, DataNasterii, Telefon)
SELECT 11, 'Tudose', 'Razvan', 'tudosedragos22@stud.ase.ro', 'Bucuresti', TO_DATE('2003-
10-28', 'YYYY-MM-DD'), '0729128281' FROM DUAL;
```

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata,
ID_Furnizor) VALUES
```

```
(11, 1, 11, TO_DATE('2023-12-21', 'YYYY-MM-DD'), 1, 12000.00, 1);
```

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Afisarea inregistrarii cu numele meu:

SELECT * FROM CLIENTI WHERE Nume = 'Tudose';

The screenshot shows the APEX SQL Workshop interface. The SQL command entered is: `SELECT * FROM CLIENTI WHERE Nume = 'Tudose';`. The results are displayed in a table with 7 columns: ID_CLIENT, NUME, PRENUME, EMAIL, ADRESA, DATANASTERII, and TELEFON. One row is returned for the client with ID 11.

| ID_CLIENT | NUME | PRENUME | EMAIL | ADRESA | DATANASTERII | TELEFON |
|-----------|--------|---------|----------------------------|-----------|--------------|------------|
| 11 | Tudose | Razvan | tudosedragos22@stud.ase.ro | Bucuresti | 10/28/2003 | 0729128281 |

1 rows returned in 0.01 seconds

The screenshot shows the Oracle SQL Developer interface. The script contains several SQL statements, including table creation, data insertion, and a query to display the client record. The output of the last statement is shown in the Script Output window.

```

(1, 2, TO_DATE('2023-02-15', 'YYYY-MM-DD'), TO_DATE('2023-02-20', 'YYYY-MM-DD'), 'Inlocuire baterie', 50.00);

INSERT INTO Reparatii (ID_Reparatie, ID_Ceas, DataInceput, DataSfarsit, Descriere, Cost) VALUES
(2, 3, TO_DATE('2023-03-10', 'YYYY-MM-DD'), TO_DATE('2023-03-14', 'YYYY-MM-DD'), 'Reparare mecanism', 200.00);

INSERT INTO Reparatii (ID_Reparatie, ID_Ceas, DataInceput, DataSfarsit, Descriere, Cost) VALUES
(3, 4, TO_DATE('2023-05-25', 'YYYY-MM-DD'), TO_DATE('2023-05-28', 'YYYY-MM-DD'), 'Reparare mecanism', 300.00);

-- Definirea Tabelului Recenzii
CREATE TABLE Recenzii (
  ID_Recenzie INT PRIMARY KEY,
  ID_Client INT,
  ID_Ceas INT,
  Scor INT CHECK (Scor BETWEEN 1 AND 5),
  Comentariu CLOB,
  Data DATE
);

INSERT INTO Recenzii (ID_Recenzie, ID_Ceas, Scor, Comentariu, Data) VALUES
(1, 1, 5, 'Excelent!', TO_DATE('2023-02-20', 'YYYY-MM-DD'));
INSERT INTO Recenzii (ID_Recenzie, ID_Ceas, Scor, Comentariu, Data) VALUES
(2, 2, 4, 'Foarte bun, dar scump.', TO_DATE('2023-03-15', 'YYYY-MM-DD'));
INSERT INTO Recenzii (ID_Recenzie, ID_Ceas, Scor, Comentariu, Data) VALUES
(3, 3, 3, 'Acceptabil pentru pretul sau.', TO_DATE('2023-04-10', 'YYYY-MM-DD'));

--Adaugare inregistrare cu numele meu
INSERT INTO CLIENTI (ID_Client, Nume, Prenume, Email, Adresa, DataNasterii, Telefon)
SELECT 11, 'Tudose', 'Razvan', 'tudosedragos22@stud.ase.ro', 'Bucuresti', TO_DATE('2003-10-28', 'YYYY-MM-DD'), '0729128281' FROM DUAL;

--Afisarea inregistrarii
SELECT * FROM CLIENTI WHERE Nume = 'Tudose';
  
```

Script Output:

```

1 row inserted.

ID_CLIENT NUME PRENUME EMAIL
-----
11 Tudose Razvan tudosedragos22@stud.ase.ro
  
```

Actualizari, stergeri si alte operatii:

```
DELETE FROM VANZARI WHERE ID_Vanzare = 1;
```

```
-- Actualizam inregistrarile orfane cu un ID_Client valid.
```

```
UPDATE Vanzari
```

```
SET ID_Client = 1
```

```
WHERE ID_Client NOT IN (SELECT ID_Client FROM Clienti);
```

```
ALTER TABLE Angajati
```

```
ADD ID_Manager INT;
```

```
UPDATE Angajati
```

```
SET ID_Manager = 1
```

```
WHERE ID_Angajat IN (2,3,4,5,6);
```

```
-- Actualizare casiera la postul de casier șef
```

```
UPDATE Angajati
```

```
SET Functie = 'Casier Sef'
```

```
WHERE ID_Angajat = 3;
```

```
UPDATE Angajati
```

```
SET ID_Manager = (SELECT ID_Angajat FROM Angajati WHERE Nume = 'Alexe' AND  
Prenume = 'Bogdan')
```

```
WHERE Nume = 'Tudor' AND Prenume = 'Andrei';
```

```
UPDATE Angajati
```

```
SET ID_Manager = (SELECT ID_Angajat FROM Angajati WHERE Nume = 'Popa' AND  
Prenume = 'Andreea')
```

```
WHERE Nume IN ('Stan', 'Mocanu', 'Paraschiv');
```

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Tabelele create si populate arata astfel:

Tabela Angajati cu datele aferente:

Oracle SQL Developer: Table TUDOSE_65.ANGAJATI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|-----------------|--------------------|----------|--------------|-----------|----------|
| 1 ID_ANGAJAT | NUMBER(38,0) | No | (null) | 1 (null) | |
| 2 NUME | VARCHAR2(50 BYTE) | No | (null) | 2 (null) | |
| 3 PRENUME | VARCHAR2(50 BYTE) | No | (null) | 3 (null) | |
| 4 ADRESA | VARCHAR2(100 BYTE) | Yes | (null) | 4 (null) | |
| 5 EMAIL | VARCHAR2(100 BYTE) | Yes | (null) | 5 (null) | |
| 6 DATA_ANGAJARE | DATE | Yes | (null) | 6 (null) | |
| 7 SALARIU | NUMBER(10,2) | Yes | (null) | 7 (null) | |
| 8 FUNCTIE | VARCHAR2(50 BYTE) | Yes | (null) | 8 (null) | |
| 9 ID_MANAGER | NUMBER(38,0) | Yes | (null) | 9 (null) | |

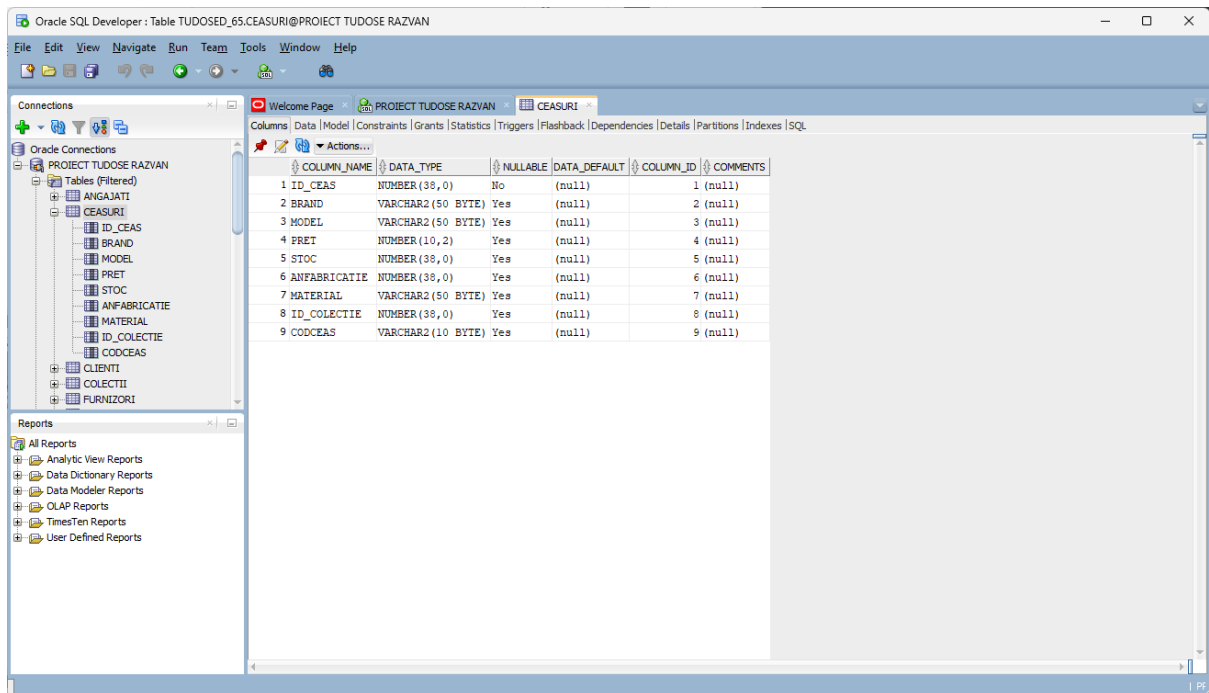
Oracle SQL Developer: Table TUDOSE_65.ANGAJATI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_ANGAJAT | NUME | PRENUME | ADRESA | EMAIL | DATA_ANGAJARE | SALARIU | FUNCTIE | ID_MANAGER |
|------------|-------------------|---------|-------------------------|---------------------------------|---------------|---------|-------------------|------------|
| 1 | Radulescu Andrei | | Strada Muza Adormita 16 | andrei_radulescu90@yahoo.com | 15-SEP-90 | 5000 | Manager magazin | (null) |
| 2 | Alexe Bogdan | | Strada Cetatii 7 | bogdan_alex@gmail.com | 24-JUN-99 | 4200 | Tehnician service | 1 |
| 3 | Tudor Andrei | | Strada Decebal 39 | andrei.tudor2002@gmail.com | 18-APR-02 | 2500 | Tehnician Junior | 2 |
| 4 | Popa Andreea | | Strada Oltenitei 65 | andreeapopa487@yahoo.com | 12-NOV-97 | 3000 | Casier Sef | 1 |
| 5 | Stan Anca | | Strada Bercei 48 | anca_stan71@outlook.com | 08-DEC-98 | 3000 | Casier | 3 |
| 6 | Mocanu Antonia | | Strada Elisabeta 19 | antoniamocanu1997@yahoo.com | 19-OCT-97 | 3000 | Casier | 3 |
| 7 | Paraschiv Liliana | | Strada Apusului 27 | liliana_paraschiv1970@yahoo.com | 28-MAR-70 | 3000 | Femeie de servici | 3 |

