

## QUERY con JOIN

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

```
SELECT `students`.`id` AS 'id_studenti_economia'
FROM `students`
INNER JOIN `degrees`
ON `degrees`.`id` = `students`.`degree_id`
WHERE `degrees`.`id` = 53;
```

2. Selezionare tutti i corsi di Laurea Magistrale del dipartimento di Neuroscienze:

```
SELECT *
FROM `degrees`
INNER JOIN `departments`
ON `degrees`.`department_id` = `departments`.`id`
WHERE `degrees`.`department_id` = 7 AND `degrees`.`level`='magistrale';
```

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

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

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`.`id` AS 'student_id', `students`.`name`,
`students`.`surname`, `degrees`.`name` AS 'nome_corso', `degrees`.`id` AS
'degrees_id'
FROM `students`
INNER JOIN `degrees` ON `students`.`degree_id` = `degrees`.`id`
INNER 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 ed insegnanti:

```

SELECT `degrees`.`name` AS 'nome_corso_laurea',
`teachers`.`name` AS 'nome_insegnante',
`courses`.`name` AS 'nome_corso',
`courses`.`id` AS 'id_corso'

FROM `degrees`
INNER JOIN `courses` ON `courses`.`degree_id` = `degrees`.`id`
INNER JOIN `course_teacher` ON `courses`.`id` =
`course_teacher`.`course_id`
INNER JOIN `teachers` ON `teachers`.`id` = `course_teacher`.`teacher_id`;

```

6. Selezionare tutti i docenti che insegnano nel dipartimento di Matematica (id=54):

```

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

```

7. Selezionare per ogni studente quanti tentativi d'esame ha sostenuto per superare ciascuno dei suoi esami:

```

SELECT `students`.`id`, `students`.`name`, `students`.`surname`,
`courses`.`name`, COUNT(`exam_student`.`vote`) AS `tentativi`,
MAX(`exam_student`.`vote`) AS `voto_finale`
FROM `students`
INNER JOIN `exam_student`
ON `students`.`id` = `exam_student`.`student_id`
INNER JOIN `exams`
ON `exams`.`id` = `exam_student`.`exam_id`
INNER JOIN `courses`
ON `exams`.`course_id` = `courses`.`id`
GROUP BY `courses`.`id`, `students`.`id`

```

```
HAVING `voto_finale` >= 18  
ORDER BY `students`.`surname`, `students`.`name`;
```