db-universiity

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 ROUND(AVG(vote))
   FROM exam_student;

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 tuti gli studenti scritti 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.teacher_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';
```