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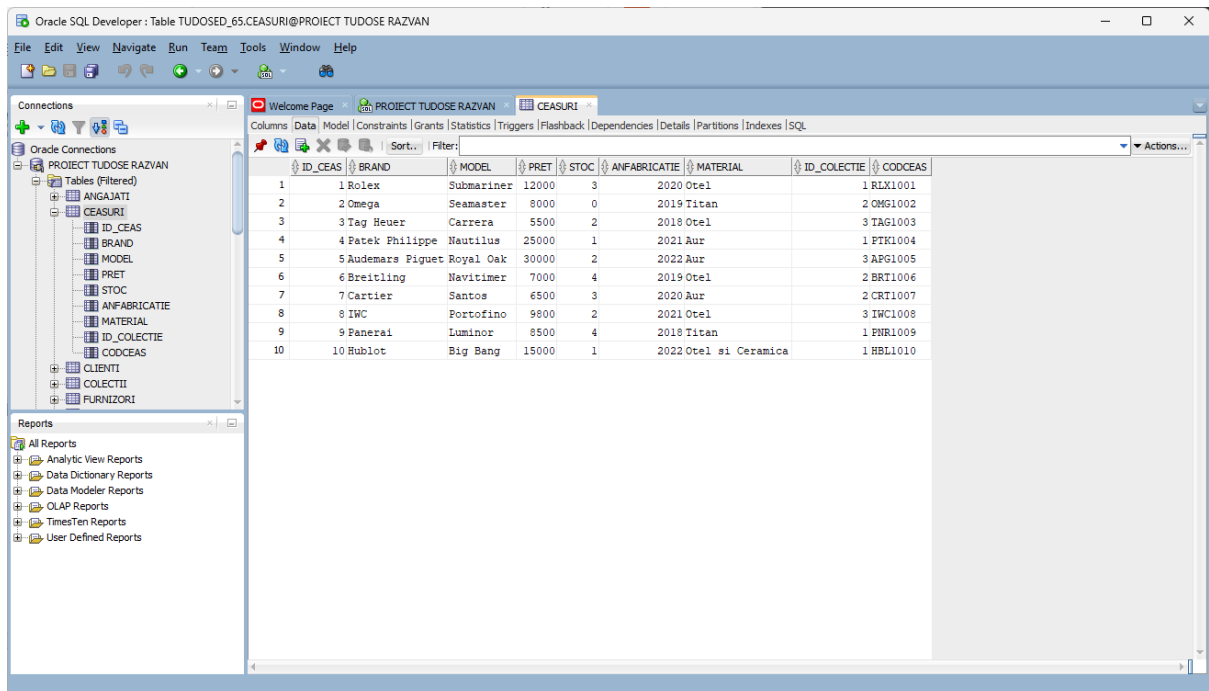
Tabela Ceasuri cu datele aferente:



Oracle SQL Developer: Table TUDOSE_65.CEASURI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|----------------|--------------------|----------|--------------|-----------|----------|
| 1 ID_CEAS | NUMBER (38,0) | No | (null) | 1 | (null) |
| 2 BRAND | VARCHAR2 (50 BYTE) | Yes | (null) | 2 | (null) |
| 3 MODEL | VARCHAR2 (50 BYTE) | Yes | (null) | 3 | (null) |
| 4 PRET | NUMBER (10,2) | Yes | (null) | 4 | (null) |
| 5 STOC | NUMBER (38,0) | Yes | (null) | 5 | (null) |
| 6 ANFABRICATIE | NUMBER (38,0) | Yes | (null) | 6 | (null) |
| 7 MATERIAL | VARCHAR2 (50 BYTE) | Yes | (null) | 7 | (null) |
| 8 ID_COLECTIE | NUMBER (38,0) | Yes | (null) | 8 | (null) |
| 9 CODCEAS | VARCHAR2 (10 BYTE) | Yes | (null) | 9 | (null) |



Oracle SQL Developer: Table TUDOSE_65.CEASURI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_CEAS | BRAND | MODEL | PRET | STOC | ANFABRICATIE | MATERIAL | ID_COLECTIE | CODCEAS |
|---------|-----------------|------------|-------|------|--------------|------------------|-------------|---------|
| 1 | Rolex | Submariner | 12000 | 3 | 2020 | Otel | 1 | RLX1001 |
| 2 | Omega | Seamaster | 8000 | 0 | 2019 | Titan | 2 | OMG1002 |
| 3 | Tag Heuer | Carrera | 5500 | 2 | 2018 | Otel | 3 | TAG1003 |
| 4 | Patek Philippe | Nautilus | 25000 | 1 | 2021 | Aur | 1 | PTK1004 |
| 5 | Audemars Piguet | Royal Oak | 30000 | 2 | 2022 | Aur | 3 | APG1005 |
| 6 | Breitling | Navitimer | 7000 | 4 | 2019 | Otel | 2 | BRT1006 |
| 7 | Cartier | Santos | 6500 | 3 | 2020 | Aur | 2 | CRT1007 |
| 8 | IWC | Portofino | 9800 | 2 | 2021 | Otel | 3 | IWC1008 |
| 9 | Panerai | Luminor | 8500 | 4 | 2018 | Titan | 1 | PNR1009 |
| 10 | Hublot | Big Bang | 15000 | 1 | 2022 | Otel si Ceramica | 1 | HBL1010 |

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Tabela Clienti cu datele aferente:

Oracle SQL Developer: Table TUDOSE_65.CLIENTI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| 1 | COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---|--------------|---------------------|----------|--------------|-----------|----------|
| 1 | ID_CLIENT | NUMBER (38,0) | No | (null) | 1 | (null) |
| 2 | NUME | VARCHAR2 (50 BYTE) | Yes | (null) | 2 | (null) |
| 3 | PRENUME | VARCHAR2 (50 BYTE) | Yes | (null) | 3 | (null) |
| 4 | EMAIL | VARCHAR2 (100 BYTE) | Yes | (null) | 4 | (null) |
| 5 | ADRESA | VARCHAR2 (200 BYTE) | Yes | (null) | 5 | (null) |
| 6 | DATANASTERII | DATE | Yes | (null) | 6 | (null) |
| 7 | TELEFON | VARCHAR2 (15 BYTE) | Yes | (null) | 7 | (null) |

Oracle SQL Developer: Table TUDOSE_65.CLIENTI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| | ID_CLIENT | NUME | PRENUME | EMAIL | ADRESA | DATANASTERII | TELEFON |
|----|-----------|------------|----------|---------------------------------|----------------------------|--------------|------------|
| 1 | 1 | Popescu | Ion | ion_popescu20@yahoo.com | Strada Libertății 10 | 15-JUL-85 | 0727895312 |
| 2 | 2 | Ionescu | Maria | maria.ionescu35@gmail.com | Bulevardul Unirii 22 | 30-NOV-90 | 0733122315 |
| 3 | 3 | Vasilescu | Ana | ana_vasilescu44@gmail.com | Strada Victoriei 35 | 01-APR-95 | 0765593395 |
| 4 | 4 | Enescu | George | george.andronache1988@yahoo.com | Aleea Compozitorilor 5 | 12-SEP-88 | 0744815495 |
| 5 | 5 | Mihai | Elena | elena.mihailescu583@yahoo.com | Strada Mărășești 45 | 20-MAY-92 | 0723045940 |
| 6 | 6 | Constantin | Dan | danconstantin58@gmail.com | Strada Gen Vasile Milea 17 | 15-APR-87 | 0722786628 |
| 7 | 7 | Manole | Mircea | mircea.manole56@outlook.com | Strada Aviatorilor 78 | 10-AUG-93 | 0745029920 |
| 8 | 8 | Stefan | Ioana | ioana_stefan37@gmail.com | Bulevardul Eroilor 33 | 22-MAR-96 | 0770190540 |
| 9 | 9 | Dumitrescu | Andrei | andrei.dumitrescu@gmail.com | Strada Independenței 21 | 30-JUN-91 | 0729155715 |
| 10 | 10 | Nicolescu | Cristina | cristina.nicolescu@yahoo.com | Strada Valea Cascadelor 48 | 15-OCT-94 | 0726145082 |
| 11 | 11 | Tudose | Razvan | tudosedragos22@stud.ase.ro | Bucuresti | 28-OCT-03 | 0729128281 |

