Задание ПБД

Да се проектира и реализира база от данни за БОЛНИЦА, която да съхранява следната информация:

 • Пациент име, ЕГН,

• Лекар - специалност, име, телефон;

• Лечение пациент, лекуващ лекар, дата, продължителност, диагноза

Правила:

• Всеки пациент не може да има повече от едно лечение в едно и също време,

• Всеки лекар има една специалност.

Базата данни трябва да е НОРМАЛИЗИРАНА и да позволява:

1. Въвеждане и корекция на данни

2. Търсене по: пациент, лекар, диагноза

3. Справки за:

• Лечения на пациент, подредени по дата,

• Лечения за лекар, подредени по диагноза,

• Всички лечения за период.

Документацията към реализирания проект трябва да съдържа:

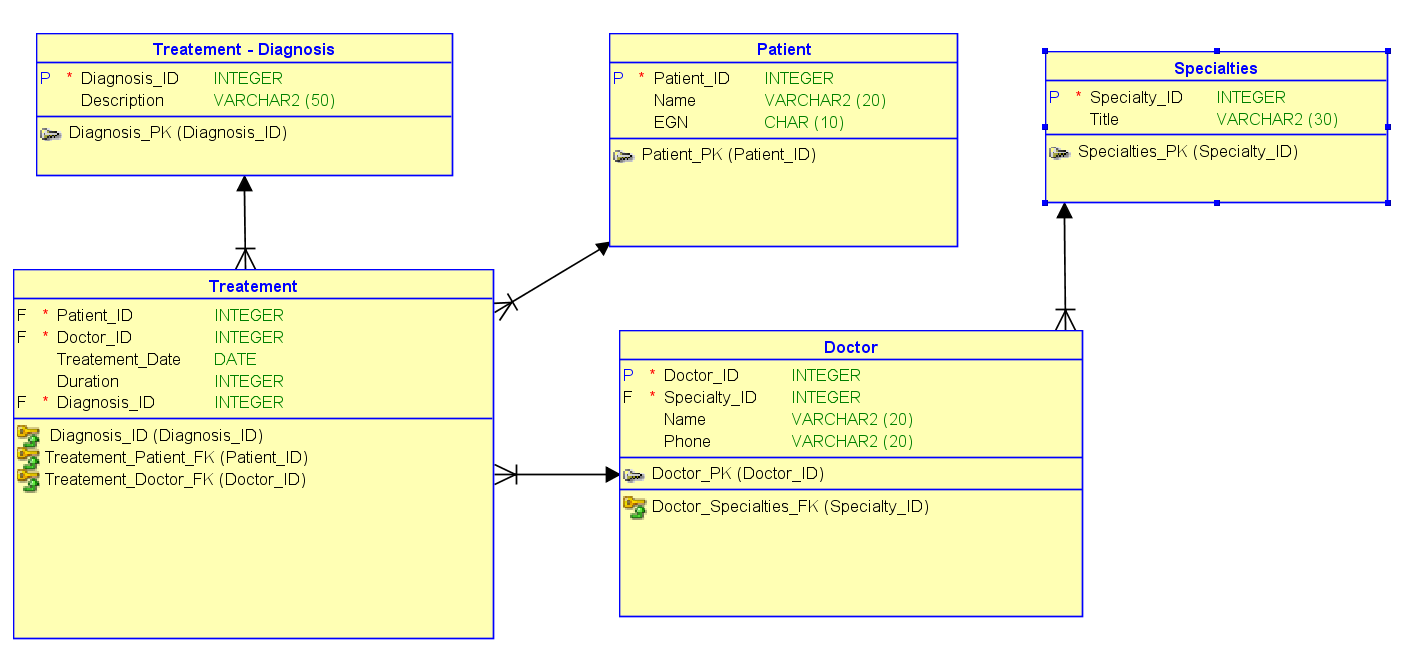
• Задание

• Модели (Oracle Data Modeler)

• SQL команди - DDL, DML

• PL/SQL процедури/тригери/курсори

Модели (Oracle Data Modeler)



Database\_Root/

│

├── Patient/

│ ├── Patient\_ID (INT, Primary Key)

│ ├── Name (VARCHAR(20), NOT NULL)

│ ├── EGN (CHAR(10), UNIQUE, NOT NULL)

│

├── Specialties/

│ ├── Specialty\_ID (INT, Primary Key)

│ ├── Title (VARCHAR2(30), NOT NULL)

│

├── Doctor/

│ ├── Doctor\_ID (INT, Primary Key)

│ ├── Specialty\_ID (INT, Foreign Key -> Specialties.Specialty\_ID)

│ ├── Name (VARCHAR(20), NOT NULL)

│ ├── Phone (VARCHAR(20))

│

├── Treatment\_Diagnosis/

│ ├── Diagnosis\_ID (INT, Primary Key)

│ ├── Description (VARCHAR(60), NOT NULL)

│

├── Treatment/

│ ├── Treatment\_ID (INT, Primary Key)

│ ├── Patient\_ID (INT, Foreign Key -> Patient.Patient\_ID)

│ ├── Doctor\_ID (INT, Foreign Key -> Doctor.Doctor\_ID)

│ ├── Treatment\_Date (DATE, NOT NULL)

│ ├── Duration (INT)

│ ├── Diagnosis\_ID (INT, Foreign Key -> Treatment\_Diagnosis.Diagnosis\_ID)

SQL команди - DDL, DML

* DDL

CREATE TABLE Patient (

Patient\_ID INT PRIMARY KEY,

Name VARCHAR(20) NOT NULL,

EGN CHAR(10) UNIQUE NOT NULL

);

CREATE TABLE Specialties (

Specialty\_ID INT PRIMARY KEY,

Title VARCHAR2(30) NOT NULL

);

CREATE TABLE Doctor (

Doctor\_ID INT PRIMARY KEY,

Specialty\_ID INT,

Name VARCHAR(20) NOT NULL,

Phone VARCHAR(20),

FOREIGN KEY (Specialty\_ID) REFERENCES Specialties(Specialty\_ID)

);

CREATE TABLE Treatment\_Diagnosis (

Diagnosis\_ID INT PRIMARY KEY,

Description VARCHAR(60) NOT NULL

);

CREATE TABLE Treatment (

Treatment\_ID INT PRIMARY KEY,

Patient\_ID INT,

Doctor\_ID INT,

Treatment\_Date DATE NOT NULL,

Duration INT,

Diagnosis\_ID INT,

FOREIGN KEY (Patient\_ID) REFERENCES Patient(Patient\_ID),

FOREIGN KEY (Doctor\_ID) REFERENCES Doctor(Doctor\_ID),

FOREIGN KEY (Diagnosis\_ID) REFERENCES Treatment\_Diagnosis(Diagnosis\_ID)

);

* DML команди - INSERT, UPDATE , DELETE

**Пациенти:**

1. Patient1 (EGN: 100000001)
2. Patient2 (EGN: 100000002)
3. Patient3 (EGN: 100000003)
4. Patient4 (EGN: 100000004)
5. Patient5 (EGN: 100000005)
6. Patient6 (EGN: 100000006)
7. Patient7 (EGN: 100000007)
8. Patient8 (EGN: 100000008)
9. Patient9 (EGN: 100000009)
10. Patient10 (EGN: 1000000010)
11. Patient11 (EGN: 100000011)
12. Patient12 (EGN: 100000012)
13. Patient13 (EGN: 100000013)
14. Patient14 (EGN: 100000014)
15. Patient15 (EGN: 100000015)
16. Patient16 (EGN: 100000016)
17. Patient17 (EGN: 100000017)
18. Patient18 (EGN: 100000018)
19. Patient19 (EGN: 100000019)
20. Patient20 (EGN: 1000000020)

