Exercises on SQL language (no.1)

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, Title, Topic, MId)

⟩ Find the titles of the articles on motorcycles

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, Title, Topic, MId)

⟩ Find the titles of the articles on motorcycles

SELECT Title

FROM ARTICLE

WHERE Topic ='Motorcycle'

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, Title, Topic, MId)

⟩ Find the publisher of the magazine with name "DB_Journal"

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, Title, Topic, MId)

⟩ Find the publisher of the magazine with name "DB_Journal"

SELECT DISTINCT Publisher

FROM MAGAZINE

WHERE MName ='DB_Journal'

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, Title, Topic, MId)

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

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, 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 (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, Title, Topic, MId)

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

Exercise

MAGAZINE (<u>MID</u>, MName, Publisher)

ARTICLE (<u>AID</u>, 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 (<u>SID</u>, SName, City)
TEACHER (<u>TID</u>, TName, Depart)
COURSE (<u>CCode</u>, CName, TID)
EXAM (<u>CCode</u>, <u>SID</u>, Date, Grade)

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

Exercise

STUDENT (<u>SID</u>, SName, City)

TEACHER (<u>TID</u>, TName, Depart)

COURSE (<u>CCode</u>, CName, TID)

EXAM (<u>CCode</u>, <u>SID</u>, 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 (<u>SID</u>, SName, City)

TEACHER (<u>TID</u>, TName, Depart)

COURSE (<u>CCode</u>, CName, TID)

EXAM (<u>CCode</u>, <u>SID</u>, 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

Exercise

STUDENT (<u>SID</u>, SName, City)
TEACHER (<u>TID</u>, TName, Depart)
COURSE (<u>CCode</u>, CName, TID)
EXAM (<u>CCode</u>, <u>SID</u>, 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 (<u>SID</u>, SName, City)

TEACHER (<u>TID</u>, TName, Depart)

COURSE (<u>CCode</u>, CName, TID)

EXAM (<u>CCode</u>, <u>SID</u>, 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

Exercise

STUDENT (<u>SID</u>, SName, City)

TEACHER (<u>TID</u>, TName, Depart)

COURSE (<u>CCode</u>, CName, TID)

EXAM (<u>CCode</u>, <u>SID</u>, 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 (<u>SID</u>, SName, Expertise, DateofBirth)

BOAT(<u>BID</u>, BName, Color)

BOOKING (<u>SID</u>, <u>BID</u>, Date)

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

Exercise

SAILOR (<u>SID</u>, SName, Expertise, DateofBirth)

BOAT(<u>BID</u>, BName, Color)

BOOKING (<u>SID</u>, <u>BID</u>, 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

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>=5,000)

Exercise

PILOT(<u>PID</u>, PName, Salary)

AIRCRAFT (<u>AID</u>, AName, MaximumRange)

CERTIFICATE (<u>AID</u>, <u>PID</u>)

> 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>=5,000)

SELECT DISTINCT P.PID, P.PNAME

FROM AIRCRAFT A, CERTIFICATE C, PILOT P

WHERE A.MaximumRange >= 5000

AND A.AID=C.AID AND C.AID=P.PID

Esercizio

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

Esercizio

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

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').

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.

Exercise

SPECIALIST-VISIT (<u>VCode</u>, Vtype)

DOCTOR (<u>DCode</u>, Dname)

PATIENT (<u>SSN</u>, PName, BirthDate, MedicalInsurance)

BOOKING (<u>Date</u>, <u>Time</u>, <u>DCode</u>, 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.SSB=B.SSB AND SV.VCode=B.VCode