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Tabela Colectii cu datele aferente:

Oracle SQL Developer : Table TUDOSD_65.COLECTII@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---------------|--------------------|----------|--------------|-----------|----------|
| 1 ID_COLECTIE | NUMBER(38,0) | No | (null) | 1 (null) | |
| 2 NUME | VARCHAR2(100 BYTE) | Yes | (null) | 2 (null) | |
| 3 DESCRIERE | CLOB | Yes | (null) | 3 (null) | |

Connections: PROJECT TUDOSE RAZVAN, Tables (Filtered): ANGAJATI, CEASURI, CLIENTI, ID_CLIENT, NUME, PRENUME, EMAIL, ADRESA, DATANASTERII, TELEFON, COLECTII, ID_COLECTIE, NUME.

Reports: All Reports, Analytic View Reports, Data Dictionary Reports, Data Modeler Reports, OLAP Reports, TimesTen Reports, User Defined Reports.

Oracle SQL Developer : Table TUDOSD_65.COLECTII@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_COLECTIE | NUME | DESCRIERE |
|-------------|----------------------|---|
| 1 | 1 Modern Design | Colectie cu ceasuri de design modern |
| 2 | 2 Elegant Timepieces | Ceasuri elegante pentru ocazii speciale |
| 3 | 3 Sporty Collection | Colectie cu ceasuri sportive |
| 4 | 4 Vintage Classics | Ceasuri clasice vintage |

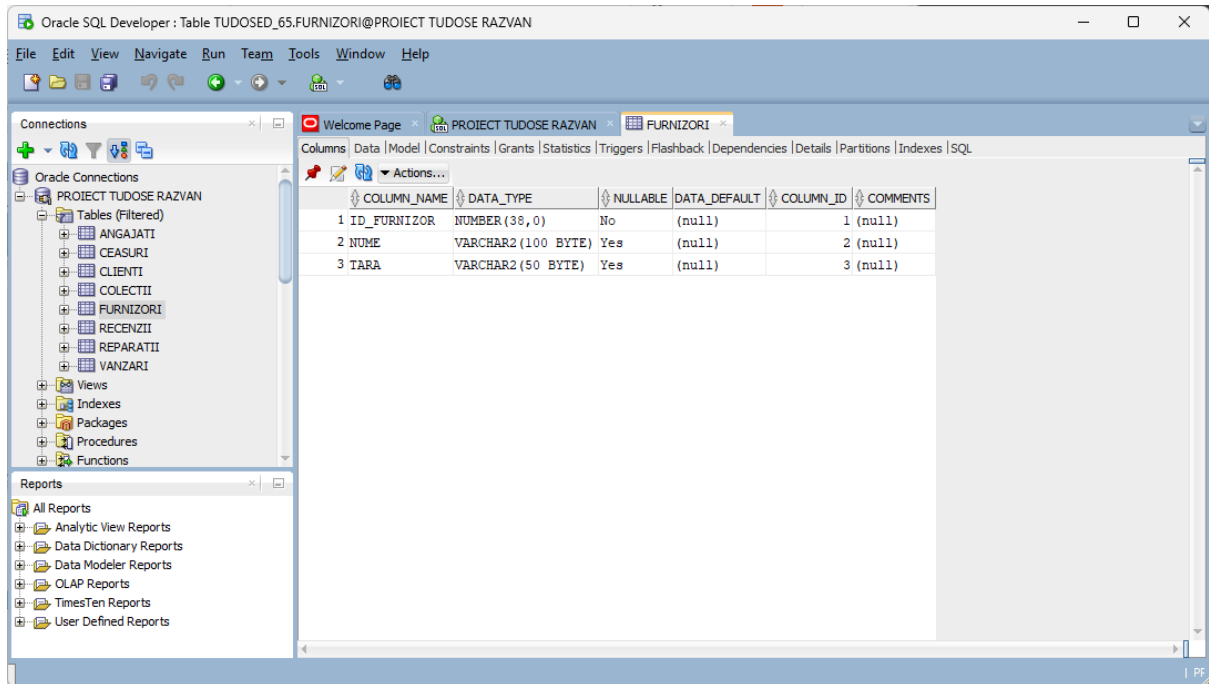
Connections: PROJECT TUDOSE RAZVAN, Tables (Filtered): ANGAJATI, CEASURI, CLIENTI, ID_CLIENT, NUME, PRENUME, EMAIL, ADRESA, DATANASTERII, TELEFON, COLECTII, ID_COLECTIE, NUME.

Reports: All Reports, Analytic View Reports, Data Dictionary Reports, Data Modeler Reports, OLAP Reports, TimesTen Reports, User Defined Reports.

Tudose Dragos Razvan Alexandru

Grupa E-1065

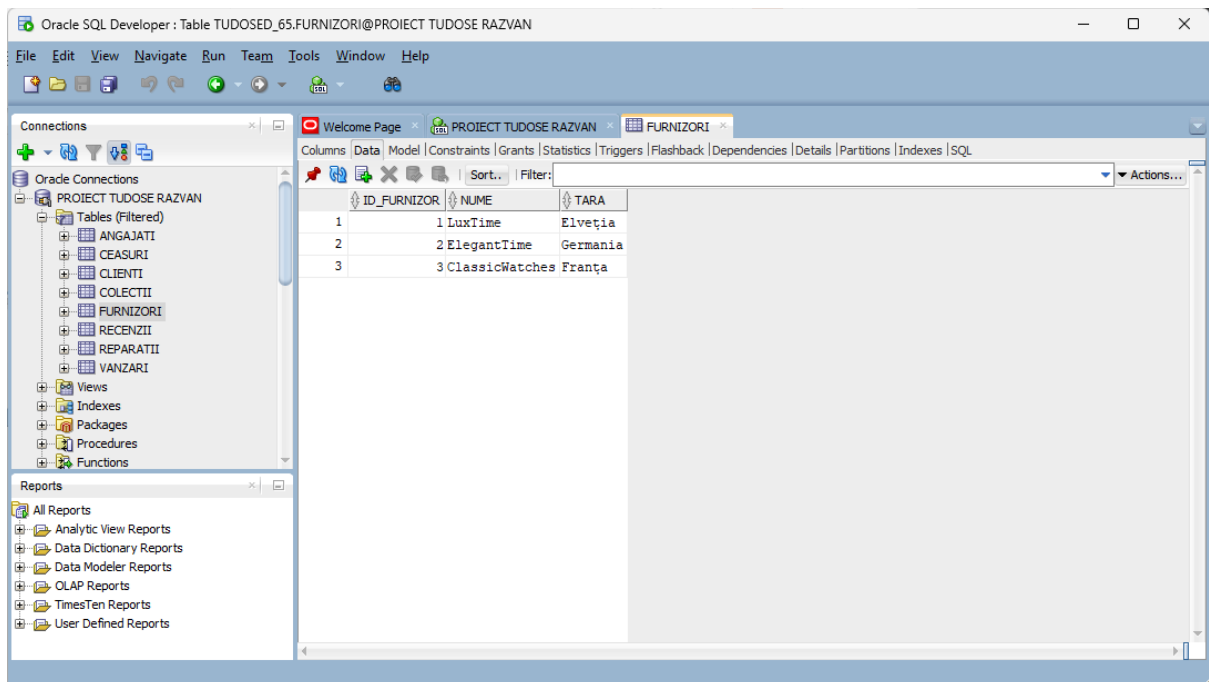
Tabela Furnizori cu datele aferente:



Oracle SQL Developer : Table TUDOSD_65.FURNIZORI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---------------|---------------------|----------|--------------|-----------|----------|
| 1 ID_FURNIZOR | NUMBER (38, 0) | No | (null) | 1 (null) | |
| 2 NUME | VARCHAR2 (100 BYTE) | Yes | (null) | 2 (null) | |
| 3 TARA | VARCHAR2 (50 BYTE) | Yes | (null) | 3 (null) | |