**Специалности:**

1. Specialty1
2. Specialty2
3. Specialty3
4. Specialty4
5. Specialty5
6. Specialty6
7. Specialty7
8. Specialty8
9. Specialty9
10. Specialty10
11. Specialty11
12. Specialty12
13. Specialty13
14. Specialty14
15. Specialty15
16. Specialty16
17. Specialty17
18. Specialty18
19. Specialty19

**Доктори:**

1. Doctor1 (Специалност: Specialty1, Телефон: 0880000001)
2. Doctor2 (Специалност: Specialty2, Телефон: 0880000002)
3. Doctor3 (Специалност: Specialty3, Телефон: 0880000003)
4. Doctor4 (Специалност: Specialty4, Телефон: 0880000004)
5. Doctor5 (Специалност: Specialty5, Телефон: 0880000005)
6. Doctor6 (Специалност: Specialty6, Телефон: 0880000006)
7. Doctor7 (Специалност: Specialty7, Телефон: 0880000007)
8. Doctor8 (Специалност: Specialty8, Телефон: 0880000008)
9. Doctor9 (Специалност: Specialty9, Телефон: 0880000009)
10. Doctor10 (Специалност: Specialty10, Телефон: 0880000010)
11. Doctor11 (Специалност: Specialty11, Телефон: 0880000011)
12. Doctor12 (Специалност: Specialty12, Телефон: 0880000012)
13. Doctor13 (Специалност: Specialty13, Телефон: 0880000013)
14. Doctor14 (Специалност: Specialty14, Телефон: 0880000014)
15. Doctor15 (Специалност: Specialty15, Телефон: 0880000015)
16. Doctor16 (Специалност: Specialty16, Телефон: 0880000016)
17. Doctor17 (Специалност: Specialty17, Телефон: 0880000017)
18. Doctor18 (Специалност: Specialty18, Телефон: 0880000018)
19. Doctor19 (Специалност: Specialty19, Телефон: 0880000019)
20. Doctor20 (Специалност: Specialty20, Телефон: 0880000020)

**Диагнози:**

1. Diagnosis1
2. Diagnosis2
3. Diagnosis3
4. Diagnosis4
5. Diagnosis5
6. Diagnosis6
7. Diagnosis7
8. Diagnosis8
9. Diagnosis9
10. Diagnosis10
11. Diagnosis11
12. Diagnosis12
13. Diagnosis13
14. Diagnosis14
15. Diagnosis15
16. Diagnosis16
17. Diagnosis17
18. Diagnosis18
19. Diagnosis19
20. Diagnosis20

**Лечения:**

1. Patient1 е лекуван от Doctor1 на 2023-01-01 за Diagnosis1 (30 дни).
2. Patient2 е лекуван от Doctor2 на 2023-02-01 за Diagnosis2 (15 дни).
3. Patient3 е лекуван от Doctor3 на 2023-03-01 за Diagnosis3 (20 дни).
4. Patient4 е лекуван от Doctor4 на 2023-04-01 за Diagnosis4 (10 дни).
5. Patient5 е лекуван от Doctor5 на 2023-05-01 за Diagnosis5 (25 дни).
6. Patient6 е лекуван от Doctor6 на 2023-06-01 за Diagnosis6 (18 дни).
7. Patient7 е лекуван от Doctor7 на 2023-07-01 за Diagnosis7 (15 дни).
8. Patient8 е лекуван от Doctor8 на 2023-08-01 за Diagnosis8 (20 дни).
9. Patient9 е лекуван от Doctor9 на 2023-09-01 за Diagnosis9 (10 дни).
10. Patient10 е лекуван от Doctor10 на 2023-10-01 за Diagnosis10 (25 дни).
11. Patient11 е лекуван от Doctor11 на 2023-11-01 за Diagnosis11 (30 дни).
12. Patient12 е лекуван от Doctor12 на 2023-12-01 за Diagnosis12 (15 дни).
13. Patient13 е лекуван от Doctor13 на 2023-11-01 за Diagnosis13 (20 дни).
14. Patient14 е лекуван от Doctor14 на 2023-10-01 за Diagnosis14 (10 дни).
15. Patient15 е лекуван от Doctor15 на 2023-09-01 за Diagnosis15 (25 дни).
16. Patient16 е лекуван от Doctor16 на 2023-08-01 за Diagnosis16 (18 дни).
17. Patient17 е лекуван от Doctor17 на 2023-07-01 за Diagnosis17 (15 дни).
18. Patient18 е лекуван от Doctor18 на 2023-06-01 за Diagnosis18 (20 дни).
19. Patient19 е лекуван от Doctor19 на 2023-05-01 за Diagnosis19 (10 дни).
20. Patient20 е лекуван от Doctor20 на 2023-04-01 за Diagnosis20 (25 дни).
21. Patient1 е лекуван от Doctor2 на 2023-02-01 за Diagnosis2 (30 дни).
22. Patient1 е лекуван от Doctor3 на 2023-03-01 за Diagnosis3 (25 дни).
23. Patient1 е лекуван от Doctor4 на 2023-04-01 за Diagnosis4 (15 дни).
24. Patient1 е лекуван от Doctor5 на 2023-05-01 за Diagnosis5 (30 дни).
25. Patient1 е лекуван от Doctor6 на 2023-06-01 за Diagnosis6 (20 дни).
26. Patient1 е лекуван от Doctor7 на 2023-07-01 за Diagnosis7 (18 дни).
27. Patient1 е лекуван от Doctor8 на 2023-08-01 за Diagnosis8 (25 дни).
28. Patient2 е лекуван от Doctor9 на 2023-02-15 за Diagnosis9 (14 дни).  
    ...

* INSERT

--DATA----------------------------------------------------------------------------------------------------------------------

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (1, 'Patient1', '100000001');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (2, 'Patient2', '100000002');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (3, 'Patient3', '100000003');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (4, 'Patient4', '100000004');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (5, 'Patient5', '100000005');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (6, 'Patient6', '100000006');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (7, 'Patient7', '100000007');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (8, 'Patient8', '100000008');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (9, 'Patient9', '100000009');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (10, 'Patient10', '1000000010');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (11, 'Patient11', '100000011');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (12, 'Patient12', '100000012');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (13, 'Patient13', '100000013');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (14, 'Patient14', '100000014');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (15, 'Patient15', '100000015');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (16, 'Patient16', '100000016');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (17, 'Patient17', '100000017');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (18, 'Patient18', '100000018');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (19, 'Patient19', '100000019');

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (20, 'Patient20', '1000000020');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (1, 'Specialty1');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (2, 'Specialty2');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (3, 'Specialty3');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (4, 'Specialty4');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (5, 'Specialty5');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (6, 'Specialty6');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (7, 'Specialty7');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (8, 'Specialty8');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (9, 'Specialty9');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (10, 'Specialty10');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (11, 'Specialty11');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (12, 'Specialty12');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (13, 'Specialty13');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (14, 'Specialty14');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (15, 'Specialty15');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (16, 'Specialty16');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (17, 'Specialty17');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (18, 'Specialty18');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (19, 'Specialty19');

