

## Practical 5

### Install and Use of MySQL Browser

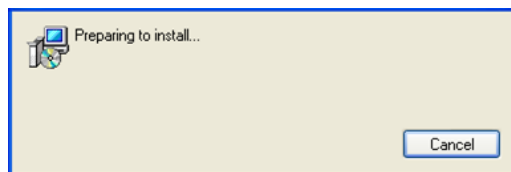
Other than using the MySQL Command Line Client tool, there are several similar GUI tools (commercial and opensource). One of the GUI tool is MySQL GUI Tools and in this module we would like to try MySQL Graphic User Interface tools that should be synonym with Windows. Other than doing the MySQL server management, all the MySQL statements can be executed using MySQL Query Browser. Firstly, download the tools at [MySQL.com](http://MySQL.com). This MySQL GUI tools include the following items:

1. MySQL Administrator.
2. MySQL Query Browser.
3. MySQL Migration Toolkit.

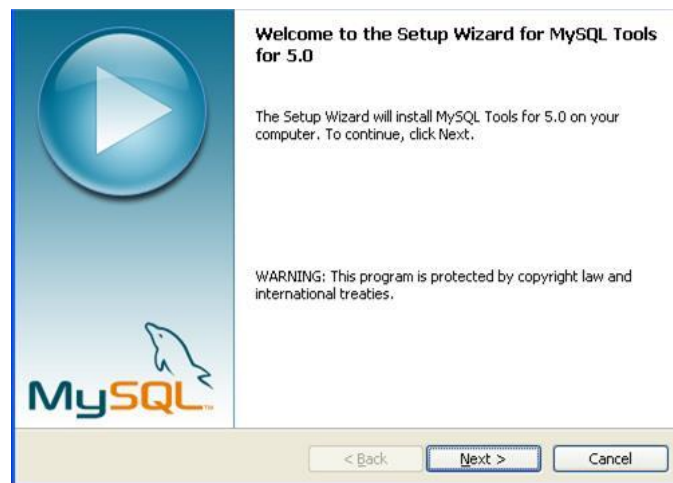
1. Double click the msi file.

| Name                                   | Size      | Type                       | Date Modified      |
|--|-----------|----------------------------|--------------------|
| userman.pdf                            | 181 KB    | Adobe Acrobat Document     | 9/12/2007 2:58 PM  |
| refman.pdf                             | 628 KB    | Adobe Acrobat Document     | 9/12/2007 3:29 PM  |
| refman-5.1-en.man.zip                  | 245 KB    | Compressed (zipped) Folder | 9/14/2007 7:10 AM  |
| refman-5.1-en.html.zip                 | 5,245 KB  | Compressed (zipped) Folder | 9/14/2007 7:10 AM  |
| refman-5.1-en.chm                      | 7,305 KB  | Compiled HTML Help file    | 9/14/2007 7:11 AM  |
| mysql-workbench-1.1.10-alpha-win32.msi | 9,144 KB  | Windows Installer Package  | 3/13/2007 8:58 PM  |
| mysqlstepinstall.zip                   | 1,357 KB  | Compressed (zipped) Folder | 10/1/2007 8:43 AM  |
| mysqlstepinstall.doc                   | 1,271 KB  | Microsoft Word Document    | 1/21/2008 12:09 AM |
| mysql-gui-tools-5.0-r12-win32.msi      | 17,817 KB | Windows Installer Package  | 5/8/2007 7:23 PM   |
| mysql-essential-5.0.45-win32.msi       | 23,414 KB | Windows Installer Package  | 7/6/2007 11:28 AM  |
| mysqldetailedconfiguration.doc         | 542 KB    | Microsoft Word Document    | 10/30/2007 3:50 PM |

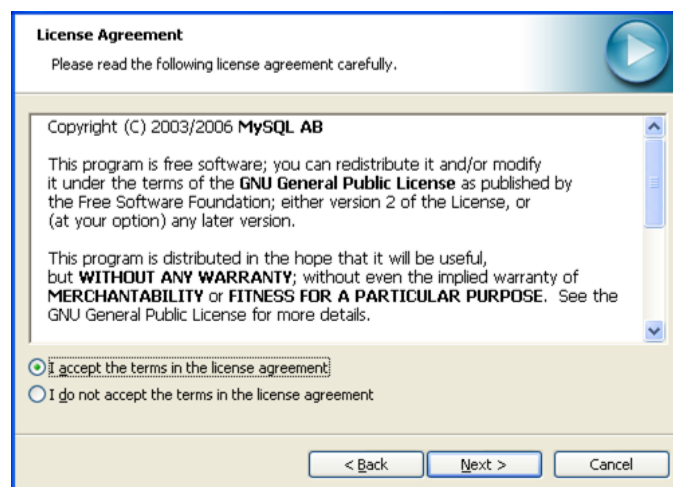
2. Windows installer splash screen will be launched.