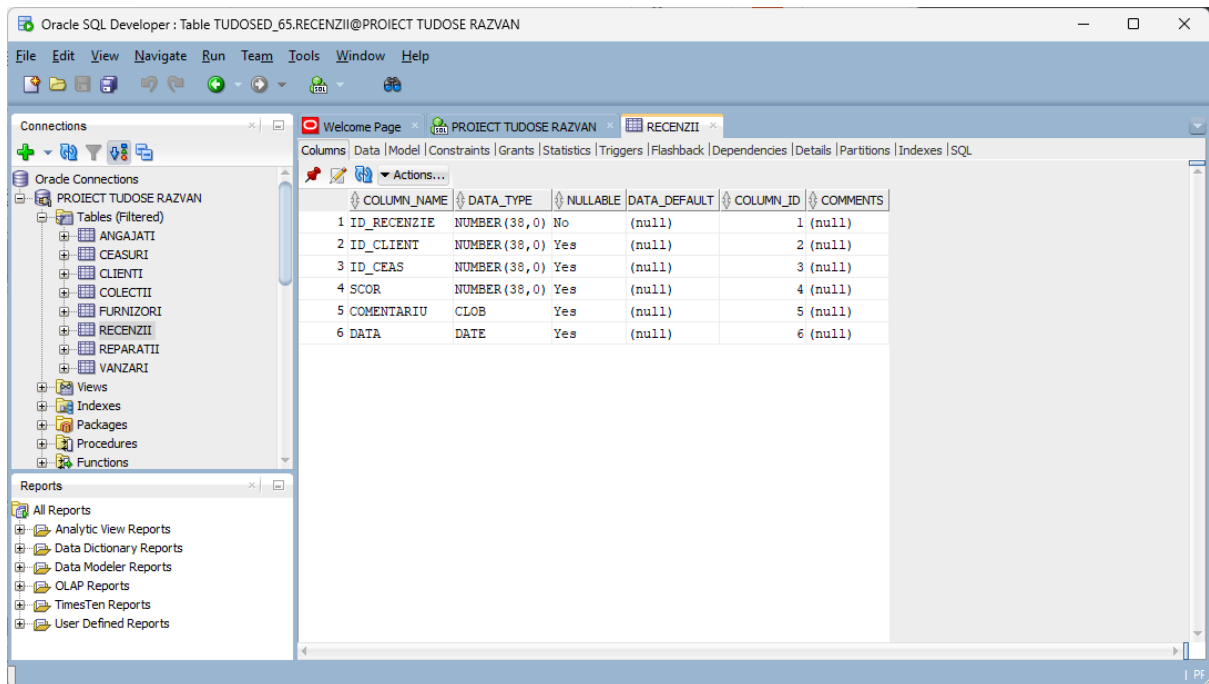
Oracle SQL Developer : Table TUDOSD_65.FURNIZORI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_FURNIZOR | NUME | TARA |
|-------------|------------------|----------|
| 1 | 1 LuxTime | Elveția |
| 2 | 2 ElegantTime | Germania |
| 3 | 3 ClassicWatches | Franta |

Tudose Dragos Razvan Alexandru Grupa E-1065

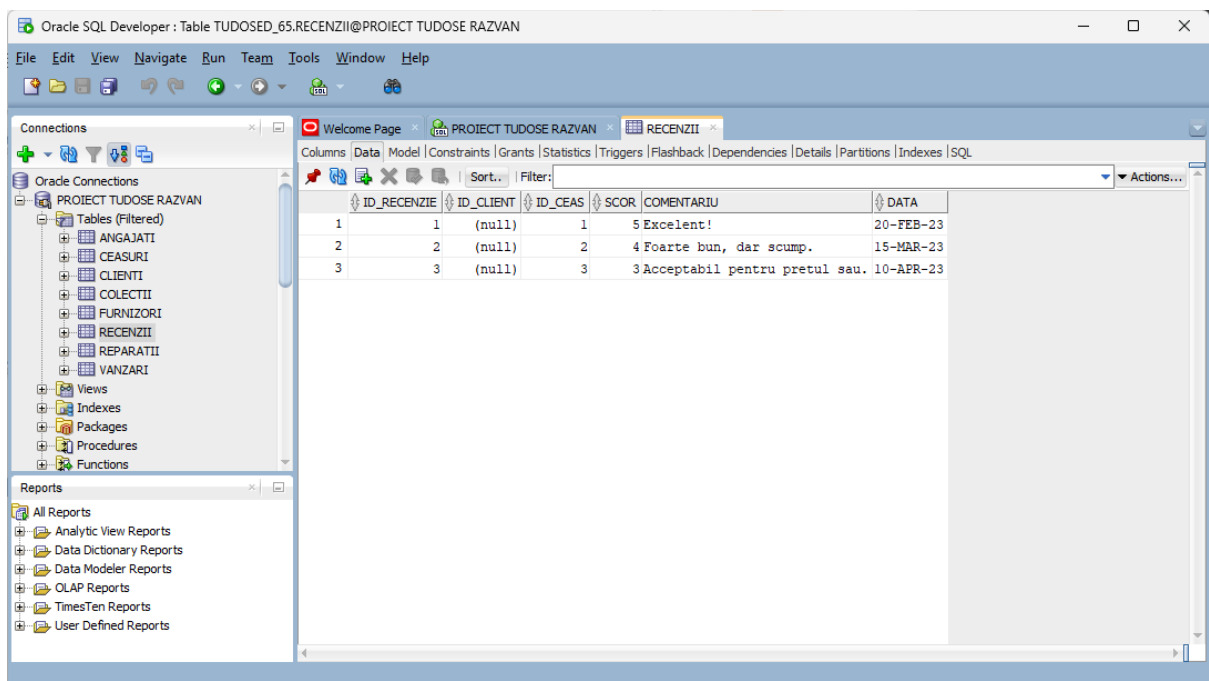
Tabela Recenzii cu datele aferente:



Oracle SQL Developer : Table TUDOSD_65.RECENZII@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|---------------|----------------|----------|--------------|-----------|----------|
| 1 ID_RECENZIE | NUMBER (38, 0) | No | (null) | 1 (null) | |
| 2 ID_CLIENT | NUMBER (38, 0) | Yes | (null) | 2 (null) | |
| 3 ID_CEAS | NUMBER (38, 0) | Yes | (null) | 3 (null) | |
| 4 SCOR | NUMBER (38, 0) | Yes | (null) | 4 (null) | |
| 5 COMENTARIU | CLOB | Yes | (null) | 5 (null) | |
| 6 DATA | DATE | Yes | (null) | 6 (null) | |



Oracle SQL Developer : Table TUDOSD_65.RECENZII@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_RECENZIE | ID_CLIENT | ID_CEAS | SCOR | COMENTARIU | DATA |
|-------------|-----------|---------|------|---------------------------------|-----------|
| 1 | 1 | (null) | 1 | 5 Excelent! | 20-FEB-23 |
| 2 | 2 | (null) | 2 | 4 Foarte bun, dar scump. | 15-MAR-23 |
| 3 | 3 | (null) | 3 | 3 Acceptabil pentru pretul sau. | 10-APR-23 |

Tabela Reparatii cu datele aferente:

Oracle SQL Developer : Table TUDOSD_65.REPARATII@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| COLUMN_NAME | DATA_TYPE | NULLABLE | DATA_DEFAULT | COLUMN_ID | COMMENTS |
|----------------|---------------------|----------|--------------|-----------|----------|
| 1 ID_REPARATIE | NUMBER (38, 0) | No | (null) | 1 (null) | |
| 2 ID_CEAS | NUMBER (38, 0) | Yes | (null) | 2 (null) | |
| 3 DATAINCEPUT | DATE | Yes | (null) | 3 (null) | |
| 4 DATASFARSIT | DATE | Yes | (null) | 4 (null) | |
| 5 DESCRIERE | VARCHAR2 (255 BYTE) | Yes | (null) | 5 (null) | |
| 6 COST | NUMBER (10, 2) | Yes | (null) | 6 (null) | |

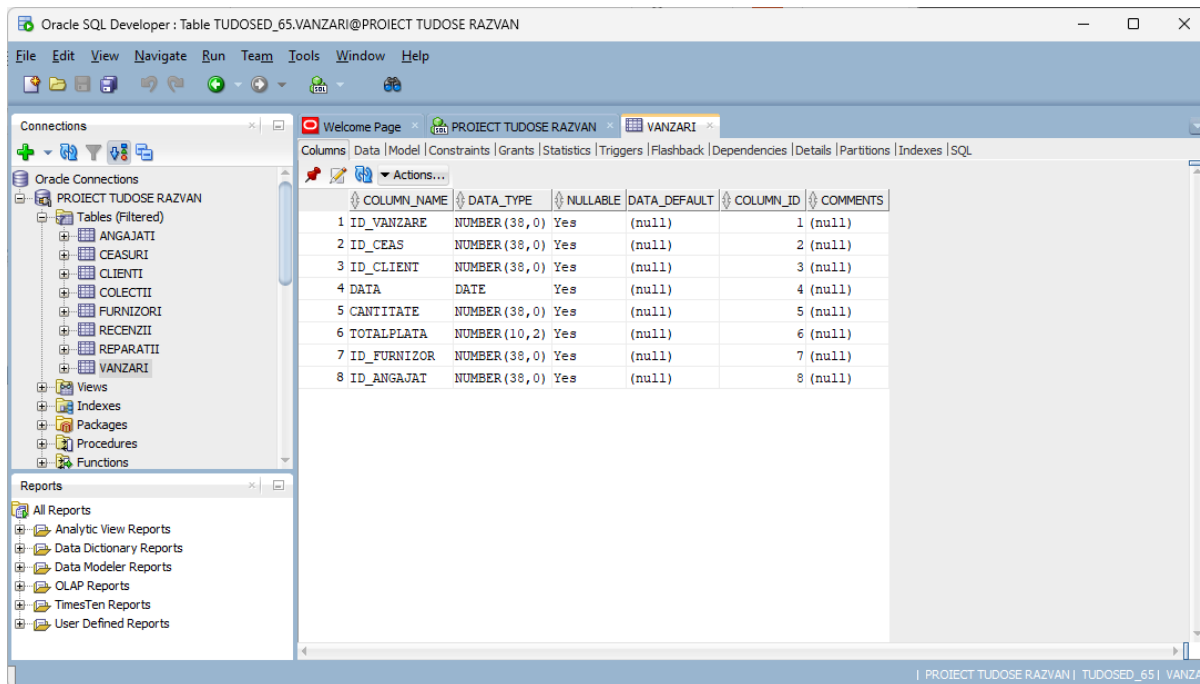
PROJECT TUDOSE RAZVAN | TUDOSD_65 | REPARAT