INSERT INTO Specialties (Specialty\_ID, Title)

VALUES (20, 'Specialty20');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (1, 1, 'Doctor1', '0880000001');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (2, 2, 'Doctor2', '0880000002');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (3, 3, 'Doctor3', '0880000003');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (4, 4, 'Doctor4', '0880000004');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (5, 5, 'Doctor5', '0880000005');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (6, 6, 'Doctor6', '0880000006');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (7, 7, 'Doctor7', '0880000007');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (8, 8, 'Doctor8', '0880000008');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (9, 9, 'Doctor9', '0880000009');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (10, 10, 'Doctor10', '0880000010');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (11, 11, 'Doctor11', '0880000011');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (12, 12, 'Doctor12', '0880000012');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (13, 13, 'Doctor13', '0880000013');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (14, 14, 'Doctor14', '0880000014');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (15, 15, 'Doctor15', '0880000015');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (16, 16, 'Doctor16', '0880000016');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (17, 17, 'Doctor17', '0880000017');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (18, 18, 'Doctor18', '0880000018');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (19, 19, 'Doctor19', '0880000019');

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (20, 20, 'Doctor20', '0880000020');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (1, 'Diagnosis1');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (2, 'Diagnosis2');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (3, 'Diagnosis3');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (4, 'Diagnosis4');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (5, 'Diagnosis5');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (6, 'Diagnosis6');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (7, 'Diagnosis7');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (8, 'Diagnosis8');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (9, 'Diagnosis9');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (10, 'Diagnosis10');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (11, 'Diagnosis11');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (12, 'Diagnosis12');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (13, 'Diagnosis13');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (14, 'Diagnosis14');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (15, 'Diagnosis15');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (16, 'Diagnosis16');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (17, 'Diagnosis17');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (18, 'Diagnosis18');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (19, 'Diagnosis19');

INSERT INTO Treatment\_Diagnosis (Diagnosis\_ID, Description)

VALUES (20, 'Diagnosis20');

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (1, 1, 1, TO\_DATE('2023-01-01', 'YYYY-MM-DD'), 30, 1);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (2, 2, 2, TO\_DATE('2023-02-01', 'YYYY-MM-DD'), 15, 2);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (3, 3, 3, TO\_DATE('2023-03-01', 'YYYY-MM-DD'), 20, 3);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (4, 4, 4, TO\_DATE('2023-04-01', 'YYYY-MM-DD'), 10, 4);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (5, 5, 5, TO\_DATE('2023-05-01', 'YYYY-MM-DD'), 25, 5);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (6, 6, 6, TO\_DATE('2023-06-01', 'YYYY-MM-DD'), 18, 6);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (7, 7, 7, TO\_DATE('2023-07-01', 'YYYY-MM-DD'), 15, 7);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (8, 8, 8, TO\_DATE('2023-08-01', 'YYYY-MM-DD'), 20, 8);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (9, 9, 9, TO\_DATE('2023-09-01', 'YYYY-MM-DD'), 10, 9);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (10, 10, 10, TO\_DATE('2023-10-01', 'YYYY-MM-DD'), 25, 10);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (11, 11, 11, TO\_DATE('2023-11-01', 'YYYY-MM-DD'), 30, 11);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (12, 12, 12, TO\_DATE('2023-12-01', 'YYYY-MM-DD'), 15, 12);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (13, 13, 13, TO\_DATE('2023-11-01', 'YYYY-MM-DD'), 20, 13);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (14, 14, 14, TO\_DATE('2023-10-01', 'YYYY-MM-DD'), 10, 14);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (15, 15, 15, TO\_DATE('2023-09-01', 'YYYY-MM-DD'), 25, 15);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (16, 16, 16, TO\_DATE('2023-08-01', 'YYYY-MM-DD'), 18, 16);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (17, 17, 17, TO\_DATE('2023-07-01', 'YYYY-MM-DD'), 15, 17);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (18, 18, 18, TO\_DATE('2023-06-01', 'YYYY-MM-DD'), 20, 18);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (19, 19, 19, TO\_DATE('2023-05-01', 'YYYY-MM-DD'), 10, 19);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (20, 20, 20, TO\_DATE('2023-04-01', 'YYYY-MM-DD'), 25, 20);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (21, 1, 2, TO\_DATE('2023-02-01', 'YYYY-MM-DD'), 30, 2);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (22, 1, 3, TO\_DATE('2023-03-01', 'YYYY-MM-DD'), 25, 3);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (23, 1, 4, TO\_DATE('2023-04-01', 'YYYY-MM-DD'), 15, 4);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (24, 1, 5, TO\_DATE('2023-05-01', 'YYYY-MM-DD'), 30, 5);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (25, 1, 6, TO\_DATE('2023-06-01', 'YYYY-MM-DD'), 20, 6);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (26, 1, 7, TO\_DATE('2023-07-01', 'YYYY-MM-DD'), 18, 7);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (27, 1, 8, TO\_DATE('2023-08-01', 'YYYY-MM-DD'), 25, 8);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (28, 2, 9, TO\_DATE('2023-02-15', 'YYYY-MM-DD'), 14, 9);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (29, 3, 10, TO\_DATE('2023-03-10', 'YYYY-MM-DD'), 21, 10);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (30, 4, 11, TO\_DATE('2023-04-20', 'YYYY-MM-DD'), 12, 11);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (31, 5, 12, TO\_DATE('2023-05-25', 'YYYY-MM-DD'), 28, 12);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (32, 6, 13, TO\_DATE('2023-06-05', 'YYYY-MM-DD'), 17, 13);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (33, 7, 1, TO\_DATE('2023-07-15', 'YYYY-MM-DD'), 22, 14);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (38, 8, 1, TO\_DATE('2023-08-25', 'YYYY-MM-DD'), 13, 15);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (39, 9, 1, TO\_DATE('2023-09-15', 'YYYY-MM-DD'), 19, 16);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (40, 10, 1, TO\_DATE('2023-10-05', 'YYYY-MM-DD'), 20, 17);

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (41, 11, 1, TO\_DATE('2023-11-10', 'YYYY-MM-DD'), 18, 18);

* UPDATE

--UPDATES-----------------------------------------------------------------------------------------------------------------------

--Patient

UPDATE Patient

SET Name = 'Patient Updated',

EGN = '222000001'

WHERE Patient\_ID = 1;

--Doctor

UPDATE Doctor

SET Name = 'Doctor1 Updated',

Phone = '0878888881',

Specialty\_ID = 4

WHERE Doctor\_ID = 1;

--Specialties

UPDATE Specialties

SET Title = 'Specialty1 Updated'

WHERE Specialty\_ID = 1;

--Treatment\_Diagnosis

UPDATE Treatment\_Diagnosis

SET Description = 'Diagnosis1'

WHERE Diagnosis\_ID = 19;

--Treatment

UPDATE Treatment

SET Treatment\_Date = TO\_DATE('2023-08-01', 'YYYY-MM-DD'),

Duration = 25,

Diagnosis\_ID = 4,

Patient\_ID = 2,

Doctor\_ID = 3

WHERE Treatment\_ID = 1;

* SELECT
* Търсене

-- po pacient

SELECT Patient.Name AS pName, Doctor.Name AS Doctor,

Treatment.Treatment\_Date AS tDate, Treatment.Duration, Treatment\_Diagnosis.Description AS DDescr

