Applied Databases
Topic 2 Exercise Sheet

Description of the database.

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

Subject	
Attribute	Description
Name	Name of Subject
Teacher	Name of Teacher of Subject
OnLeavingCert	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
Tid	Teacher ID
Name	Name of Teacher
Level	Level the teacher is qualified to teach to: "J" means Junior Cert "L" means Leaving Cert
Experience	Years of Teaching Experience the Teacher has
Dob	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.
   ```
   select * from subject;
   ```

6. Show all names of all subjects that are on the leaving cert.
   ```
   select * from subject
   where onleavingcert = 1;
   ```

   or

   ```
   select * from subject
   where onleavingcert = TRUE;
   ```

   or

   ```
   select * from subject
   where onleavingcert;
   ```

7. Show all name and experience of all teachers who are qualified to teach to Leaving Cert.
   ```
   select name, experience
   from teacher
   where level = "L";
   ```

8. Show all details of all subjects who are taught by teachers whose title is not "Mr."
   ```
   select * from subject
   where teacher NOT LIKE "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.
   ```
   select *
   from teacher
   where month(dob) BETWEEN 1 and 3
   and level = "J";
   ```

10. Show all unique month names that teachers were born in.
    ```
    select distinct monthname(dob)
    from teacher;
    ```

11. Show all details of all teachers, sorted by first by experience, then level.
    ```
    select * from teacher
    order by experience, level;
    ```

12. Show all details of all subjects whose 3rd or 4th letter is "l". Sort them by name.
    ```
    select * from subject
    where name like "__l%"
    or name like "___l%"
    order 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.
    ```
    select * from teacher
    where experience in (10,15,20,25,30,35,40,45,50,55)
    order by dob desc;
    ```