Oracle SQL Developer : Table TUDOSD_65.REPARATII@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_REPARATIE | ID_CEAS | DATAINCEPUT | DATASFARSIT | DESCRIERE | COST |
|--------------|---------|-------------|-------------|-------------------|------|
| 1 | 1 | 2 15-FEB-23 | 20-FEB-23 | Inlocuire baterie | 50 |
| 2 | 2 | 3 10-MAR-23 | 14-MAR-23 | Reparare mecanism | 200 |
| 3 | 3 | 4 25-MAY-23 | 28-MAY-23 | Reparare mecanism | 300 |

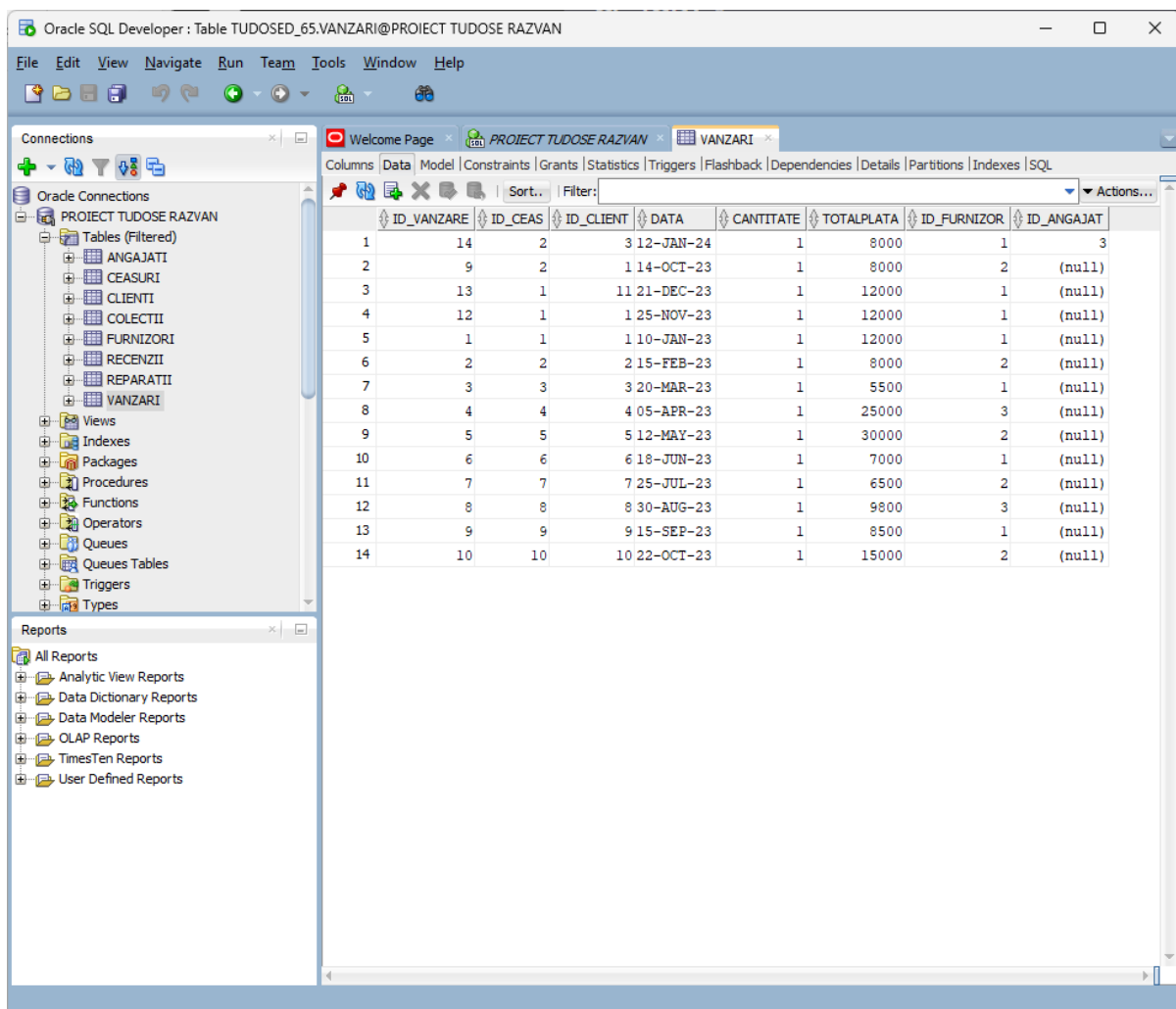
Tabela Vanzari cu datele aferente:



Oracle SQL Developer : Table TUDOSD_65.VANZARI@PROIECT TUDOSE RAZVAN

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| Column Name | Data Type | Nullable | Data Default | Column ID | Comments |
|---------------|----------------|----------|--------------|-----------|----------|
| 1 ID_VANZARE | NUMBER (38, 0) | Yes | (null) | 1 (null) | |
| 2 ID_CEAS | NUMBER (38, 0) | Yes | (null) | 2 (null) | |
| 3 ID_CLIENT | NUMBER (38, 0) | Yes | (null) | 3 (null) | |
| 4 DATA | DATE | Yes | (null) | 4 (null) | |
| 5 CANTITATE | NUMBER (38, 0) | Yes | (null) | 5 (null) | |
| 6 TOTALPLATA | NUMBER (10, 2) | Yes | (null) | 6 (null) | |
| 7 ID_FURNIZOR | NUMBER (38, 0) | Yes | (null) | 7 (null) | |
| 8 ID_ANGAJAT | NUMBER (38, 0) | Yes | (null) | 8 (null) | |



Oracle SQL Developer : Table TUDOSD_65.VANZARI@PROIECT TUDOSE RAZVAN

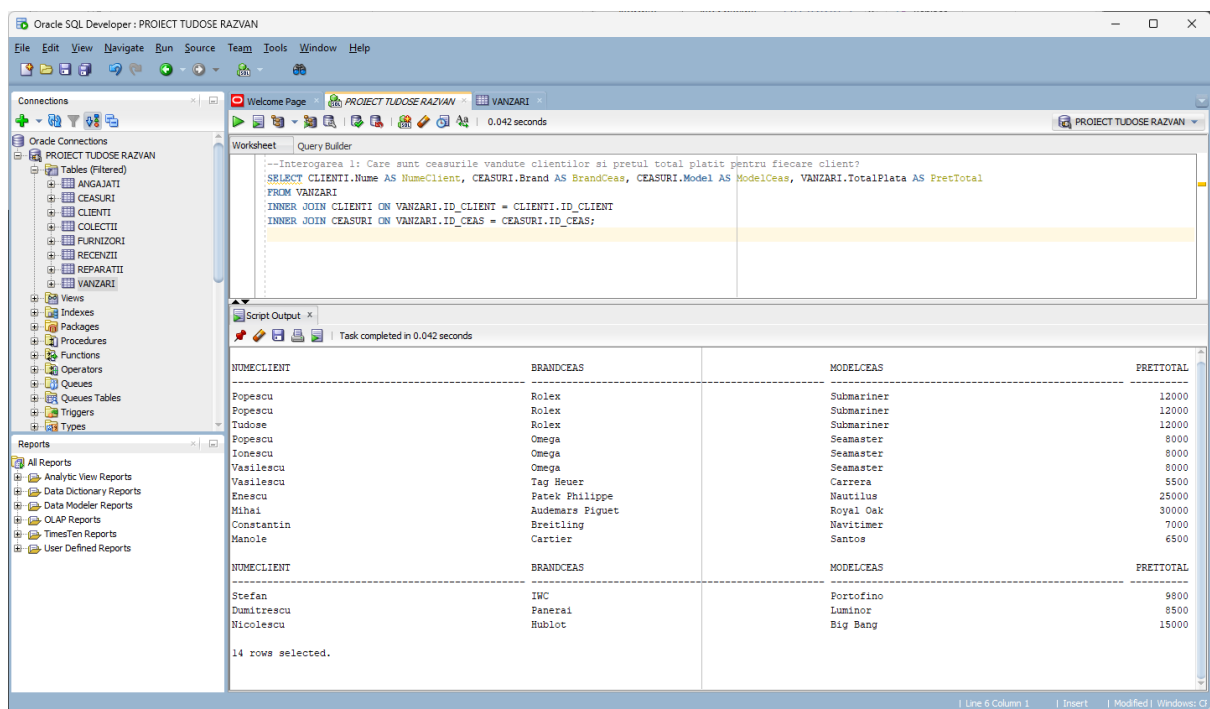
Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

