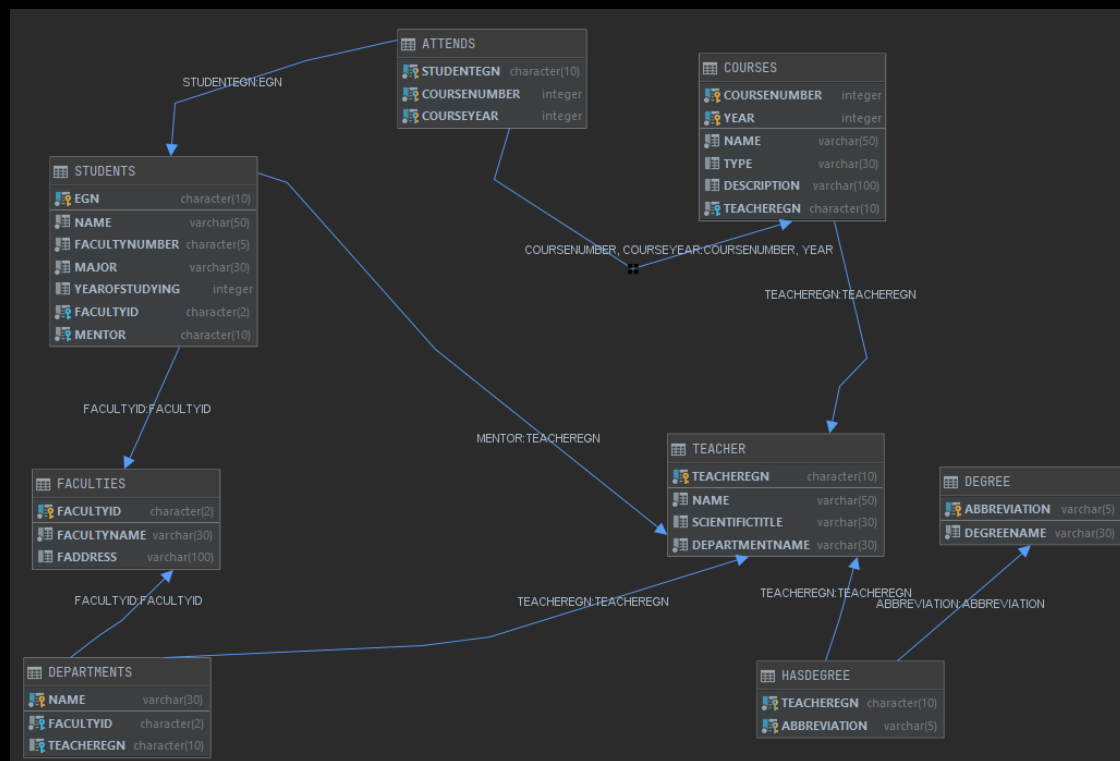


УНИВЕРСИТЕТ

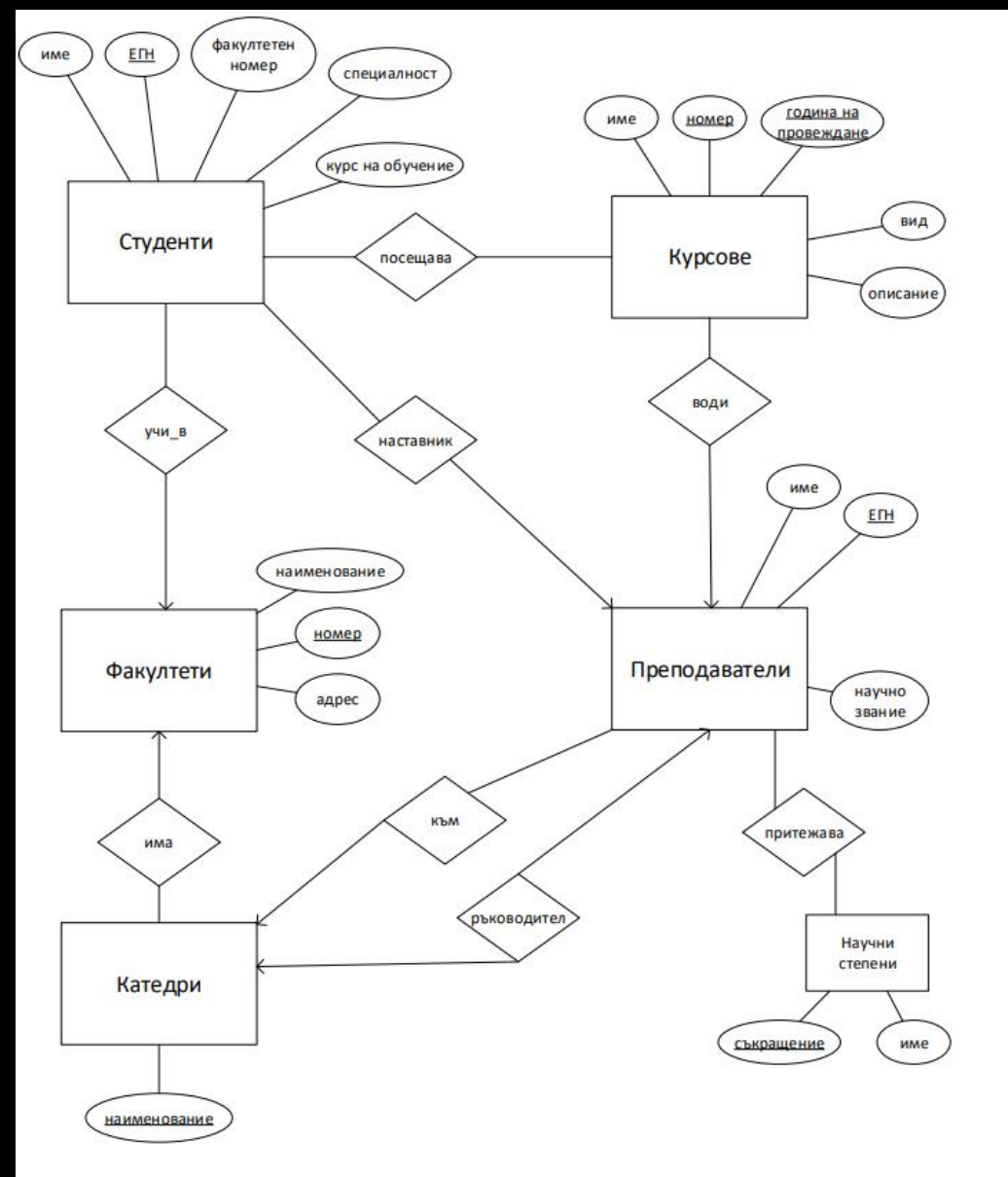
БД – практикум 2020/2021 летен семестър

Изготвил: Веселин Тодоров

E/R МОДЕЛ



E/R модел в DataGrip



E/R модел при проектирането

РЕЛАЦИОНЕН МОДЕЛ И ФЗ

Релационен модел →

ФЗ-1 EGN → name, facultyNumber, major, yearOfStudying, facultyID, mentor (Students)

ФЗ-2 courseNumber, year → name, type, description, teacherEGN (Course)

ФЗ-3 facultyID → facultyName, address (Faculties)

ФЗ-4 name → facultyID, teacherEGN (Departments)

ФЗ-5 teacherEGN → name, scientificTitle, departmentName (Teachers)

ФЗ-6 abbreviation → degreeName (Degrees)

Students(name, EGN, facultyNumber, major, yearOfStudying, facultyID, mentor)

Courses(name, courseNumber, year, type, description, teacherEGN)

Faculties(facultyName, facultyID, address)

Departments(name, facultyID, teacherEGN)

Teacher (name, teacherEGN, scientificTitle, departmentName)

Degrees (abbreviation, degreeName)

Attends(studentEGN, courseNumber, courseYear)

HasDegree(teacherEGN, abbreviation)

← ФУНКЦИОНАЛНИ ЗАВИСИМОСТИ

ИЗГЛЕДИ

Скрипт за изгледи в DataGrip

```
CREATE VIEW ATTENDED_COURSES AS
SELECT S.NAME AS STUDENTNAME, C.NAME AS COURSENAME
FROM STUDENTS S, ATTENDS A, COURSES C
WHERE S.EGN = A.STUDENTEGN AND A.COURSEYEAR = C.YEAR AND A.COURSENUMBER = C.COURSENUMBER;

SELECT * FROM ATTENDED_COURSES;

CREATE VIEW MENTOR_OF_DEPARTMENTS AS
SELECT D.NAME AS DEPARTMENT, T.NAME AS TEACHER
FROM DEPARTMENTS D, TEACHER T
WHERE D.TEACHEREGN = T.TEACHEREGN;

SELECT * FROM MENTOR_OF_DEPARTMENTS;
```

<- изглед за посещаваните от
Студенти курсове

<- изглед за ръководителите на
катедри

