Database Fundamentals

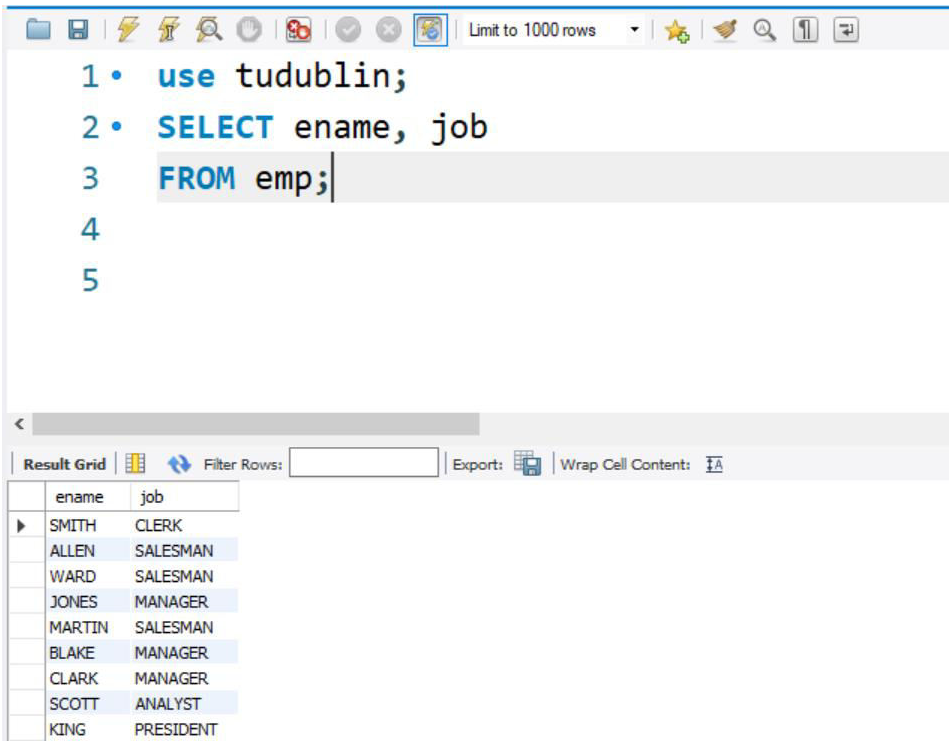
Lab Sheet 2

In MySQL Workbench write answers to the following queries based on last week tables. You should have created the emp, salgrade and dept table from labsheet 1. Code is uploaded in**CreateTablesForMySQL.sql.**

