

**SQL Practice Questions - Basics**

Consider the following database file to store the information of students:

**STUDENT**

<u>field</u>	<u>type</u>	<u>width</u>	<u>contents</u>
id	numeric	4	student id number
name	character	10	name
dob	date	8	date of birth
sex	character	1	sex: M / F
class	character	2	class
hcode	character	1	house code: R, Y, B, G
dcode	character	3	district code
mtest	numeric	2	Math test score

1. a) List all the 2A students

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- b) List the names and Math test scores of the 1B boys.

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2. a) List the classes, names of students whose names contain the letter "e" as the third letter.

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- b) List the classes, names of students whose names start with "T" and do not contain "y".

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- c) List the names of 1A students whose Math test score is not 51, 61, 71, 81, or 91.

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- d) List the students who were born between 22 March 1986 and 21 April 1986

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3. a) Find the number of girls living in TST.

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- b) List the number of pass in the Math test of each class. (passing mark = 50)

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- c) List the number of girls grouped by each class
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- d) List the number of girls grouped by the year of birth.
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- e) Find the average age of Form 1 boys.
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4. a) Find the average mark of mtest for each class.
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- b) Find the maximum mark of mtest for each sex.
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- c) Find the average mark of mtest for all students.
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5. The tables phy, chem, bio are respectively the data files of the Physics Club, Chemistry Club and Biology Club.

**PHY / CHEM / BIO**

<u>field</u>	<u>type</u>	<u>width</u>	<u>contents</u>
id	numeric	4	student id number
name	character	10	name
sex	character	1	sex: M / F
class	character	2	class

- a) List the students who are common members of the Physics Club and the Chemistry Club.
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- b) List the students who are common members of the Chemistry Club and Biology Club but not of the Physics Club.
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6. A machinery company stores the parts information in a table with the following structure:

**CLIENT**

Field Name	Type	Width	Description
Part_no	Integer		Unique code for a part
Descript	Character	20	Description of the part
Qty	Integer		Quantity of the part
supplier	Character	20	Supplier of the part

Write SQL statements to fulfill the following requests. Whenever the columns are not specified, you may use `SELECT *` ...

- a) Produce a list of parts in ascending order of quantity.

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- b) Produce a list of parts that consist of the keyword 'Shaft' in the description.

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- c) Produce a list of parts that have a quantity more than 20 and are supplied by 'China Metals Co.'

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- d) List all the suppliers without duplication.

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- e) Increase the quantity by 10 for those parts with quantity less than 10.

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- f) Delete records with part\_no equal to 879, 654, 231 and 234

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- g) Add a field "Date\_purchase" to record the date of purchase.

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