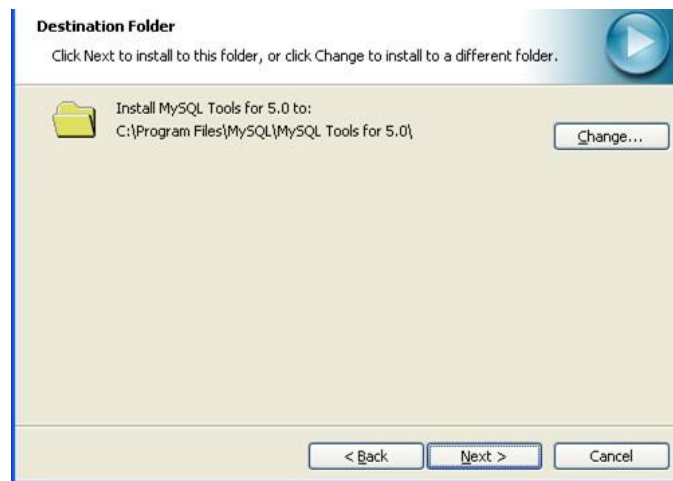
3. The setup wizard welcome page is shown below. Click Next.



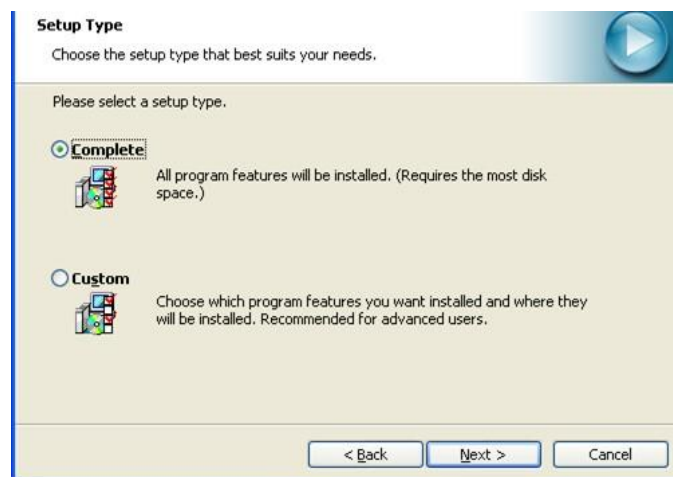
4. Accept the License Agreement and click Next.



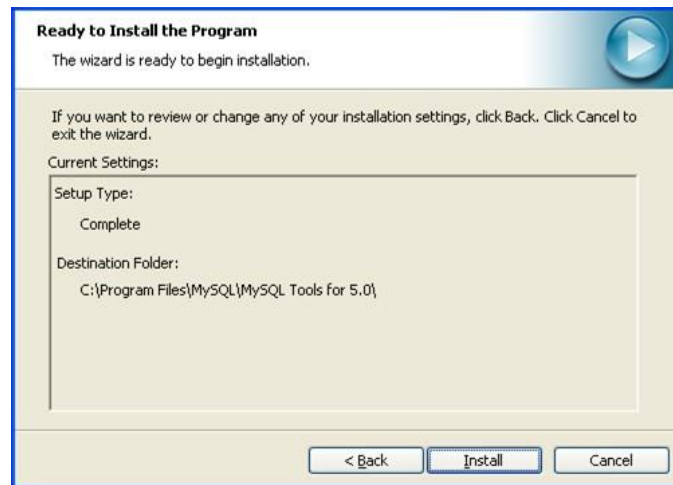
5. We just accept the given default destination folder. Our MySQL folder is C:\Program Files\MySQL in this case. Change accordingly. Click Next.