| ID_VANZARE | ID_CEAS | ID_CLIENT | DATA | CANTITATE | TOTALPLATA | ID_FURNIZOR | ID_ANGAJAT |
|------------|---------|-----------|--------------|-----------|------------|-------------|------------|
| 1 | 14 | 2 | 3 12-JAN-24 | 1 | 8000 | 1 | 3 |
| 2 | 9 | 2 | 1 14-OCT-23 | 1 | 8000 | 2 | (null) |
| 3 | 13 | 1 | 11 21-DEC-23 | 1 | 12000 | 1 | (null) |
| 4 | 12 | 1 | 1 25-NOV-23 | 1 | 12000 | 1 | (null) |
| 5 | 1 | 1 | 1 10-JAN-23 | 1 | 12000 | 1 | (null) |
| 6 | 2 | 2 | 2 15-FEB-23 | 1 | 8000 | 2 | (null) |
| 7 | 3 | 3 | 3 20-MAR-23 | 1 | 5500 | 1 | (null) |
| 8 | 4 | 4 | 4 05-APR-23 | 1 | 25000 | 3 | (null) |
| 9 | 5 | 5 | 5 12-MAY-23 | 1 | 30000 | 2 | (null) |
| 10 | 6 | 6 | 6 18-JUN-23 | 1 | 7000 | 1 | (null) |
| 11 | 7 | 7 | 7 25-JUL-23 | 1 | 6500 | 2 | (null) |
| 12 | 8 | 8 | 8 30-AUG-23 | 1 | 9800 | 3 | (null) |
| 13 | 9 | 9 | 9 15-SEP-23 | 1 | 8500 | 1 | (null) |
| 14 | 10 | 10 | 10 22-OCT-23 | 1 | 15000 | 2 | (null) |

Interogari (SELECT):

--Interogarea 1: Care sunt ceasurile vandute clientilor si pretul total platit pentru fiecare client?

```
SELECT CLIENTI.Nume AS NumeClient, CEASURI.Brand AS BrandCeaș,
CEASURI.Model AS ModelCeaș, VANZARI.TotalPlata AS PretTotal
FROM VANZARI
INNER JOIN CLIENTI ON VANZARI.ID_CLIENT = CLIENTI.ID_CLIENT
INNER JOIN CEASURI ON VANZARI.ID_CEAS = CEASURI.ID_CEAS;
```



The screenshot shows the Oracle SQL Developer interface. The 'Query Builder' window displays the following SQL query:

```
--Interogarea 1: Care sunt ceasurile vandute clientilor si pretul total platit pentru fiecare client?
SELECT CLIENTI.Nume AS NumeClient, CEASURI.Brand AS BrandCeaș, CEASURI.Model AS ModelCeaș, VANZARI.TotalPlata AS PretTotal
FROM VANZARI
INNER JOIN CLIENTI ON VANZARI.ID_CLIENT = CLIENTI.ID_CLIENT
INNER JOIN CEASURI ON VANZARI.ID_CEAS = CEASURI.ID_CEAS;
```

The 'Script Output' window shows the results of the query, which are 14 rows. The results are displayed in a table with the following columns: NUMECLIENT, BRANDCEAS, MODELCEAS, and PRETTOTAL.

| NUMECLIENT | BRANDCEAS | MODELCEAS | PRETTOTAL |
|------------|-----------------|------------|-----------|
| Popescu | Rolex | Submariner | 12000 |
| Popescu | Rolex | Submariner | 12000 |
| Tudose | Rolex | Submariner | 12000 |
| Popescu | Omega | Seamaster | 8000 |
| Ionescu | Omega | Seamaster | 8000 |
| Vasilescu | Tag Heuer | Carrera | 5500 |
| Enescu | Patek Philippe | Nautilus | 25000 |
| Mihai | Audemars Piguet | Royal Oak | 30000 |
| Constantin | Breitling | Navitimer | 7000 |
| Manole | Cartier | Santos | 6500 |
| Stefan | IWC | Portofino | 9800 |
| Dumitrescu | Panerai | Luminor | 8500 |
| Nicolescu | Hublot | Big Bang | 15000 |

14 rows selected.

--Interogare 2: Care este cea mai scumpa colectie de ceasuri?

```
SELECT COLECTII.Nume AS Colectie, MAX(CEASURI.Pret) AS PretMaxim
FROM Ceasuri
INNER JOIN COLECTII ON CEASURI.ID_COLECTIE = COLECTII.ID_COLECTIE
GROUP BY COLECTII.NUME;
```

Tudose Dragos Razvan Alexandru

Grupa E-1065

Oracle SQL Developer: PROIECT TUDOSE RAZVAN

Connections: PROIECT TUDOSE RAZVAN

Tables (Filtered): ANGAJATI, CEASURI, CLIENTI, COLECTII, FURNIZORI, RECENTZII, REPARATII, VANZARI

Views: Views

Indexes: Indexes

Reports: All Reports, Analytic View Reports, Data Dictionary Reports, Data Modeler Reports, OLAP Reports, TimesTen Reports, User Defined Reports

Worksheet: Query Builder

```
--Interogare 2: Care este cea mai scumpa colectie de ceasuri?
SELECT COLECTII.Nume AS Colectie, MAX(CEASURI.Pret) AS PretMaxim
FROM Ceasuri
INNER JOIN COLECTII ON CEASURI.ID_COLECTIE = COLECTII.ID_COLECTIE
GROUP BY COLECTII.NUME;
```

Script Output: Task completed in 0.029 seconds

| COLECTIE | PRETMAXIM |
|--------------------|-----------|
| Modern Design | 25000 |
| Elegant Timepieces | 8000 |
| Sporty Collection | 30000 |

Line 6 Column 1 | Insert | Modified | Windows: CJ

--Interogare 3: Care sunt colectiile de ceasuri care au un pret mediu mai mare de 10000 de dolari?

```
SELECT C.Nume AS NumeColectie, AVG(E.Pret) AS PretMediu
FROM COLECTII C
INNER JOIN Ceasuri E ON C.ID_Colectie = E.ID_Colectie
GROUP BY C.NUME
HAVING AVG(E.Pret) > 10000;
```

Oracle SQL Developer: PROIECT TUDOSE RAZVAN

Connections: PROIECT TUDOSE RAZVAN

Tables (Filtered): ANGAJATI, CEASURI, CLIENTI, COLECTII, FURNIZORI, RECENTZII, REPARATII, VANZARI

Views: Views

Reports: All Reports, Analytic View Reports, Data Dictionary Reports, Data Modeler Reports, OLAP Reports, TimesTen Reports, User Defined Reports

Worksheet: Query Builder

```
--Interogare 3: Care sunt colectiile de ceasuri care au un pret mediu mai mare de 10000 de dolari?
SELECT C.Nume AS NumeColectie, AVG(E.Pret) AS PretMediu
FROM COLECTII C
INNER JOIN Ceasuri E ON C.ID_Colectie = E.ID_Colectie
GROUP BY C.NUME
HAVING AVG(E.Pret) > 10000;
```

Script Output: Task completed in 0.031 seconds

| NUMECOLECTIE | PRETMEDIU |
|-------------------|-----------|
| Modern Design | 15125 |
| Sporty Collection | 15100 |

Line 6 Column 28 | Insert | Modified | Windows: CJ

Tudose Dragos Razvan Alexandru

Grupa E-1065

--Interogare 4: Care este colectia cu cele mai multe vanzari?

```

SELECT
    C.Nume AS NumeColectie,
    COUNT(*) AS NumarVanzari
FROM
    CEASURI CE
JOIN
    COLECTII C ON CE.ID_Collectie = C.ID_Collectie
JOIN
    VANZARI V ON CE.ID_Ceas = V.ID_Ceas
GROUP BY
    C.NUME
ORDER BY
    NumarVanzari DESC;

```

The screenshot shows the Oracle SQL Developer interface. The main window displays the query from the previous block. The left pane shows the database schema with tables like ANGAJATI, CEASURI, CLIENTI, COLECTII, FURNIZORI, RECENZII, REPARATII, and VANZARI. The bottom pane shows the 'Script Output' window with the following table:

| NUMECOLECTIE | NUMARVANZARI |
|--------------------|--------------|
| Modern Design | 6 |
| Elegant Timepieces | 5 |
| Sporty Collection | 3 |

Tudose Dragos Razvan Alexandru

Grupa E-1065

Interogari (CONNECT BY, PRIOR, LEVEL):

--Interogare 5: Afiseaza angatii aflati in subordinea managerului de magazin

```
SELECT A.ID_Angajat, A.Nume, A.Prenume, A.Functie, A.ID_Manager
```

```
FROM Angajati A
```

```
START WITH A.ID_Angajat = 1
```

```
CONNECT BY PRIOR A.ID_Angajat = A.ID_Manager;
```

