



SQL Language

Queries in SQL

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Exercise

```
SEMINAR(SCode, STitle, Topic, Duration)
SPEAKER(S-SSN, SName, BirthDate)
SEMINAR-CALENDAR(SCode, Date, StartTime, S-SSN, Room)
EXPERTISE(S-SSN, Topic)
```

Write the following query in SQL

- (a) Show the code of the seminars for which at least one scheduled presentation was held by the speaker with the highest number of topics of expertise.

Exercise

The following relations are given (primary keys are underlined):

TEACHER(TCode, TName, TSurname, Department, ResearchGroupName, ResearchArea)

COURSE(CCode, CName, EnrollingStudent#, TCode, Topic)

CLASSROOM(RoomID, Floor#, Video_Kit, Seat#)

LECTURE(RoomID, Date, StartHour, EndHour, CCode, AttendingStudent#)

Video_Kit = {yes, no}

Write the following query in SQL

- (a) For each teacher who has taught *exclusively* courses whose topic is databases, select the code of the teacher and, among her courses, the code of the course for which the average number of students attending the course lectures is the highest.

Exercise

1. The following relations are given (primary keys are underlined):

TOUR-GUIDE (GuideCode, Name, Surname, Nationality)

TYPE-OF-TOUR (TourTypeCode, Monument, Duration, City)

GROUP (GroupCode, NumberOfParticipants, Language)

GUIDED-TOUR-CARRIED-OUT (GroupCode, Date, StartTime, TourTypeCode, GuideCode)

Write the following query in SQL

- (a) For each tour guide who has *never* guided a type of tour for French-speaking groups, show name and surname and, for each date, the total number of type of tours guided and their total duration.
- (b) Among the monuments for which at least 10 guided tours have been carried out, show the monuments visited by the greatest number of participants.

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Exercise

```
TEENAGER(SSN, Name, Surname, BirthDate, CityOfResidence, Sex)
ACTIVITY(ActivityCode, AName, Description, Category)
SUMMER-CAMP(CampCode, CampName, City)
SUBSCRIPTION-TO-ACTIVITY-IN-SUMMER-CAMP(SSN, ActivityCode, CampCode,
SubscriptionDate)
```

Write the following query in SQL

- (a) For each summer camp to which at least 15 teenagers subscribed to carry out activities related to at least 3 different categories, show the name of the summer camp, the city where the camp takes place, and for each activity carried out in the camp the total number of subscribed teenagers.
- (b) For each teenager, born before 2005, who subscribed to activities organized by at least 5 different summer camps, show name, surname, birth date of the teenager and the name of each summer camp to which the teenager subscribed to *all* the different activities organized by the camp.

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