

db-university

Order

1. Contare quanti iscritti ci sono stati ogni anno:

```
SELECT COUNT(id), YEAR(enrolment_date)
FROM students
GROUP BY YEAR(enrolment_date);
```

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

```
SELECT office_address, COUNT(id)
FROM teachers
GROUP BY office_address;
```

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

```
SELECT exam_id, ROUND(AVG(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'
FROM degrees
GROUP BY department_id;
```

Join

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

```
SELECT *
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 *
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:

```
SELECT *  
FROM teachers  
    JOIN course_teacher  
        ON teachers.id = course_teacher.teacher_id  
    JOIN courses  
        ON course_teacher.course_id = courses.id  
WHERE teachers.name = 'Fulvio'  
    AND teachers.surname = 'Amato';
```

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

```
SELECT students.surname, students.name, degrees.name AS  
'corso', departments.name AS 'dipartimento'  
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 degrees.name AS 'corso di laurea',  
    courses.name AS 'corso',  
    teachers.name AS 'nome insegnante',  
    teachers.surname AS 'cognome insegnante'  
FROM degrees  
    JOIN courses  
        ON degrees.id = courses.degree_id  
    JOIN course_teacher  
        ON courses.id = course_teacher.course_id  
    JOIN teachers  
        ON course_teacher.teacher_id = teachers.id;
```

6. Selezionare tutti i docenti che insegnano nel dipartimento di matematica:

```
SELECT DISTINCT departments.name AS 'dipartimento',  
teachers.name AS 'nome insegnante', teachers.surname AS  
'cognome insegnante'  
FROM departments  
    JOIN degrees  
        ON departments.id = degrees.department_id  
    JOIN courses  
        ON degrees.id = courses.degree_id  
    JOIN course_teacher  
        ON courses.id = course_teacher.course_id  
    JOIN teachers  
        ON course_teacher.teacher_id = teachers.id  
WHERE departments.name = 'dipartimento di matematica';
```