The screenshot shows the Oracle SQL Developer interface. The main window displays a query in the Worksheet tab:

```
--Interogare 5: Afiseaza angatii aflati in subordinea managerului de magazin
SELECT A.ID_Angajat, A.Nume, A.Prenume, A.Functie, A.ID_Manager
FROM Angajati A
START WITH A.ID_Angajat = 1
CONNECT BY PRIOR A.ID_Angajat = A.ID_Manager;
```

The Results window at the bottom shows the output of the query, which is a table with 5 columns: ID_ANGAJAT, NUME, PRENUME, FUNCTIE, and ID_MANAGER. The table contains 7 rows of data, representing the hierarchy of employees under the manager with ID 1.

| ID_ANGAJAT | NUME | PRENUME | FUNCTIE | ID_MANAGER |
|------------|-----------|---------|-------------------|------------|
| 1 | Radulescu | Andrei | Manager magazin | |
| 2 | Alexe | Bogdan | Tehnician service | 1 |
| 7 | Tudor | Andrei | Tehnician Junior | 2 |
| 3 | Popa | Andreea | Casier Sef | 1 |
| 4 | Stan | Anca | Casier | 3 |
| 5 | Mocanu | Antonia | Casier | 3 |
| 6 | Paraschiv | Liliana | Femeie de servici | 3 |

7 rows selected.

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--Interogare 6: Afisati organigrama angajatilor companiei

```
SELECT LPAD(' ', 2 * LEVEL - 1) || A.Nume || ' ' || A.Prenume AS Angajat,  
       A.Functie  
FROM Angajati A  
START WITH A.ID_Angajat = 1  
CONNECT BY PRIOR A.ID_Angajat = A.ID_Manager  
ORDER SIBLINGS BY A.ID_Angajat;
```

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```
--Interogare 6: Afisati organigrama angajatilor companiei
SELECT LPAD(' ', 2 * LEVEL - 1) || A.Nume || ' ' || A.Prenume AS Angajat,  
       A.Functie  
FROM Angajati A  
START WITH A.ID_Angajat = 1  
CONNECT BY PRIOR A.ID_Angajat = A.ID_Manager  
ORDER SIBLINGS BY A.ID_Angajat;
```

Script Output

Task completed in 0.137 seconds

| ANGAJAT | FUNCTIE |
|-------------------|--------------------|
| Radulescu Andrei | Manager magazin |
| Alexe Bogdan | Tehnician service |
| Tudor Andrei | Tehnician Junior |
| Popa Andreea | Casier Sef |
| Stan Anca | Casier |
| Mocanu Antonia | Casier |
| Paraschiv Liliana | Femeie de servicii |

7 rows selected.

Line 8 Column 1 | Insert | Modified | Windows: CF

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Grupa E-1065

Gestiunea altor obiecte ale bazei de date (tabele virtuale, indcesi, sinonime, secvente):

--Interogare 7: --Crearea unui view pentru a vedea toate comenzile pe anul 2023

```
CREATE VIEW ViewVanzari2023 AS
```

```
SELECT id_vanzare, data, totalplata
```

```
FROM Vanzari
```

```
WHERE EXTRACT(YEAR FROM data) = 2023;
```

--Afisarea comenzilor pe anul 2023

```
SELECT * FROM ViewVanzari2023;
```

The screenshot shows the Oracle SQL Developer interface for the 'PROIECT TUDOSE RAZVAN' database. The 'Connections' pane on the left shows the database structure, including tables like ANGAJATI, CEASURI, CLIENTI, COLECTII, FURNIZORI, RECENTII, REPARATII, and VANZARI. The 'Worksheet' pane displays the SQL script for creating and querying the 'ViewVanzari2023' view. The 'Script Output' pane shows the execution results, including a table of sales data for 2023 and a confirmation of 13 rows selected.

SQL Script:

```
--Crearea unui view pentru a vedea toate comenzile pe anul 2023
CREATE VIEW ViewVanzari2023 AS
SELECT id_vanzare, data, totalplata
FROM Vanzari
WHERE EXTRACT(YEAR FROM data) = 2023;

--Afisarea comenzilor pe anul 2023
SELECT * FROM ViewVanzari2023;
```

Execution Results:

| ID_VANZARE | DATA | TOTALPLATA |
|------------|-----------|------------|
| 9 | 14-OCT-23 | 8000 |
| 13 | 21-DEC-23 | 12000 |
| 12 | 25-NOV-23 | 12000 |
| 1 | 10-JAN-23 | 12000 |
| 2 | 15-FEB-23 | 8000 |
| 3 | 20-MAR-23 | 5500 |
| 4 | 05-APR-23 | 25000 |
| 5 | 12-MAY-23 | 30000 |
| 6 | 18-JUN-23 | 7000 |
| 7 | 25-JUL-23 | 6500 |
| 8 | 30-AUG-23 | 9800 |

13 rows selected.

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--Crearea unui index pe coloana "ID_Client"

```
CREATE INDEX IDX_ID_Client ON Vanzari(ID_Client);
```

--Interogare 8: Selecteaza toate vanzarile pentru clientii cu ID-urile intre 1 si 10

```
SELECT *
```

```
FROM Vanzari
```

```
WHERE ID_Client BETWEEN 1 AND 10
```

```
ORDER BY ID_Client ASC;
```

The screenshot displays the Oracle SQL Developer interface for a project named 'PROIECT TUDOSE RAZVAN'. The 'Connections' pane on the left shows the database structure, including tables, views, and indexes. The 'Script Output' pane at the bottom shows the execution results of the SQL queries.

The first query executed was to create an index on the 'ID_Client' column of the 'Vanzari' table:

```
--Crearea unui index pe coloana "ID_Client"
CREATE INDEX IDX_ID_Client ON Vanzari(ID_Client);
```

The second query was to select all sales for clients with IDs between 1 and 10, ordered by client ID:

```
--Selecteaza toate vanzarile pentru clientii cu ID-urile intre 1 si 10
SELECT *
FROM Vanzari
WHERE ID_Client BETWEEN 1 AND 10
ORDER BY ID_Client ASC;
```

The 'Script Output' pane shows the following results:

Index IDX_ID_CLIENT created.

| ID_VANZARE | ID_CEAS | ID_CLIENT | DATA | CANTITATE | TOTALPLATA | ID_FURNIZOR | ID_ANGAJAT |
|------------|---------|-----------|-----------|-----------|------------|-------------|------------|
| 9 | 2 | 1 | 14-OCT-23 | 1 | 8000 | 2 | |
| 12 | 1 | 1 | 25-NOV-23 | 1 | 12000 | 1 | |
| 1 | 1 | 1 | 10-JAN-23 | 1 | 12000 | 1 | |
| 2 | 2 | 2 | 15-FEB-23 | 1 | 8000 | 2 | |
| 14 | 2 | 3 | 12-JAN-24 | 1 | 8000 | 1 | 3 |
| 3 | 3 | 3 | 20-MAR-23 | 1 | 5500 | 1 | |
| 4 | 4 | 4 | 05-APR-23 | 1 | 25000 | 3 | |
| 5 | 5 | 5 | 12-MAY-23 | 1 | 30000 | 2 | |
| 6 | 6 | 6 | 18-JUN-23 | 1 | 7000 | 1 | |
| 7 | 7 | 7 | 25-JUL-23 | 1 | 6500 | 2 | |
| 8 | 8 | 8 | 30-AUG-23 | 1 | 9800 | 3 | |
| 9 | 9 | 9 | 15-SEP-23 | 1 | 8500 | 1 | |
| 10 | 10 | 10 | 22-OCT-23 | 1 | 15000 | 2 | |

13 rows selected.

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Grupa E-1065

--Creare secventa pentru asigurarea unicitatii cheii primare in tabela Vanzari

