

--6.1

```
SELECT DISTINCT Teacher.surname, Teacher.first_name, Teacher.teacher_number,  
Course.course_name  
FROM Course  
JOIN CourseInstance ON CourseInstance.course_code = Course.course_code  
JOIN Teacher ON Teacher.teacher_number = CourseInstance.teacher_number  
WHERE CourseInstance.teacher_number = 'h303'  
ORDER BY Course.course_name ASC
```

surname	first_name	teacher_number	course_name
-----	----	-----	-----
Ponteva	Veli	h303	Cloud Computing
Ponteva	Veli	h303	E-business

(2 rows affected)

--6.2

```
SELECT DISTINCT Teacher.surname, Teacher.first_name, Teacher.teacher_number,  
Course.course_name  
FROM Teacher  
LEFT JOIN CourseInstance ON CourseInstance.teacher_number = Teacher.teacher_number  
LEFT JOIN Course ON Teacher.teacher_number = Course.person_in_charge  
--WHERE Teacher.teacher_number IN (SELECT CourseInstance.teacher_number)  
ORDER BY Teacher.surname ASC, Teacher.first_name ASC, Teacher.teacher_number ASC,  
Course.course_name ASC
```

surname	first_name	teacher_number	course_name
-----	-----	-----	-----
Kiisseli	Marja	h999	NULL
Kokki	Seppo	h180	NULL
Matikka	Mauri	h777	Finnish 1
Ponteva	Veli	h303	Database Design
Ponteva	Veli	h303	Database Developer
Saari	Sisko	h290	E-business
Tahko	Olka	h560	NULL
Tahko	Olka	h714	NULL
Vainio	Veera	h784	Data Management
Virta	Emma	h430	Cloud Computing
Virta	Emma	h430	Java Basics

(11 rows affected)

--6.3

```

SELECT DISTINCT C1.course_code, C1.instance_number, C1.start_date, Teacher.surname + ' ' +
Teacher.first_name, Teacher.teacher_number
FROM CourseInstance C1
LEFT JOIN Teacher ON (Teacher.teacher_number = C1.teacher_number)
WHERE DATENAME(YEAR, C1.start_date) = 2008
ORDER BY C1.course_code ASC, C1.instance_number ASC

```

course_code	instance_number	start_date	teacher_number
a290	2	2008-02-02	NULL
a450	3	2008-01-01	Ponteva, Veli
a480	2	2008-01-15	Vainio, Veera

(3 rows affected)

--6.4

```

SELECT DISTINCT Campus.campus_name, Teacher.surname, Teacher.first_name,
Teacher.teacher_number, Course.course_name
FROM Teacher
LEFT JOIN Campus ON Campus.campus_code = Teacher.campus_code
LEFT JOIN CourseInstance ON CourseInstance.teacher_number = Teacher.teacher_number
LEFT JOIN Course ON Course.person_in_charge = Teacher.teacher_number
ORDER BY Campus.campus_name ASC, Teacher.surname ASC, Teacher.first_name ASC,
Teacher.teacher_number ASC, Course.course_name ASC

```

campus_name	surname	first_name	teacher_number	course_name
NULL	Kiisseli	Marja	h999	NULL
NULL	Tahko	Olka	h560	NULL
NULL	Tahko	Olka	h714	NULL
Malmi	Matikka	Mauri	h777	Finnish 1
Malmi	Saari	Sisko	h290	E-business
Pasila	Kokki	Seppo	h180	NULL
Pasila	Ponteva	Veli	h303	Database Design
Pasila	Ponteva	Veli	h303	Database Developer
Pasila	Virta	Emma	h430	Cloud Computing
Pasila	Virta	Emma	h430	Java Basics
Vierumäki	Vainio	Veera	h784	Data Management

(11 rows affected)

--6.5

```

SELECT Campus.campus_name, COUNT(ALL Teacher.teacher_number) AS "Number of Teachers"
FROM Campus
LEFT JOIN Teacher ON Teacher.campus_code = Campus.campus_code

```

GROUP BY Campus.campus_name
ORDER BY Campus.campus_name ASC

campus_name	Number of Teachers
Malmi	2
Pasila	3
Porvoo	0
Vierumäki	1

(4 rows affected)

--6.6

```
SELECT T1.surname, T1.first_name, T1.teacher_number, C1.start_date, C1.end_date
FROM Teacher AS T1
JOIN AcademicAdvisor C1 ON (T1.teacher_number = C1.teacher_number)
WHERE DATENAME(YEAR, C1.start_date) = 2010 AND C1.end_date > C1.start_date
ORDER BY T1.surname ASC, T1.first_name ASC, T1.teacher_number ASC
```

surname	first_name	teacher_number	start_date	end_date
Ponteva	Veli	h303	2010-01-15	2011-06-30

(1 row affected)

--6.7

```
SELECT DISTINCT Teacher.surname, Teacher.first_name, Teacher.teacher_number, ISNULL
(Course.course_name, '') AS 'course_name'
FROM Teacher
LEFT JOIN CourseInstance ON CourseInstance.teacher_number = Teacher.teacher_number
LEFT JOIN Course ON Teacher.teacher_number = Course.person_in_charge
ORDER BY Teacher.surname ASC, Teacher.first_name ASC, Teacher.teacher_number ASC
```

Surname	first_name	teacher_number	course_name
Kiisseli	Marja	h999	
Kokki	Seppo	h180	
Matikka	Mauri	h777	Finnish 1
Ponteva	Veli	h303	Database Design
Ponteva	Veli	h303	Database Developer
Saari	Sisko	h290	E-business
Tahko	Olka	h560	
Tahko	Olka	h714	
Vainio	Veera	h784	Data Management
Virta	Emma	h430	Cloud Computing

Virta Emma h430 Java Basics
(11 rows affected)

--6.8

```
SELECT DISTINCT T1.surname, T1.first_name, T1.teacher_number, (CASE WHEN C1.course_name IS  
NULL THEN " ELSE 'academic advisor' END) AS 'comment'  
FROM Teacher AS T1  
LEFT JOIN Course AS C1 ON (C1.person_in_charge = T1.teacher_number)  
ORDER BY T1.surname ASC, T1.first_name ASC, T1.teacher_number ASC
```

surname	first_name	teacher_number	comment
-----	-----	-----	-----
Kiisseli	Marja	h999	
Kokki	Seppo	h180	
Matikka	Mauri	h777	academic advisor
Ponteva	Veli	h303	academic advisor
Saari	Sisko	h290	academic advisor
Tahko	Olka	h560	
Tahko	Olka	h714	
Vainio	Veera	h784	academic advisor
Virta	Emma	h430	academic advisor

(9 rows affected)