FROM Treatment

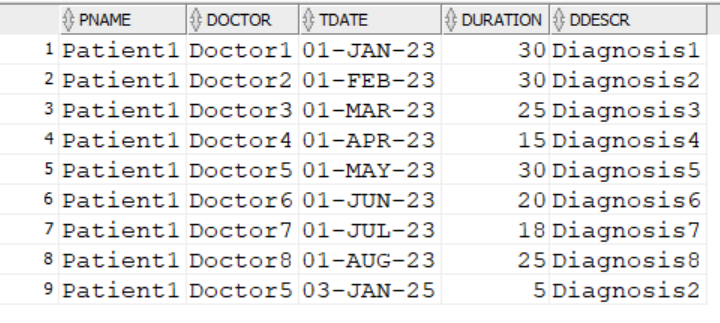
JOIN Patient ON Treatment.Patient\_ID = Patient.Patient\_ID

JOIN Doctor ON Treatment.Doctor\_ID = Doctor.Doctor\_ID

JOIN Treatment\_Diagnosis ON Treatment.Diagnosis\_ID = Treatment\_Diagnosis.Diagnosis\_ID

WHERE Patient.Name = 'Patient1'

ORDER BY Treatment.Treatment\_Date;



-- po lekar

SELECT Doctor.Name AS dName, Patient.Name AS Patient,

Treatment.Treatment\_Date AS tDate, Treatment.Duration, Treatment\_Diagnosis.Description AS DDescr

FROM Treatment

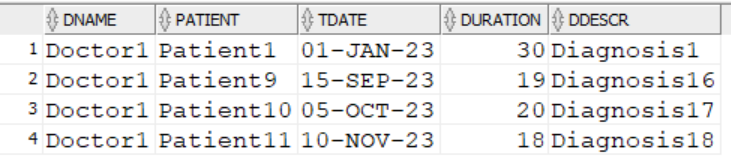
JOIN Patient ON Treatment.Patient\_ID = Patient.Patient\_ID

JOIN Doctor ON Treatment.Doctor\_ID = Doctor.Doctor\_ID

JOIN Treatment\_Diagnosis ON Treatment.Diagnosis\_ID = Treatment\_Diagnosis.Diagnosis\_ID

WHERE Doctor.Name = 'Doctor1'

ORDER BY Treatment.Treatment\_Date;



-- po diagnoza

SELECT Treatment\_Diagnosis.Description AS Diagnosis, Patient.Name AS Patient\_Name, Doctor.Name AS Doctor\_Name,

Treatment.Treatment\_Date AS tDate, Treatment.Duration

FROM Treatment

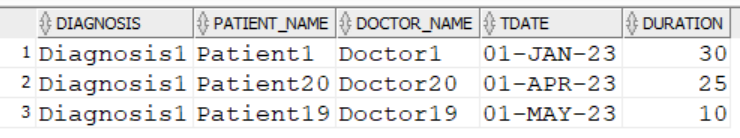
JOIN Patient ON Treatment.Patient\_ID = Patient.Patient\_ID

JOIN Doctor ON Treatment.Doctor\_ID = Doctor.Doctor\_ID

JOIN Treatment\_Diagnosis ON Treatment.Diagnosis\_ID = Treatment\_Diagnosis.Diagnosis\_ID

WHERE Treatment\_Diagnosis.Description = 'Diagnosis1'

ORDER BY Treatment.Treatment\_Date;



* Справки

-- Lechenie na pacient, podredeni po data

SELECT Treatment\_Diagnosis.Description AS Diagnosis, Patient.Name AS Patient\_Name, Doctor.Name AS Doctor\_Name,

Treatment.Duration, Treatment.Treatment\_Date

FROM Treatment

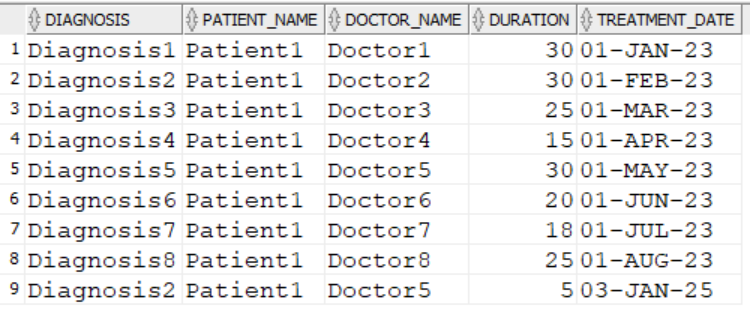
JOIN Patient ON Treatment.Patient\_ID = Patient.Patient\_ID

JOIN Doctor ON Treatment.Doctor\_ID = Doctor.Doctor\_ID

JOIN Treatment\_Diagnosis ON Treatment.Diagnosis\_ID = Treatment\_Diagnosis.Diagnosis\_ID

WHERE Patient.Name = 'Patient1'

ORDER BY Treatment.Treatment\_Date;



-- lechenie za lekar, podredeni po diagnoza

SELECT Doctor.Name AS Doctor\_Name, Patient.Name AS Patient\_Name,

Treatment\_Diagnosis.Description AS Diagnosis, Treatment.Treatment\_Date, Treatment.Duration

FROM Treatment

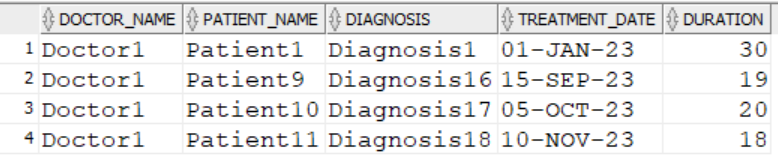
JOIN Patient ON Treatment.Patient\_ID = Patient.Patient\_ID

JOIN Doctor ON Treatment.Doctor\_ID = Doctor.Doctor\_ID

JOIN Treatment\_Diagnosis ON Treatment.Diagnosis\_ID = Treatment\_Diagnosis.Diagnosis\_ID

WHERE Doctor.Name = 'Doctor1'

ORDER BY Treatment\_Diagnosis.Description;



--Vsichki lecheniq za perioda

SELECT Patient.Name AS Patient\_Name, Doctor.Name AS Doctor\_Name,

Treatment\_Diagnosis.Description AS Diagnosis, Treatment.Treatment\_Date, Treatment.Duration

FROM Treatment

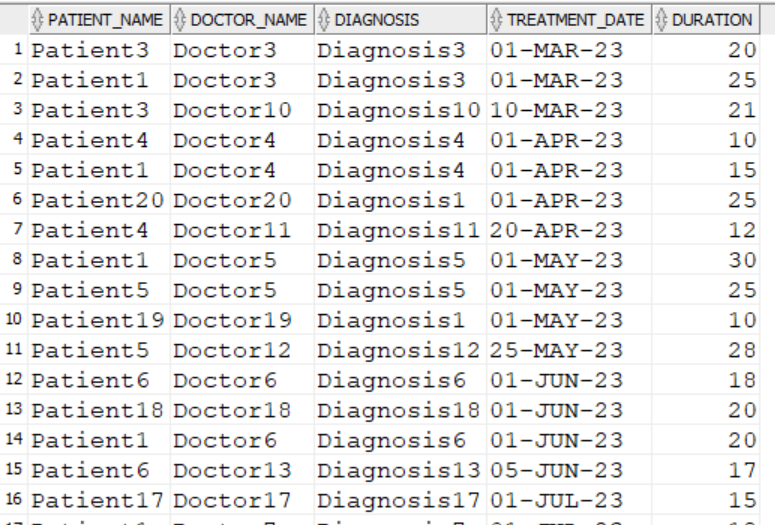
JOIN Patient ON Treatment.Patient\_ID = Patient.Patient\_ID