```
CREATE SEQUENCE Seq_ID_Vanzari
```

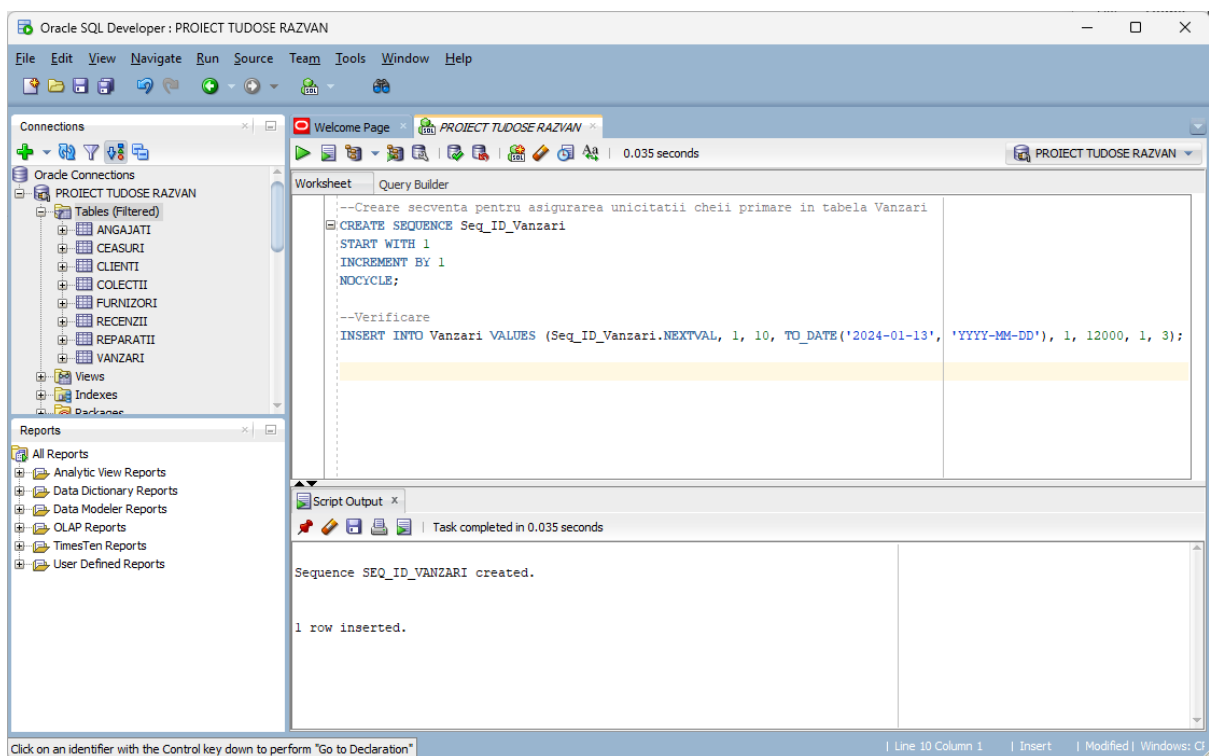
```
START WITH 1
```

```
INCREMENT BY 1
```

```
NOCYCLE;
```

--Verificare

```
INSERT INTO Vanzari VALUES (Seq_ID_Vanzari.NEXTVAL, 1, 10, TO_DATE('2024-01-13', 'YYYY-MM-DD'), 1, 12000, 1, 3);
```



--Creare sinonim pentru angajati

```
CREATE SYNONYM Ang FOR Angajati;
```

--Creare sinonim pentru Vanzari

```
CREATE SYNONYM Vnz FOR Vanzari;
```

--Vizualizare sinonime

```
SELECT * FROM USER_SYNONYMS;
```

--Stergere sinonim

```
DROP SYNONYM Vnz;
```

--Vizualizare sinonime

```
SELECT * FROM USER_SYNONYMS;
```

The screenshot displays the Oracle SQL Developer interface for a project named 'PROIECT TUDOSE RAZVAN'. The 'Script Output' window at the bottom shows the execution results of the SQL script. The script contains the following commands:

```
--Creare sinonim pentru angajati  
CREATE SYNONYM Ang FOR Angajati;  
  
--Creare sinonim pentru Vanzari  
CREATE SYNONYM Vnz FOR Vanzari;  
  
--Vizualizare sinonime  
SELECT * FROM USER_SYNONYMS;  
  
--Stergere sinonim  
DROP SYNONYM Vnz;  
  
--Vizualizare sinonime  
SELECT * FROM USER_SYNONYMS;
```

The 'Script Output' window shows the following results:

```
Synonym ANG created.  
  
Synonym VNZ created.  
  
SYNONYM_NAME      TABLE_OWNER  
-----  
ANG                TUDOSE_65  
VNZ                TUDOSE_65  
  
Synonym VNZ dropped.  
  
SYNONYM_NAME      TABLE_OWNER  
-----  
ANG                TUDOSE_65
```

--Actualizare stoc ceasuri atunci cand o vanzare este realizata

--Creare trigger care sa se activeze dupa inserarea unei noi vanzari

CREATE OR REPLACE TRIGGER ActualizareStocCeasuri

AFTER INSERT ON Vanzari

FOR EACH ROW

BEGIN

--Actualizez stocul in tabela Ceasuri

UPDATE Ceasuri

SET Stoc = Stoc - :NEW.Cantitate --Scad cantitatea vanduta din stoc

WHERE ID_Ceas = :NEW.ID_Ceas; --ID-ul ceasului vandut

END;

/

--Verificare functionalitate

INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata,
ID_Furnizor, ID_Angajat)

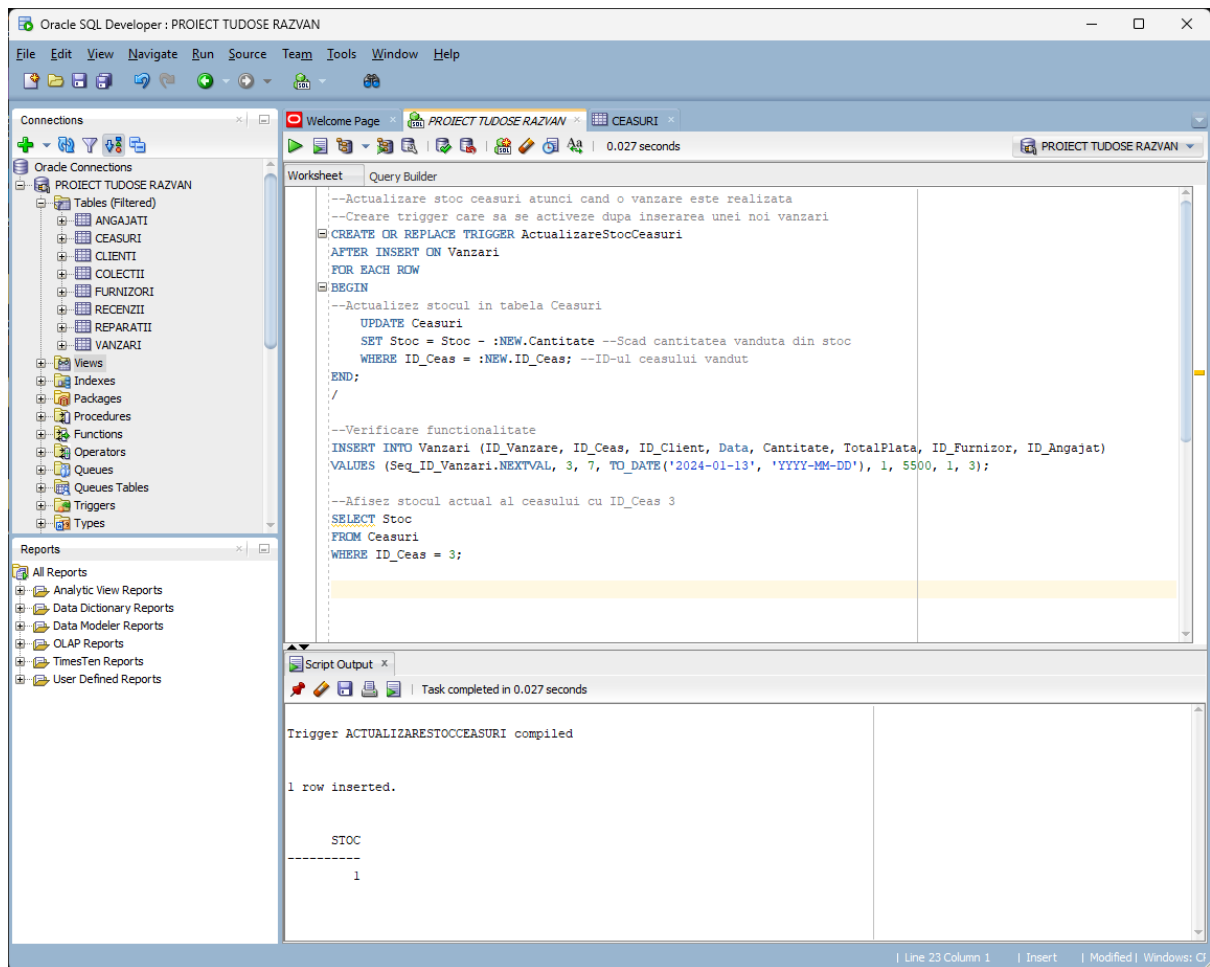
VALUES (Seq_ID_Vanzari.NEXTVAL, 3, 7, TO_DATE('2024-01-13', 'YYYY-MM-DD'), 1,
5500, 1, 3);

--Afisez stocul actual al ceasului cu ID_Ceas 3

SELECT Stoc

FROM Ceasuri

WHERE ID_Ceas = 1;



--Creare secventa pentru ID_Client

```
CREATE SEQUENCE Seq_ID_Client
START WITH 1
INCREMENT BY 1
NOCACHE
NOCYCLE;
```

--Verificare functionalitate cu secventa pentru ID_Client

```
INSERT INTO Vanzari (ID_Vanzare, ID_Ceas, ID_Client, Data, Cantitate, TotalPlata,
ID_Furnizor, ID_Angajat)
VALUES (Seq_ID_Vanzari.NEXTVAL, 3, Seq_ID_Client.NEXTVAL, TO_DATE('2024-01-
13', 'YYYY-MM-DD'), 1, 5500, 1, 3);
```

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--Afisez stocul actual al ceasului cu ID_Ceas 3

SELECT Stoc

FROM Ceasuri

WHERE ID_Ceas = 3;

