QUERY CON GROUP BY

-Esercizio 1
Contare quanti iscritti ci sono stati ogni anno.

```
SELECT COUNT(*) as number_of_students, enrolment_date
FROM students
GROUP BY enrolment_date
ORDER BY enrolment_date;
```

-Esercizio 2
Contare gli insegnanti che hanno l'ufficio nello stesso edificio.

```
SELECT COUNT(*) as number_of_teachers , office_address
FROM teachers
GROUP BY office_address
ORDER BY number_of_teachers;
```

-Esercizio 3
Calcolare la media dei voti di ogni appello d'esame.

```
SELECT exam_id as exam, AVG(vote)
FROM exam_student
GROUP BY exam_id;
```

-Esercizio 4
Contare quanti corsi di laurea ci sono per ogni dipartimento.

```
SELECT  departments.name as department, COUNT(degrees.id) as
number_of_degrees
from degrees
JOIN departments on degrees.department_id = departments.id
GROUP BY departments.name
ORDER BY number_of_degrees;
```

QUERY CON JOIN

-Esercizio 1
Seleziona tutti gli studenti iscritti al corso di laurea in Economia.

```
SELECT  degrees.name as corso_laurea_economia, COUNT(students.id)
FROM degrees
JOIN students on students.degree_id  = degrees.id
WHERE degrees.name = 'Corso di Laurea in Economia';
```

-Esercizio 2
Seleziona tutti i corsi di laurea magistrale del dipartimento di Neuroscienze.

```
SELECT departments.name , degrees.name
FROM departments
JOIN degrees on degrees.department_id  = departments.id
WHERE departments.name = "Dipartimento di Neuroscienze" AND
degrees.level = "magistrale" ;
```

-Esercizio 3
Seleziona tutti i corsi in cui insegna Fulvio Amato.

```
SELECT DISTINCT degrees.*
FROM degrees
JOIN courses ON degrees.id = courses.degree_id
JOIN course_teacher ON courses.id = course_teacher.course_id
WHERE course_teacher.teacher_id = 44;
```

-Esercizio 4
Selezionare tutti gli studenti con i dati relativi al corso di laurea a cui sono iscritti e il relativo dipartimento, in ordine alfabetico per cognome e nome

```
SELECT students.name , students.surname , degrees.name as degree ,
departments.name as department
FROM students
JOIN degrees on students.degree_id = degrees.id
JOIN departments on degrees.department_id = departments.id
ORDER BY students.name , students.surname ;
```

-Esercizio 5

Selezionare tutti i corsi di laurea con i relativi corsi e insegnanti

```
SELECT degrees.name as course_degree, courses.name as course_name,
teachers.name as teacher_name, teachers.surname as teacher_surname
FROM degrees
JOIN courses on courses.degree_id = degrees.id
JOIN course_teacher on course_teacher.course_id  = courses.id
JOIN teachers on teachers.id = course_teacher.teacher_id;
```

-Esercizio 6

Selezionare tutti i docenti che insegnano nel dipartimento di Matematica.

```
SELECT departments.name as department_name,
teachers.name as teacher_name, teachers.surname as teacher_surname
FROM departments
JOIN degrees on degrees.department_id = departments.id
JOIN courses on courses.degree_id = degrees.id
JOIN course_teacher on course_teacher.course_id = courses.id
JOIN teachers on teachers.id = course_teacher.teacher_id
WHERE departments.name = 'Dipartimento di Matematica';
```