JOIN Doctor ON Treatment.Doctor\_ID = Doctor.Doctor\_ID

JOIN Treatment\_Diagnosis ON Treatment.Diagnosis\_ID = Treatment\_Diagnosis.Diagnosis\_ID

WHERE Treatment.Treatment\_Date BETWEEN TO\_DATE('2023-03-01', 'YYYY-MM-DD') AND TO\_DATE('2023-12-31', 'YYYY-MM-DD')

ORDER BY Treatment.Treatment\_Date;



* PL/SQL процедури/тригери/курсори
* Процедури

--PACIENT---------------------------------------------------------->

--add

CREATE OR REPLACE PROCEDURE Add\_Patient(

p\_Patient\_ID IN INT,

p\_Name IN VARCHAR,

p\_EGN IN CHAR

)

IS

BEGIN

INSERT INTO Patient (Patient\_ID, Name, EGN)

VALUES (p\_Patient\_ID, p\_Name, p\_EGN);

END;

/

--update

CREATE OR REPLACE PROCEDURE Update\_Patient(

p\_Patient\_ID IN INT,

p\_Name IN VARCHAR,

p\_EGN IN CHAR

)

IS

BEGIN

UPDATE Patient

SET Name = p\_Name,

EGN = p\_EGN

WHERE Patient\_ID = p\_Patient\_ID;

END;

/

--delete

CREATE OR REPLACE PROCEDURE Delete\_Patient(

p\_Patient\_ID IN INT

)

IS

BEGIN

DELETE FROM Patient

WHERE Patient\_ID = p\_Patient\_ID;

END;

/

--LEKAR---------------------------------------------------------->

--add

CREATE OR REPLACE PROCEDURE Add\_Doctor(

p\_Doctor\_ID IN INT,

p\_Specialty\_ID IN INT,

p\_Name IN VARCHAR,

p\_Phone IN VARCHAR

)

IS

BEGIN

INSERT INTO Doctor (Doctor\_ID, Specialty\_ID, Name, Phone)

VALUES (p\_Doctor\_ID, p\_Specialty\_ID, p\_Name, p\_Phone);

END;

/

--update

CREATE OR REPLACE PROCEDURE Update\_Doctor(

p\_Doctor\_ID IN INT,

p\_Specialty\_ID IN INT,

p\_Name IN VARCHAR,

p\_Phone IN VARCHAR

)

IS

BEGIN

UPDATE Doctor

SET Specialty\_ID = p\_Specialty\_ID,

Name = p\_Name,

Phone = p\_Phone

WHERE Doctor\_ID = p\_Doctor\_ID;

END;

/

--delete

CREATE OR REPLACE PROCEDURE Delete\_Doctor(

p\_Doctor\_ID IN INT

)

IS

BEGIN

DELETE FROM Doctor

WHERE Doctor\_ID = p\_Doctor\_ID;

END;

/

--LECHENIE---------------------------------------------------------->

--add

CREATE OR REPLACE PROCEDURE Add\_Treatment(

p\_Treatment\_ID IN INT,

p\_Patient\_ID IN INT,

p\_Doctor\_ID IN INT,

p\_Treatment\_Date IN DATE,

p\_Duration IN INT,

p\_Diagnosis\_ID IN INT

)

IS

BEGIN

INSERT INTO Treatment (Treatment\_ID, Patient\_ID, Doctor\_ID, Treatment\_Date, Duration, Diagnosis\_ID)

VALUES (p\_Treatment\_ID, p\_Patient\_ID, p\_Doctor\_ID, p\_Treatment\_Date, p\_Duration, p\_Diagnosis\_ID);

END;

/

--update

CREATE OR REPLACE PROCEDURE Update\_Treatment(

p\_Treatment\_ID IN INT,

p\_Patient\_ID IN INT,

p\_Doctor\_ID IN INT,

p\_Treatment\_Date IN DATE,

p\_Duration IN INT,

p\_Diagnosis\_ID IN INT

)

IS

BEGIN

UPDATE Treatment

SET Patient\_ID = p\_Patient\_ID,

Doctor\_ID = p\_Doctor\_ID,

Treatment\_Date = p\_Treatment\_Date,

Duration = p\_Duration,

Diagnosis\_ID = p\_Diagnosis\_ID

WHERE Treatment\_ID = p\_Treatment\_ID;

END;

/

--delete

CREATE OR REPLACE PROCEDURE Delete\_Treatment(

p\_Treatment\_ID IN INT

)

IS

BEGIN

DELETE FROM Treatment

WHERE Treatment\_ID = p\_Treatment\_ID;

END;

/

* Тригери

Търсения  
  
Справки

--PATIENT ID---------------------------------------------------------->

CREATE OR REPLACE TRIGGER trg\_patient\_id

BEFORE INSERT ON Patient

FOR EACH ROW

BEGIN

SELECT NVL(MAX(Patient\_ID), 0) + 1 INTO :NEW.Patient\_ID

FROM Patient;

END;

--DOCTOR ID---------------------------------------------------------->

CREATE OR REPLACE TRIGGER trg\_doctor\_id

BEFORE INSERT ON Doctor

FOR EACH ROW

BEGIN

SELECT NVL(MAX(Doctor\_ID), 0) + 1 INTO :NEW.Doctor\_ID

FROM Doctor;

END;

--TREATEMENT ID---------------------------------------------------------->

CREATE OR REPLACE TRIGGER trg\_treatment\_id

BEFORE INSERT ON Treatment

FOR EACH ROW

BEGIN

SELECT NVL(MAX(Treatment\_ID), 0) + 1 INTO :NEW.Treatment\_ID

FROM Treatment;

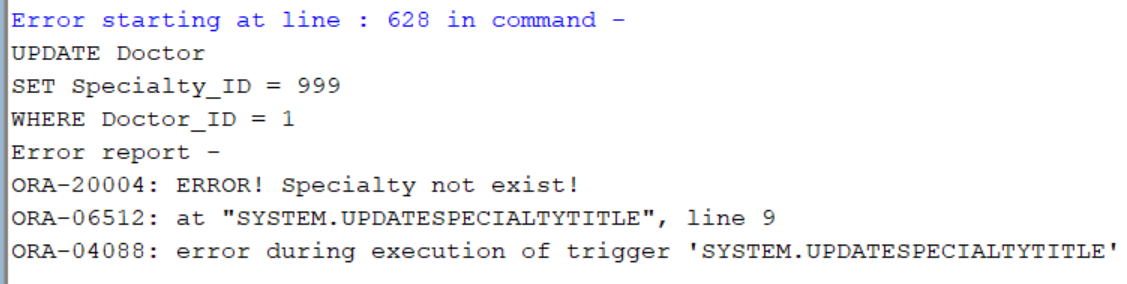
END;

IF v\_specialty\_exists = 0 THEN

RAISE\_APPLICATION\_ERROR(-20004, 'ERROR! Specialty not exist!');