1. Take **screen prints** of each query and answer in MySQL and save the **queries and answers** to the Word document.

Example of what to copy to the word document

Question 1



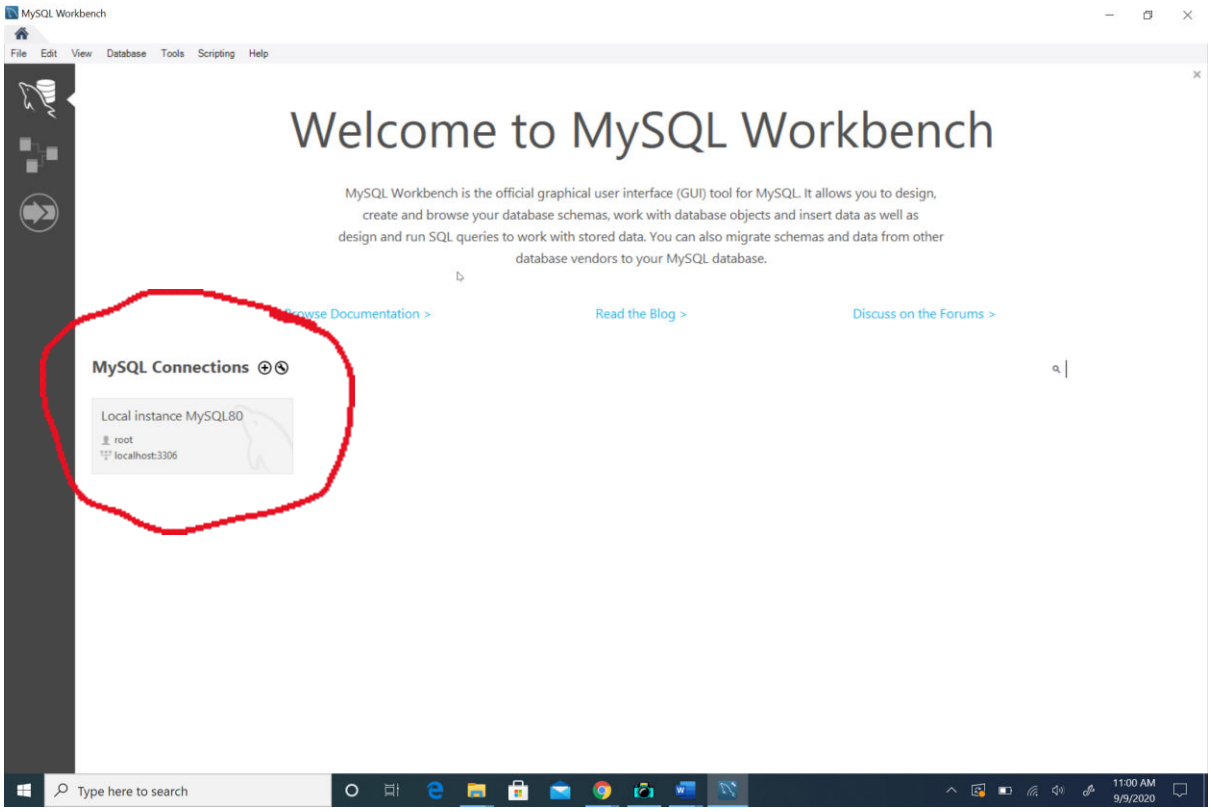
- Create SQL queries for each of the following.
- Write the queries one after the other in the editor.
- To run a query, highlight and then click execute. When done, all queries can be saved to a text file using file/save as or saved as a script file .sql.
- Save your queries and screen prints(proof that query works) to a Word document. **(B000XXXXXStudentNameLab2.doc**
- All work must be uploaded on or before the due date.
- See Moodle for the upload link and submission deadline date & time.

Getting Started with MySQL

1. **Open up workbench.**

Start the MySQL Workbench by entering MySQL in search box at bottom left of screen (Windows users) or use spotlight for mac users

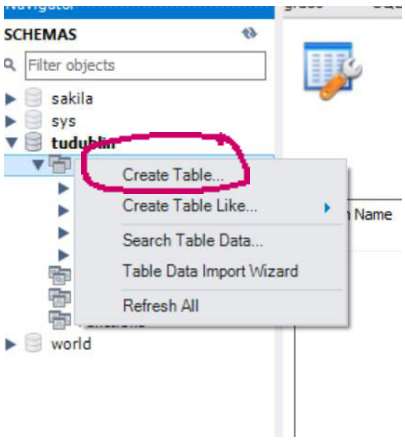
Under SQL Developer select local instance MySQL.



You may be asked for your password

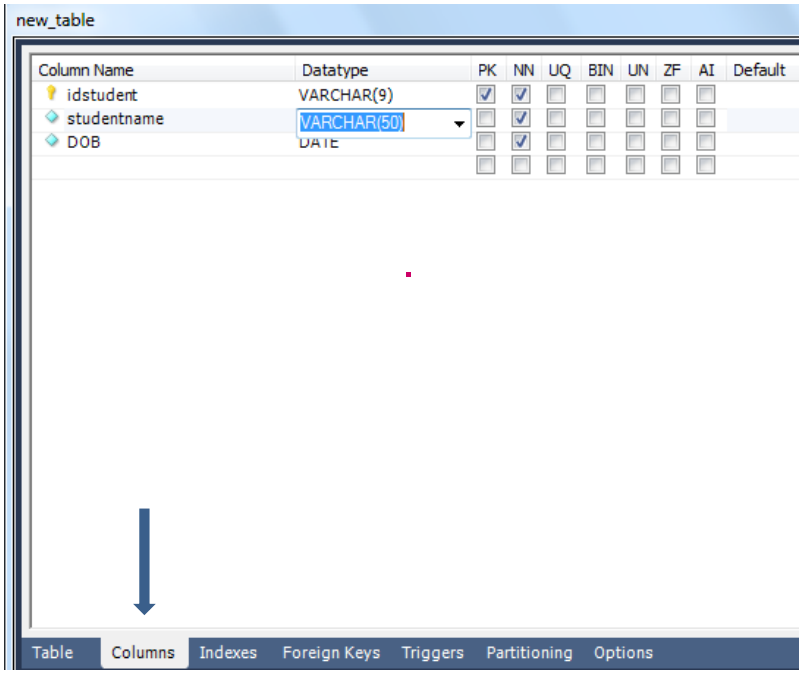
You should see the 'tudublin' schema on left hand side.

