GROUP BY

1. Contare quanti iscritti ci sono stati ogni anno

```
SELECT YEAR(enrolment_date) AS "Year" , COUNT(*) AS
"Enrolments"
FROM students
GROUP BY YEAR(enrolment_date);
```

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

```
SELECT office_address, COUNT(*) AS "teachers"
FROM teachers
GROUP BY office_address;
```

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

```
SELECT exam_id, ROUND(AVG(vote), 2) AS "average vote"
FROM exam_student
GROUP BY exam_id;
```

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

```
SELECT department_id, count(id) AS "Corsi di laurea"
FROM degrees
GROUP BY department_id;
```

JOIN

1. Selezionare tutti gli studenti iscritti al Corso di Laurea in Economia

```
SELECT students.*, degrees.name AS "degrees name"
FROM students
JOIN degrees
ON students.degree_id = degrees.id
WHERE degrees.name = "Corso di Laurea in Economia";
```

2. Selezionare tutti i Corsi di Laurea del Dipartimento di Neuroscienze

```
SELECT degrees.*, departments.name AS "department name"
FROM degrees
JOIN departments
ON degrees.department_id = departments.id
WHERE departments.name = "Dipartimento di Neuroscienze";
```

3. Selezionare tutti i corsi in cui insegna Fulvio Amato (id=44)

```
          SELECT courses.*, teachers.name AS "teacher name",
teachers.surname AS "teacher surname", teachers.id AS "teacher id"
          FROM teachers
          JOIN course_teacher
                  ON course_teacher.teacher_id = teachers.id
          JOIN courses
                  ON courses.id = course_teacher.course_id
          WHERE teachers.name LIKE "Fulvio" AND teachers.surname
LIKE "Amato";
```

4. Selezionare tutti gli studenti con relativo corso di laurea e relativo dipartimento,
    in ordine alfabetico per cognome e nome

```
          SELECT students.*, degrees.name AS "degree name",
departments.name AS "department name"
          FROM students
          JOIN degrees
                  ON students.degree_id = degrees.id
          JOIN departments
                  ON degrees.department_id = departments.id
          ORDER BY students.surname, students.name;
```

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

```
         SELECT *
         FROM degrees
           JOIN courses
               ON degrees.id = courses.degree_id
           JOIN course_teacher
               ON courses.id = course_teacher.teacher_id
           JOIN teachers
               ON teachers.id = course_teacher.teacher_id;
```

6. Selezionare tutti i docenti che insegnano nel Dipartimento di Matematica (54)

```
         SELECT DISTINCT teachers.* FROM teachers
  JOIN course_teacher
      ON teachers.id = course_teacher.teacher_id
  JOIN courses
      ON course_teacher.course_id = courses.id
  JOIN degrees
      ON courses.degree_id = degrees.id
  JOIN departments
```

```
    ON degrees.department_id = departments.id
WHERE departments.name = "Dipartimento di Matematica";
```