

Student (snum: integer, sname: string, major: string, level: string, age: integer)
Class (name: string, meets_at: string, room: string, fid: integer)
Enrolled (snum: integer, cname: string)
Faculty (fid: integer, fname: string, deptid: integer)

Given above schema, write following queries using SQL

Q1: Find the department id of the faculty member named *I. Teach*.

Q2: Find the names of all junior students (level='JR'), and list in the order of age.

Q3: Find the number of classes that have an enrolment greater than 0.

Q4: Find names and majors of students who have enrolled in at least one class.

Q5: Find the number of students who have enrolled in at least two classes.

Q6: Find distinct names of all Juniors (*level = JR*) enrolled in a class taught by *I. Teach*.

Q7: Find the names of all students who have enrolled in both CSC343 and CSC443.

Q8: For all levels except JR, print the level and the average age of students for that level.

Q9: Find the names of all students and the names of all classes they are enrolled in (if any)

Given following database instance, compute the result of Q10

Student

<u>snu</u>	sname	major	level	age
101	Helen	CS	JR	19
102	Charles	CS	SR	21
103	Andy	CS	GR	25
104	Bob	CS	SR	23
105	Zorba	CS	GR	31

Enrolled

<u>snu</u>	<u>cname</u>
101	CSC343
101	CSC443
101	ECE300
102	CSC343
102	ECE201
103	CSC343
103	CSC443
103	ECE300
103	ECE201
105	CSC343

Class

<u>name</u>	meets_at	room	<u>fid</u>
CSC343	W1	BA1080	201
CSC443	T2	BA1170	202
ECE300	M1	BA1080	203
ECE201	F12	BA1060	203
CSC165	R3	BA1170	202

Faculty

<u>fid</u>	fname	<u>deptid</u>
201	S. Jackson	301
202	M. Shanks	301
203	I. Teach	302

Q10:

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SELECT DISTINCT S.sname as Student_Name
FROM Student S, Enrolled E
WHERE S.snum = E.snum AND E.snum = 'CSC343'
EXCEPT
SELECT DISTINCT S2.sname
FROM Student S2, Enrolled E2
WHERE S2.snum = E2.cnum AND E2.cnum = 'CSC443'

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