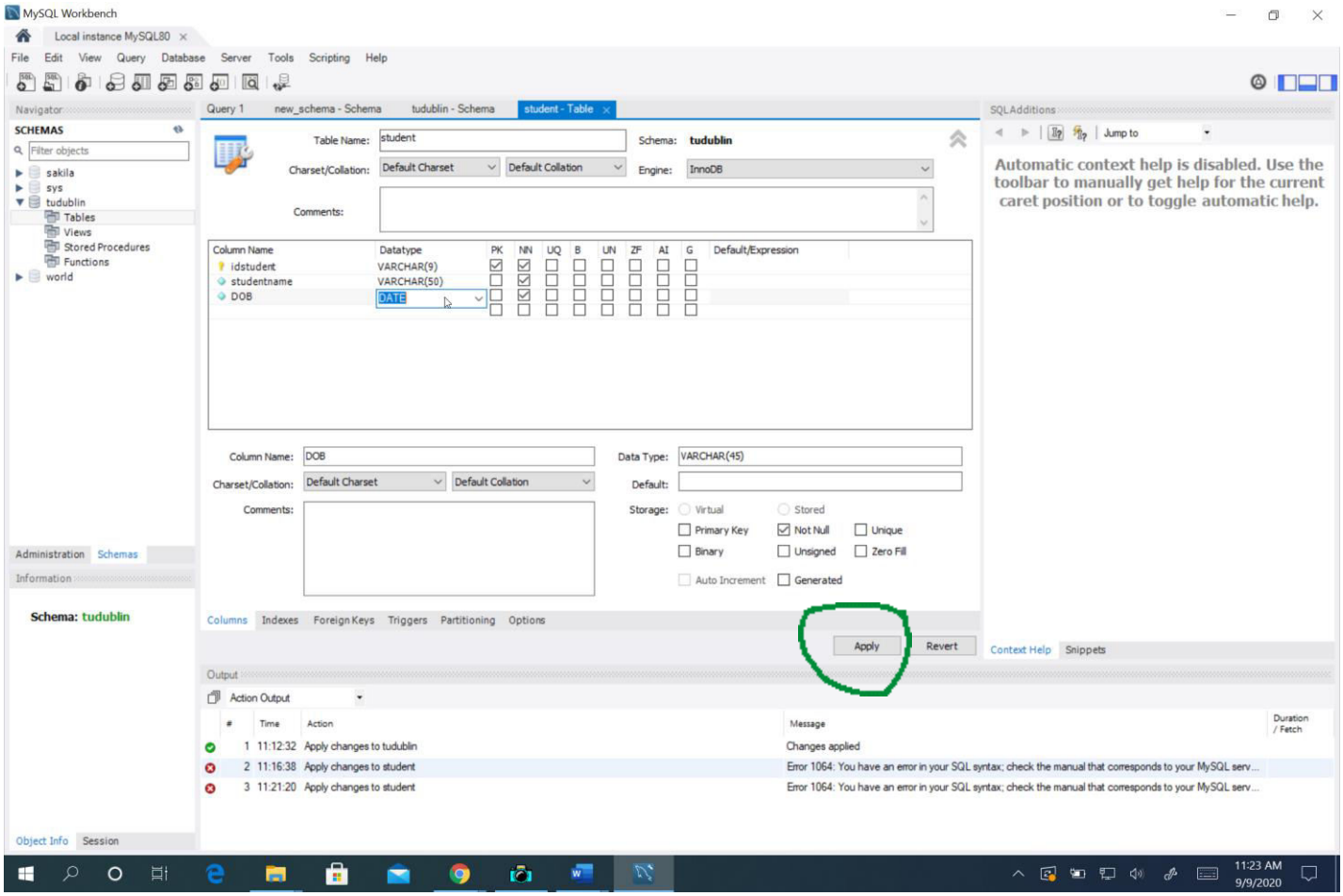
Select tables under 'tudublin' database and right-click and select 'Create Table' button to add a new table to the database.



Call the table 'student'.

Give the table three columns:
student ID which is varchar(9), student name which is varchar(50), and student date of birth which is date.
Set student ID to be the primary key.





