***LAB 5 BOGDAN TATU***

*-- A*

select COURSE.ID, COURSE.NAME, TEACHER.DEPARTMENT

    from TEACHER

    inner join COURSE

    on TEACHER.ID = COURSE.TEACHER\_ID

    where TEACHER.NAME = 'Joe' and TEACHER.SURNAME = 'Mayor';

\* INNER JOINS – the course taught by the teacher is directly linked by the teacher id

*-- B*

select STUDENT.\*

    from STUDENT

    inner join SIGNUP

    on STUDENT.ID = SIGNUP.STUDENT\_ID

    inner join COURSE

    on SIGNUP.COURSE\_ID = COURSE.ID

    where COURSE.NAME = 'Programming' and extract(year from SIGNUP.YEAR) between '2015' and '2025';

\* INNER JOINS – I only need students that are signed up to a course

*-- C*

select COURSE.\*

    from COURSE

    inner join TEACHER

    on TEACHER.ID = COURSE.TEACHER\_ID

    inner join DEPARTMENT

    on TEACHER.DEPARTMENT = DEPARTMENT.ID

    where DEPARTMENT.FACULTY = 'AC';

\* INNER JOINS – I only need courses that are taught by a teacher that belongs to a department

*-- D*

select distinct COURSE.NAME, STUDENT.DEPARTMENT

    from COURSE

    inner join SIGNUP

    on SIGNUP.COURSE\_ID = COURSE.ID

    inner join STUDENT

    on STUDENT.ID = SIGNUP.STUDENT\_ID

    where STUDENT.NAME = 'Ioan' and STUDENT.SURNAME = 'Popescu';

\* INNER JOINS – I only need courses that have the student signed up to them

*-- E*

select distinct STUDENT.\*

    from STUDENT

    inner join SIGNUP

    on STUDENT.ID = SIGNUP.STUDENT\_ID

    inner join COURSE

    on SIGNUP.COURSE\_ID = COURSE.ID

    inner join TEACHER

    on TEACHER.ID = COURSE.TEACHER\_ID

    where TEACHER.NAME = 'Joe' and TEACHER.SURNAME = 'Mayor'

\* INNER JOINS – I only need students that are signed up to a course, that course taught by a specific teacher

*-- F*

select COURSE.NAME, SIGNUP.YEAR, GRADE.ELP, GRADE.VALUE

    from GRADE

    inner join STUDENT

    on STUDENT.ID = GRADE.STUDENT\_ID

    inner join SIGNUP

    on SIGNUP.STUDENT\_ID = STUDENT.ID

    inner join COURSE

    on SIGNUP.COURSE\_ID = COURSE.ID

    where STUDENT.NAME = 'Andrei' and STUDENT.SURNAME = 'Floraru';

\* INNER JOINS – Grades of a student that is signed up to the courses that grade belong to

*-- G*

select distinct STUDENT.NAME, STUDENT.SURNAME, COURSE.NAME, GRADE.VALUE

    from STUDENT

    left join SIGNUP

    on STUDENT.ID = SIGNUP.STUDENT\_ID

    left join COURSE

    on SIGNUP.COURSE\_ID = COURSE.ID

    left join GRADE

    on STUDENT.ID = GRADE.STUDENT\_ID

\* LEFT JOINS – All students that are/are not signed up to a course. If signed up, they may/may not have a grade for that course

*-- H*

select DEPARTMENT.NAME, STUDENT.NAME, STUDENT.SURNAME

    from DEPARTMENT

    right join STUDENT

    on STUDENT.DEPARTMENT = DEPARTMENT.ID

\* RIGHT JOIN – Department of all students

*-- I*

select STUDENT.NAME, STUDENT.SURNAME, COURSE.NAME

    from STUDENT

    full join SIGNUP

    on STUDENT.ID = SIGNUP.STUDENT\_ID

    full join COURSE

    on SIGNUP.COURSE\_ID = COURSE.ID

\* FULL JOIN – Students that are/are not signed up to a course. Courses that may/may not belong to any student