



Politecnico
di Torino

DBG
MG

Exercises on SQL language (no.1)

Exercise

MAGAZINE (MID, MName, Publisher)

ARTICLE (AID, Title, Topic, MId)

➤ Find the titles of the articles on motorcycles

```
SELECT Title
```

```
FROM ARTICLE
```

```
WHERE Topic = 'Motorcycle'
```

Exercise

MAGAZINE (MID, MName, Publisher)

ARTICLE (AID, Title, Topic, MId)

➤ Find the publisher of the magazine with name “DB_Journal”

```
SELECT DISTINCT Publisher
```

```
FROM MAGAZINE
```

```
WHERE MName = 'DB_Journal'
```

Exercise

MAGAZINE (MID, MName, Publisher)

ARTICLE (AID, Title, Topic, MId)

➤ Find the names of the magazines that have published at least one article about motorcycles

```
SELECT DISTINCT MName  
FROM MAGAZINE M, ARTICLE A  
WHERE M.MID =A.MID AND A.Topic ='Motorcycle'
```

Exercise

MAGAZINE (MID, MName, Publisher)

ARTICLE (AID, Title, Topic, MId)

➤ Find the names of the magazines that have published articles about motorcycles or cars

```
SELECT DISTINCT MName
FROM MAGAZINE M, ARTICLE A
WHERE M.MID=A.MID
AND (A.Topic ='Motorcycle' OR A.Topic='Cars')
```

Exercise

STUDENT (SID, SName, City)

TEACHER (TID, TName, Depart)

COURSE (CCode, CName, TID)

EXAM (CCode, SID, Date, Grade)

➤ For each course show the course name and the name of the teacher in charge of the course

```
SELECT C.CName, T.TName
```

```
FROM COURSE C, TEACHER T
```

```
WHERE C.TID=T.TID
```

Exercise

STUDENT (SID, SName, City)

TEACHER (TID, TName, Depart)

COURSE (CCode, CName, TID)

EXAM (CCode, SID, Date, Grade)

➤ For each teacher working in the computer science department, show the name of the teacher and the name of the courses he/she is responsible for

```
SELECT T.TName, C.CName
```

```
FROM TEACHER T, COURSE C
```

```
WHERE T.Depart = 'ComputerScience'
```

```
AND C.TID = T.TID
```

Exercise

STUDENT (SID, SName, City)

TEACHER (TID, TName, Depart)

COURSE (CCode, CName, TID)

EXAM (CCode, SID, Date, Grade)

➤ For each student, show the name of the student and the name of each course for which the student passed the exam with a grade equal to 18

```
SELECT S.SName, C.CName
```

```
FROM STUDENT S, COURSE C, EXAM E
```

```
WHERE E.Grade = 18
```

```
AND S.SID = E.SID
```

```
AND C.CCode = E.CCode
```


Exercise

SAILOR (SID, SName, Expertise, DateofBirth)

BOAT(BID, BName, Color)

BOOKING (SID, BID, Date)

- Find the codes and the names of the sailors who have booked a red boat or a green boat

```
SELECT DISTINCT S.SID, SName
FROM SAILOR S, BOOKING BK, BOAT B
WHERE (B.Color='Red' OR B.Color='Green')
AND B.BID=BK.BID AND S.SID=BK.SID
```

Exercise

SAILOR (SID, SName, Expertise, DateofBirth)

BOAT(BID, BName, Color)

BOOKING (SID, BID, Date)

- Find the codes and the names of the sailors born after 1970 and expertise Skipper who have booked a red boat or a green boat

```
SELECT DISTINCT S.SID, S.SName
FROM SAILOR S, BOOKING BK, BOAT B
WHERE (B.Color='Red' OR B.Color='Green')
AND S. DateofBirth > 31/12/1970 AND Expertise ='Skipper'
AND B.BID=BK.BID AND S.SID=BK.SID
```

Exercise

PILOT(PID, PName, Salary)

AIRCRAFT (AID, AName, MaximumRange)

CERTIFICATE (AID, PID)

- Find the codes and the names of the pilots who are qualified to fly on an aircraft that can cover distances greater than 5,000 km (MaximumRange \geq 5,000)

```
SELECT DISTINCT P.PID, P.PNAME  
FROM AIRCRAFT A, CERTIFICATE C, PILOT P  
WHERE A.MaximumRange  $\geq$  5000  
AND A.AID=C.AID AND C.AID=P.PID
```

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COURSE (CourseCode, CourseName, Year, Semester)

COURSE-SCHEDULE (CourseCode, DayOfWeek, StartTime, EndTime, Room)

➤ Find the rooms where the first-year courses were held on Monday from 10:00 to 14:00

```
SELECT DISTINCT CS.Room
FROM COURSE C, COURSE-SCHEDULE CS
WHERE C.Year=1
AND CS.DayOfWeek='Monday' AND CS.StartTime=10 AND CS.EndTime=14
AND C.CourseCode=CS.CourseCode
```

Exercise

FLAT (FCode, Address, City, Surface)

LEASING-CONTRACT (LCCode, StartDate, EndDate, PersonName, MonthlyPrice, Fcode)

- Find the codes and the addresses of flats in Turin whose monthly leasing price is greater than 500 Euro

```
SELECT F.FCode, Address
```

```
FROM FLAT F, LEASING-CONTRACT LC
```

```
WHERE F.City='Turin'
```

```
AND LC.MonthlyPrice > 500
```

```
AND LC.Fcode=F.Fcode
```

Exercise

ATHLETE (ACode, AName, ASurname, TeamName, Country)

ATTENDANCE (CCode, ACode, Position)

COMPETITION (CCode, CName, CType, Category)

- Show the code and the name of the athletes who attended at least one Super G competitions (CType = 'Super G').

```
SELECT DISTINCT A.ACode, A.AName, A.ASurname
FROM ATHLETE A, ATTENDANCE AT, COMPETITION C
WHERE A.Country='Italy'
AND C.Ctype='SuperG'
AND A.ACode = AT.ACode AND C.CCode = AT.CCode
```

Exercise

SPECIALIST-VISIT (VCode, Vtype)

DOCTOR (DCode, Dname)

PATIENT (SSN, PName, BirthDate, MedicalInsurance)

BOOKING (Date, Time, DCode, Room, VCode, SSN)

- Show the SSN and name of patients with medical insurance 'BestIns' who have booked at least one cardiological examination.

```
SELECT DISTINCT P.SSN, P.PName
FROM PATIENT P, SPECIAL-VISIT SV, BOOKING B
WHERE SV.VType= 'cardiological'
AND P.MedicalInsurance = 'BestIns'
AND P.SSN=B.SSN AND SV.VCode=B.VCode
```