Apply the Query and finish

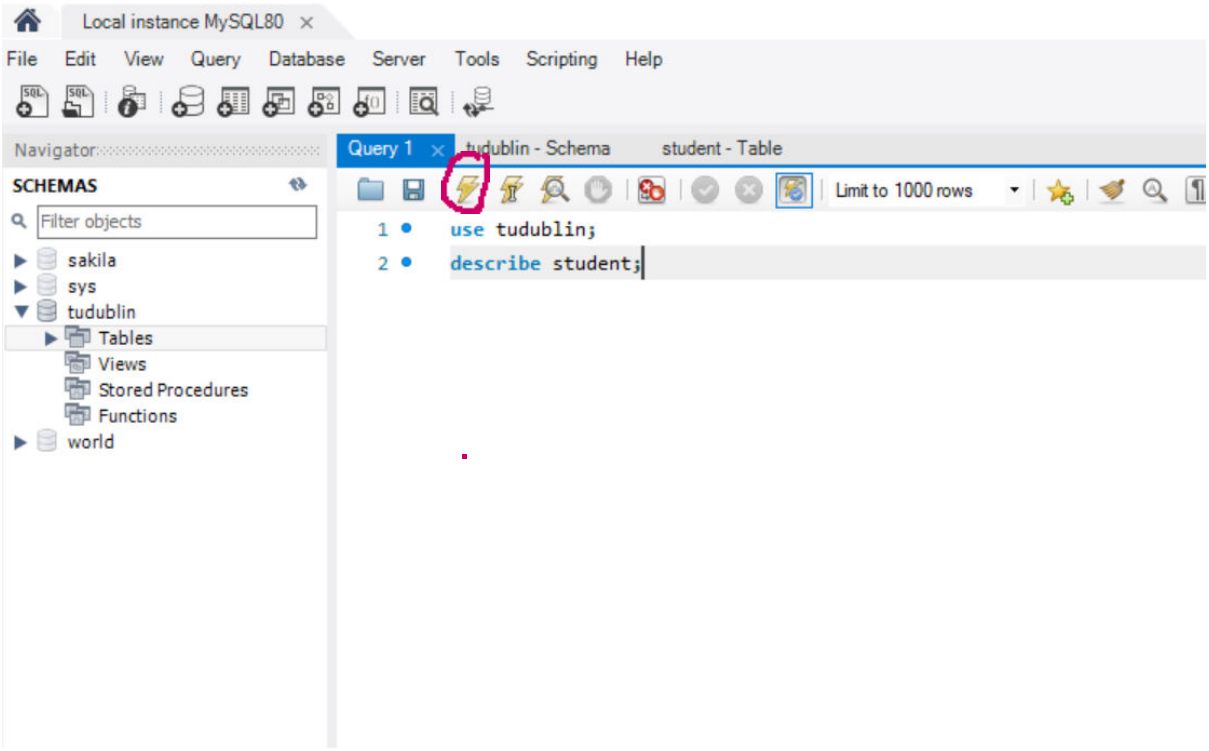
MySQL Query Browser

Next open up MySQL Query Browser. MySQL Query browser is a GUI tool for running SQL queries. Available schemas are listed.

Click the arrow to the left of the tudublin schema you created above.

In the query window at the top,

type '**use tudublin; describe student;'** and click the **execute**  button. The main window shows the results of the query, i.e. the column definitions of the student table.



Note:

You may also run SQL statements stored in an external file (i.e. typed up in note pad or text pad) using file -> open script. SQL scripts are generally recorded in a file with an extension of .sql.

2. SQL Queries

1. Show details of all employees in the Employee table.

2. Display the employee number, name and job in the Employee table.

3. Display the department number that each employee works in.

4. Display the employee number, name and occupation for all employees employed as clerks.

5. Display the name and salary of employees earning more than $2850.

6. Display the name and salary of all employees earning less than $2500.

7. Display the employee name and department number for employee number 7566.

8. Display the names and salaries of all employees whose salary is less than their commission

9. Display the names and salaries of employees earning between 1500 and 3000 a month.

10. Display the name and salary for all employees whose salary is not in the range of $1500 and $2850.

11. Display the employee name, job, and start date of employees hired between February 20, 1981, and May 1, 1981.

12. Display the employee name and department number of all employees in departments 10 and 30.

13. Display all employees not employed as managers, clerks or salespeople.