

# Applied Databases

## Topic 2 Exercise Sheet

**NOTE:** When doing these exercises, the purpose is to identify the process for finding the answer to the question, not just the answer itself.

For example, in question 5 below, the process (or command) for finding all the data in the subject table will be quite similar to finding all data in any other table.

So, as well as noting the answers, you should also note the process (command or commands) used to get the answers.

### Description of the database.

The database consists of two tables, *subject* and *teacher*.

Subject	
Attribute	Description
<b>Name</b>	Name of Subject
<b>Teacher</b>	Name of Teacher of Subject
<b>OnLeavingCert</b>	0 (false) if the subject is NOT on the Leaving Cert Non 0 (true) if the subject IS on the Leaving Cert

Teacher	
Attribute	Description
<b>Tid</b>	Teacher ID
<b>Name</b>	Name of Teacher
<b>Level</b>	Level the teacher is qualified to teach to: "J" means Junior Cert "L" means Leaving Cert
<b>Experience</b>	Years of Teaching Experience the Teacher has
<b>Dob</b>	Teacher's date of birth

1. Get school.sql from Moodle and import it into MySQL.
2. What is the maximum length of data that can be inserted into the *Name* attribute of the *subject* table?
3. What is the Primary Key of the *teacher* table?
4. What is the Primary Key of the *subject* table?
5. Show all data contained in the *subject* table.



6. Show all names of all subjects that are on the leaving cert.



7. Show all name and experience of all teachers who are qualified to teach to Leaving Cert.

8. Show all details of all subjects who are taught by teachers whose title is not "Mr."

9. Show all details of all teachers who were born in January, February or March, and who can teach as far as Junior Cert only.

10. Show all unique month names that teachers were born in.

11. Show all details of all teachers, sorted by first by experience, then level.

12. Show all details of all subjects whose 3<sup>rd</sup> or 4<sup>th</sup> letter is "l". Sort them by name.

13. Show the name of all teachers who have 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 or 60 years experience. Sort from youngest to oldest.