END IF;

END;

/  


--Dublirane na lechenie na pacient------------------------------------------------------------>

CREATE OR REPLACE TRIGGER CheckPatientTreatmentOverlap

BEFORE INSERT OR UPDATE ON Treatment

FOR EACH ROW

DECLARE

v\_count INT;

BEGIN

SELECT COUNT(\*)

INTO v\_count

FROM Treatment

WHERE Patient\_ID = :NEW.Patient\_ID

AND Treatment\_Date <= :NEW.Treatment\_Date + :NEW.Duration

AND Treatment\_Date + Duration >= :NEW.Treatment\_Date;

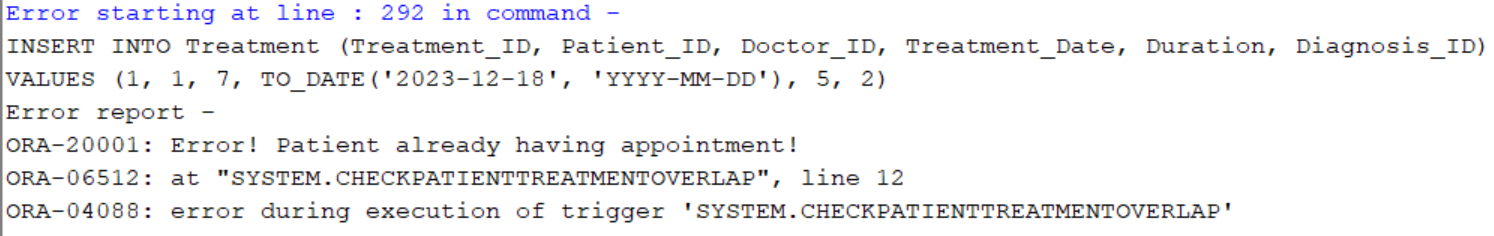
IF v\_count > 0 THEN

RAISE\_APPLICATION\_ERROR(-20001, 'Error! Patient already having appointment!');

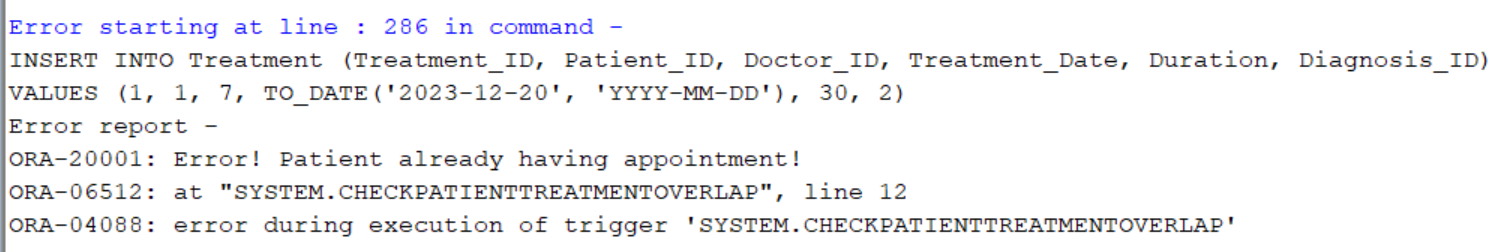
END IF;

END;

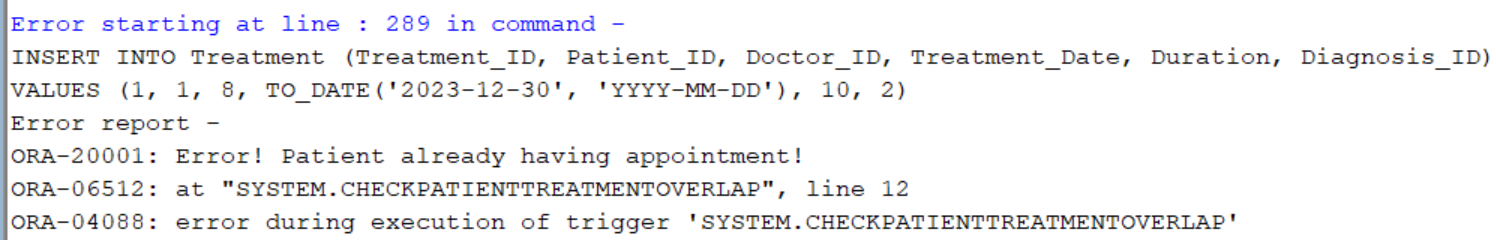
/  
--Пациент1 има лечение от 20-ти декември 2023 г. за 30 дена  
--Случай 1: от 18-ти Декември 2023 г. за 5 дена



--Случай 2: от 20-ти Декември 2023 г. за 30 дена



--Случай 3: от 30-ти Декември 2023 г. за 10 дена



--DUBLIRANE NA DOKTOR NA RAZLICHI LECHENIQ PO EDNO I SUSHTO VREME---------------------------------------->

CREATE OR REPLACE TRIGGER CheckDoctorTreatmentOverlap

BEFORE INSERT OR UPDATE ON Treatment

FOR EACH ROW

DECLARE

v\_count INT;

BEGIN

SELECT COUNT(\*)

INTO v\_count

FROM Treatment

WHERE Doctor\_ID = :NEW.Doctor\_ID

AND Treatment\_Date <= :NEW.Treatment\_Date + :NEW.Duration

AND Treatment\_Date + Duration >= :NEW.Treatment\_Date;

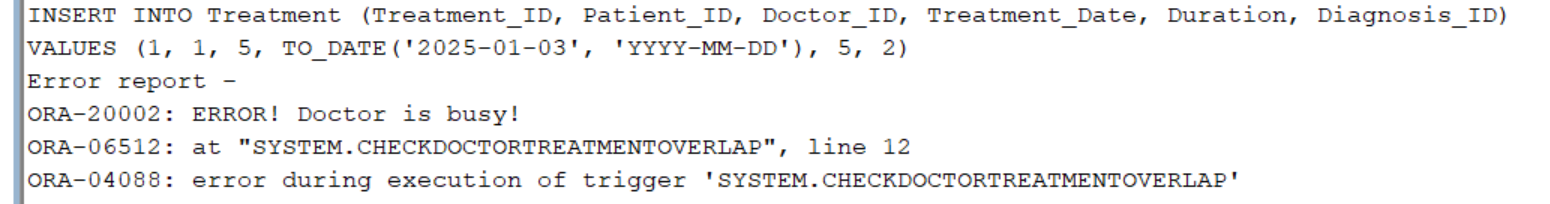
IF v\_count > 0 THEN

RAISE\_APPLICATION\_ERROR(-20002, 'ERROR! Doctor is busy!');

END IF;

END;

/



* Курсори

--Търсенията---------------------------------------------------------------------------------------------------------------

--TURSENIQ--------------------------------------------------------------

--po ime na pacient

CREATE OR REPLACE PROCEDURE Get\_Treatments\_By\_Patient\_Name (

p\_Patient\_Name IN VARCHAR2

) AS

CURSOR treatment\_cursor IS

SELECT p.name AS patient\_name,

d.name AS doctor\_name,

t.treatment\_date AS treatment\_date,

t.duration AS treatment\_duration,

td.description AS diagnosis\_description

FROM Treatment t

JOIN Patient p ON t.patient\_id = p.patient\_id

JOIN Doctor d ON t.doctor\_id = d.doctor\_id

JOIN Treatment\_Diagnosis td ON t.diagnosis\_id = td.diagnosis\_id

WHERE LOWER(p.name) LIKE '%' || LOWER(p\_Patient\_Name) || '%'