ПРИЛОЖЕНИЕ НА JAVA

```
Menu:
1 - Find student by:
2 - Show attended courses
3 - Show students mentor
4 - Find teacher by:
5 - Show departments headteacher
6 - Enroll student
7 - Hire teacher
8 - Exit
Your choice: 1
Choose criteria (course/egn): egn
Enter egn: 0000000003
Executing query: SELECT * FROM FN71923.STUDENTS WHERE E

Result output

-----

Dimitar Sotirov, 0000000003, 00003, Information systems
```

```
Menu:
1 - Find student by:
2 - Show attended courses
3 - Show students mentor
4 - Find teacher by:
5 - Show departments headteacher
6 - Enroll student
7 - Hire teacher
8 - Exit
Your choice: 3
Enter egn: 0000000007
Executing query: SELECT S.NAME AS
FROM FN71923.STUDENTS S
WHERE S.EGN = 0000000007

Result output

-----

Lachezar Peshterliev, 6204018147
```

```
Menu:
1 - Find student by:
2 - Show attended courses
3 - Show students mentor
4 - Find teacher by:
5 - Show departments headteacher
6 - Enroll student
7 - Hire teacher
8 - Exit
Your choice: 5
Executing query: SELECT * FROM FN71923.MENTOR

Result output

-----

Algebra, Asen Bojilov
Probability and statistics, Dontcho Dontchev
Geometry, Bogdan Aleksandrov
Analysis, Milko Takev
Computer informatics, Radoslava Hristova
Software technologies, Olga Georgieva
Differential Equations, Tsvetan Hristov
```

Снимки от приложението в IntelliJ

The image features a solid black background. At the top, there is a decorative horizontal band with a wavy, fluid appearance. This band is composed of several overlapping layers of color, including bright yellow, orange, red, and a hint of cyan or light blue, creating a sense of motion and depth.

БЛАГОДАРЯ ЗА ВНИМАНИЕТО!