

Join

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

```
SELECT `students`.`name` AS `nome_studente`, `students`.`surname` AS  
`cognome_studente`, `degrees`.`name` AS `corso_di_laurea`  
FROM `students`  
INNER 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 `courses`.`name` AS `nome_corso`, `departments`.`name` AS  
`nome_dipartimento`  
FROM `courses`  
INNER JOIN `departments`  
ON `courses`.`degree_id` = `departments`.`id`  
WHERE `departments`.`name` = 'Dipartimento di Neuroscienze'
```

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

```
SELECT `course_teacher`.`teacher_id` AS `codice_teacher`, `courses`.`name`  
AS `codice_corso` FROM  
`course_teacher`  
INNER JOIN `courses`  
ON `courses`.`id` = `course_teacher`.`teacher_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`.`surname`, `students`.`name`, `degrees`.`name` AS  
`corso_di_laurea`,  
`degrees`.`level` AS `livello_corso`, `departments`.`name` AS  
`nome_dipartimento`  
FROM `departments`  
INNER JOIN `degrees` ON `departments`.`id` = `degrees`.`department_id`  
INNER JOIN `students` ON `degrees`.`id` = `students`.`degree_id`  
ORDER BY `students`.`surname`
```

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

```
SELECT `degrees`.`name` AS `nome_laurea`, `courses`.`name` AS  
`nome_corso`,  
`teachers`.`surname`, `teachers`.`name`  
FROM `degrees`  
INNER JOIN `courses` ON `degrees`.`id` = `courses`.`degree_id`  
INNER JOIN `course_teacher` ON `courses`.`id` =  
`course_teacher`.`course_id`  
INNER JOIN `teachers` ON `teachers`.`id` = `course_teacher`.`teacher_id`  
ORDER BY `degrees`.`name`
```

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

```
SELECT DISTINCT `teachers`.`surname`, `teachers`.`name`,  
`departments`.`name` AS  
`nome_dipartimento`  
FROM `departments`  
INNER JOIN `degrees` ON `departments`.`id` = `degrees`.`department_id`  
INNER JOIN `courses` ON `degrees`.`id` = `courses`.`degree_id`  
INNER JOIN `course_teacher` ON `courses`.`id` = `course_teacher`.`course_id`  
INNER JOIN `teachers` ON `teachers`.`id` = `course_teacher`.`teacher_id`  
WHERE `departments`.`name` = 'dipartimento di matematica' ORDER  
BY `teachers`.`surname` ASC
```

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

```
SELECT `students`.`name`, `students`.`surname`,  
`students`.`registration_number`, `courses`.`name` AS `corso`,  
COUNT(`exam_student`.`vote`) AS `n_tentativi`, MAX(`exam_student`.`vote`)  
AS `voto_max`  
FROM `students`  
JOIN `exam_student` ON `students`.`id` = `exam_student`.`student_id`  
JOIN `exams` ON `exam_student`.`exam_id` = `exams`.`id`  
JOIN `courses` ON `exams`.`course_id` = `courses`.`id`  
GROUP BY `students`.`id`, `corso`  
HAVING `voto_max` >= 18
```