ORDER BY t.treatment\_date;

v\_patient\_name Patient.Name%TYPE;

v\_doctor\_name Doctor.Name%TYPE;

v\_treatment\_date Treatment.Treatment\_Date%TYPE;

v\_treatment\_duration Treatment.Duration%TYPE;

v\_diagnosis\_description Treatment\_Diagnosis.Description%TYPE;

BEGIN

OPEN treatment\_cursor;

LOOP

FETCH treatment\_cursor INTO v\_patient\_name, v\_doctor\_name, v\_treatment\_date, v\_treatment\_duration, v\_diagnosis\_description;

EXIT WHEN treatment\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Patient: ' || v\_patient\_name ||

', Doctor: ' || v\_doctor\_name ||

', Date: ' || v\_treatment\_date ||

', Duration: ' || v\_treatment\_duration ||

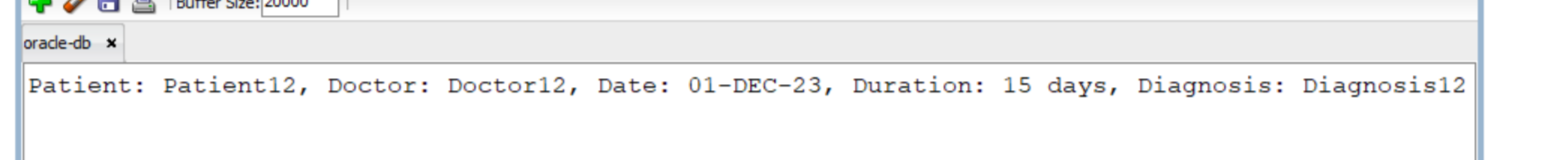
' days, Diagnosis: ' || v\_diagnosis\_description);

END LOOP;

CLOSE treatment\_cursor;

END;

EXEC Get\_Treatments\_By\_Patient\_Name('Patient12');



--po lekar

CREATE OR REPLACE PROCEDURE Get\_Treatments\_By\_Doctor\_Name (

p\_Doctor\_Name IN VARCHAR2

) AS

CURSOR treatment\_cursor IS

SELECT d.name AS doctor\_name,

p.name AS patient\_name,

t.treatment\_date AS treatment\_date,

t.duration AS treatment\_duration,

td.description AS diagnosis\_description

FROM Treatment t

JOIN Patient p ON t.patient\_id = p.patient\_id

JOIN Doctor d ON t.doctor\_id = d.doctor\_id

JOIN Treatment\_Diagnosis td ON t.diagnosis\_id = td.diagnosis\_id

WHERE LOWER(d.name) LIKE '%' || LOWER(p\_Doctor\_Name) || '%'

ORDER BY t.treatment\_date;

v\_doctor\_name Doctor.Name%TYPE;

v\_patient\_name Patient.Name%TYPE;

v\_treatment\_date Treatment.Treatment\_Date%TYPE;

v\_treatment\_duration Treatment.Duration%TYPE;

v\_diagnosis\_description Treatment\_Diagnosis.Description%TYPE;

BEGIN

OPEN treatment\_cursor;

LOOP

FETCH treatment\_cursor INTO v\_doctor\_name, v\_patient\_name, v\_treatment\_date, v\_treatment\_duration, v\_diagnosis\_description;

EXIT WHEN treatment\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Doctor: ' || v\_doctor\_name ||

', Patient: ' || v\_patient\_name ||

', Date: ' || v\_treatment\_date ||

', Duration: ' || v\_treatment\_duration ||

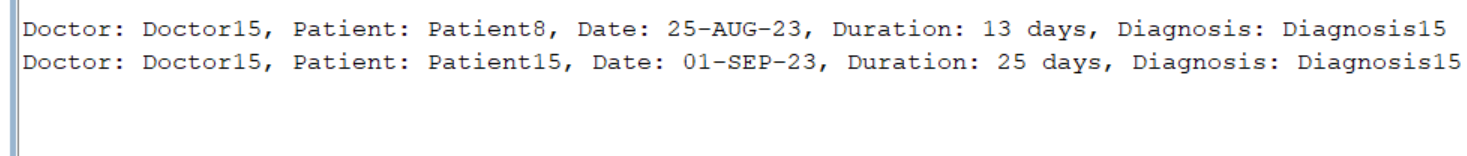
' days, Diagnosis: ' || v\_diagnosis\_description);

END LOOP;

CLOSE treatment\_cursor;

END;

EXEC Get\_Treatments\_By\_Doctor\_Name('Doctor15');



--po lechenie

CREATE OR REPLACE PROCEDURE Get\_Treatments\_By\_Diagnosis (

p\_Diagnosis\_Name IN VARCHAR2

) AS

CURSOR treatment\_cursor IS

SELECT d.name AS doctor\_name,

p.name AS patient\_name,

t.treatment\_date AS treatment\_date,

t.duration AS treatment\_duration,

td.description AS diagnosis\_description

FROM Treatment t

JOIN Patient p ON t.patient\_id = p.patient\_id

JOIN Doctor d ON t.doctor\_id = d.doctor\_id

JOIN Treatment\_Diagnosis td ON t.diagnosis\_id = td.diagnosis\_id

WHERE LOWER(td.description) LIKE '%' || LOWER(p\_Diagnosis\_Name) || '%'

ORDER BY t.treatment\_date;

v\_doctor\_name Doctor.Name%TYPE;

v\_patient\_name Patient.Name%TYPE;

v\_treatment\_date Treatment.Treatment\_Date%TYPE;

v\_treatment\_duration Treatment.Duration%TYPE;

v\_diagnosis\_description Treatment\_Diagnosis.Description%TYPE;

BEGIN

OPEN treatment\_cursor;

LOOP

FETCH treatment\_cursor INTO v\_doctor\_name, v\_patient\_name, v\_treatment\_date, v\_treatment\_duration, v\_diagnosis\_description;

EXIT WHEN treatment\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Diagnosis: ' || v\_diagnosis\_description ||

', Doctor: ' || v\_doctor\_name ||

', Patient: ' || v\_patient\_name ||

', Date: ' || v\_treatment\_date ||

', Duration: ' || v\_treatment\_duration ||

' days');

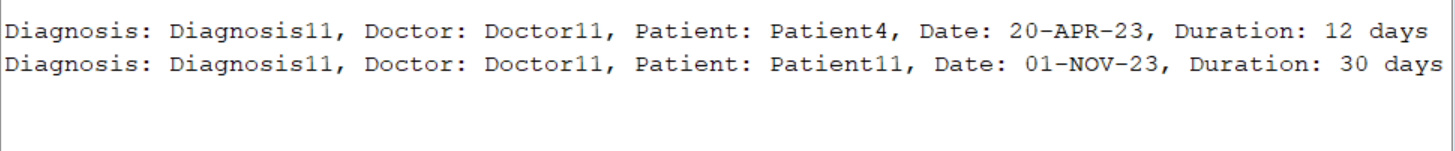
END LOOP;

CLOSE treatment\_cursor;

END;

/

EXEC Get\_Treatments\_By\_Diagnosis('Diagnosis11');



--Справки----------------------------------------------------------------------------------

--lechenie po EGN---------------------------------------->

CREATE OR REPLACE PROCEDURE Get\_Treatments\_By\_Patient (

p\_EGN IN CHAR

) AS

CURSOR treatment\_cursor IS

SELECT t.treatment\_date, t.duration, p.egn, p.name, td.description, d.name

FROM Treatment t

JOIN Patient p ON t.patient\_id = p.patient\_id

JOIN Treatment\_Diagnosis td ON t.diagnosis\_id = td.diagnosis\_id

JOIN Doctor d ON t.doctor\_id = d.doctor\_id

WHERE p.egn = p\_EGN

ORDER BY t.treatment\_date;

v\_treatment\_date Treatment.Treatment\_Date%TYPE;

v\_duration Treatment.Duration%TYPE;

v\_patient\_egn Patient.EGN%TYPE;

v\_patient\_name Patient.Name%TYPE;

v\_description Treatment\_Diagnosis.Description%TYPE;

v\_doctor\_name Doctor.Name%TYPE;

BEGIN

OPEN treatment\_cursor;

LOOP

FETCH treatment\_cursor INTO v\_treatment\_date, v\_duration, v\_patient\_egn, v\_patient\_name, v\_description, v\_doctor\_name;

EXIT WHEN treatment\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Date: ' || v\_treatment\_date ||

', Patient EGN: ' || v\_patient\_egn ||

', Patient Name: ' || v\_patient\_name ||

', Duration: ' || v\_duration ||

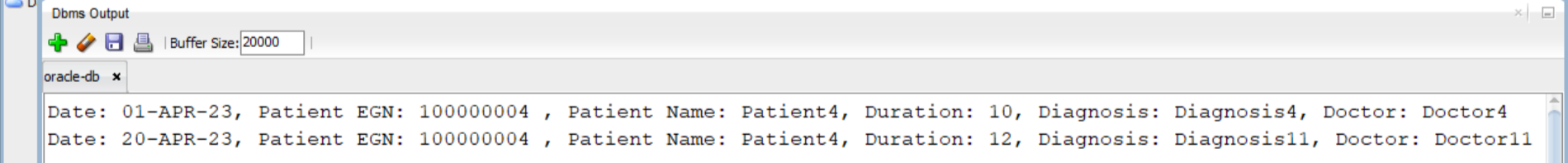
', Diagnosis: ' || v\_description ||

', Doctor: ' || v\_doctor\_name);

END LOOP;

CLOSE treatment\_cursor;

END;  
EXEC Get\_Treatments\_By\_Patient('100000004');



--Diagnosis po Doctor ---------------------------------------->

CREATE OR REPLACE PROCEDURE Get\_Diagnoses\_By\_Doctor (

p\_Doctor\_Name IN VARCHAR2

) AS

CURSOR diagnose\_cursor IS

SELECT d.name AS doctor\_name,

p.name AS patient\_name,

t.duration AS treatment\_duration,

td.description AS diagnosis\_description,

t.treatment\_date AS treatment\_date

FROM Treatment t

JOIN Treatment\_Diagnosis td ON t.diagnosis\_id = td.diagnosis\_id

JOIN Doctor d ON t.doctor\_id = d.doctor\_id

JOIN Patient p ON t.patient\_id = p.patient\_id

WHERE LOWER(d.name) LIKE '%' || LOWER(p\_Doctor\_Name) || '%'

ORDER BY t.treatment\_date;

v\_doctor\_name Doctor.Name%TYPE;

v\_patient\_name Patient.Name%TYPE;

v\_treatment\_duration Treatment.Duration%TYPE;

v\_description Treatment\_Diagnosis.Description%TYPE;

v\_treatment\_date Treatment.Treatment\_Date%TYPE;

BEGIN

OPEN diagnose\_cursor;

LOOP

FETCH diagnose\_cursor INTO v\_doctor\_name, v\_patient\_name, v\_treatment\_duration, v\_description, v\_treatment\_date;

EXIT WHEN diagnose\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Doctor: ' || v\_doctor\_name ||

', Patient: ' || v\_patient\_name ||

', Duration: ' || v\_treatment\_duration ||

' days, Diagnosis: ' || v\_description ||

', Date: ' || v\_treatment\_date);

END LOOP;

CLOSE diagnose\_cursor;

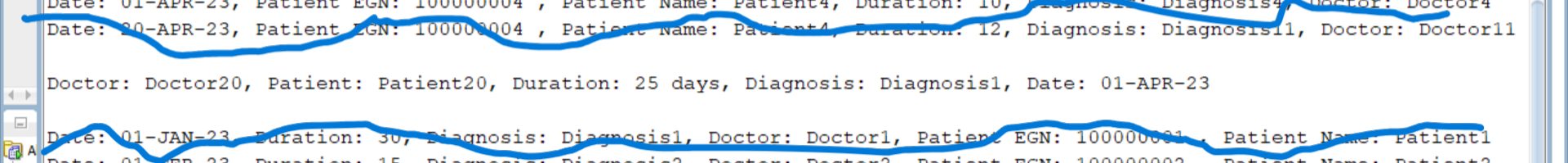
EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Error: ' || SQLERRM);

END;

EXEC Get\_Diagnoses\_By\_Doctor('Doctor20');



--Start\_Date i End\_Date na Treatement ---------------------------------------->

CREATE OR REPLACE PROCEDURE Get\_Treatments\_By\_Date (

p\_Start\_Date IN DATE,

p\_End\_Date IN DATE

) AS

CURSOR treatment\_cursor IS

SELECT t.treatment\_id, t.treatment\_date, t.duration, td.description, d.name, p.egn, p.name

FROM Treatment t

JOIN Treatment\_Diagnosis td ON t.diagnosis\_id = td.diagnosis\_id

JOIN Doctor d ON t.doctor\_id = d.doctor\_id

JOIN Patient p ON t.patient\_id = p.patient\_id

WHERE t.treatment\_date BETWEEN p\_Start\_Date AND p\_End\_Date

ORDER BY t.treatment\_date;

v\_treatment\_id Treatment.Treatment\_ID%TYPE;

v\_treatment\_date Treatment.Treatment\_Date%TYPE;

v\_duration Treatment.Duration%TYPE;

v\_description Treatment\_Diagnosis.Description%TYPE;

v\_doctor\_name Doctor.Name%TYPE;

v\_patient\_egn Patient.EGN%TYPE;

v\_patient\_name Patient.Name%TYPE;

BEGIN

OPEN treatment\_cursor;

LOOP

FETCH treatment\_cursor INTO v\_treatment\_id, v\_treatment\_date, v\_duration, v\_description, v\_doctor\_name, v\_patient\_egn, v\_patient\_name;

EXIT WHEN treatment\_cursor%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Date: ' || v\_treatment\_date ||

', Duration: ' || v\_duration ||

', Diagnosis: ' || v\_description ||

', Doctor: ' || v\_doctor\_name ||

', Patient EGN: ' || v\_patient\_egn ||

', Patient Name: ' || v\_patient\_name);

END LOOP;

CLOSE treatment\_cursor;

END;

EXEC Get\_Treatments\_By\_Date(TO\_DATE('2023-01-01', 'YYYY-MM-DD'), TO\_DATE('2023-10-01', 'YYYY-MM-DD'));