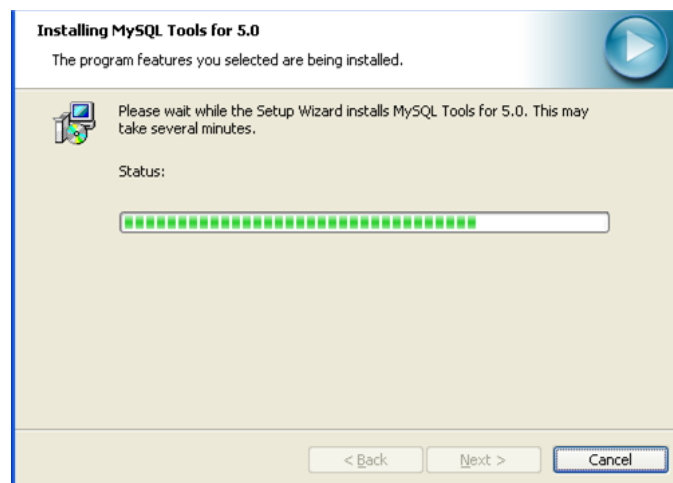
6. We select a complete setup type. Click Next.



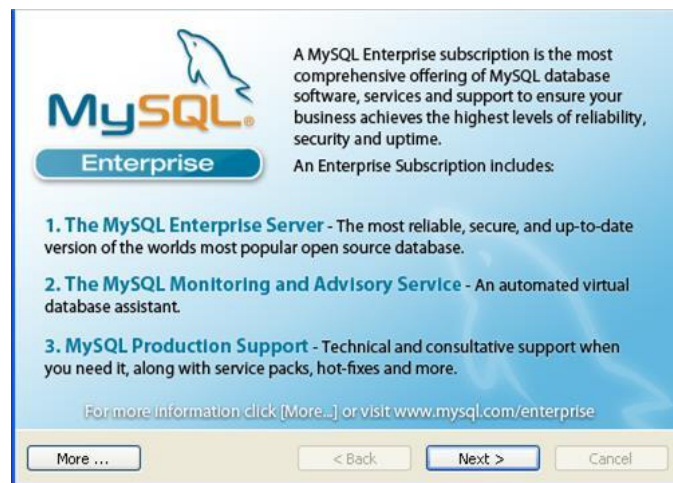
7. Click Install if you are ready. If you want to change the previously set settings, just hit the Back button.



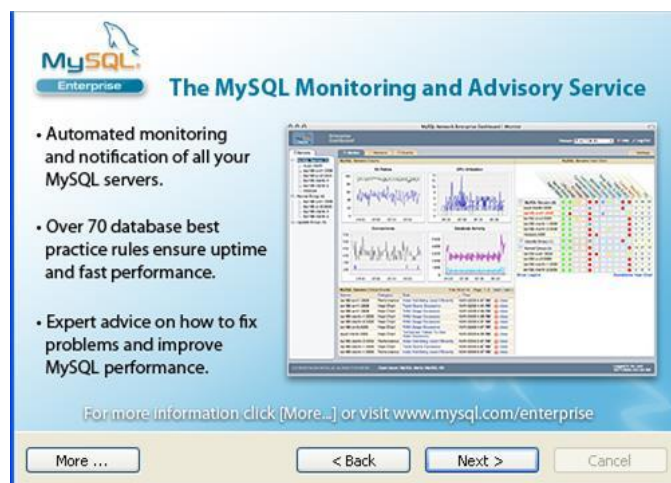
8. The installation is in progress.



9. Some advertisements. Just click Next.



10. Click Next.



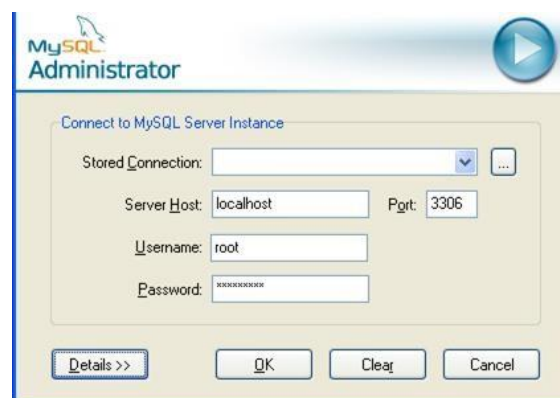
11. Click Finish.



12. Menus for MySQL GUI have been added to the Windows start menu.



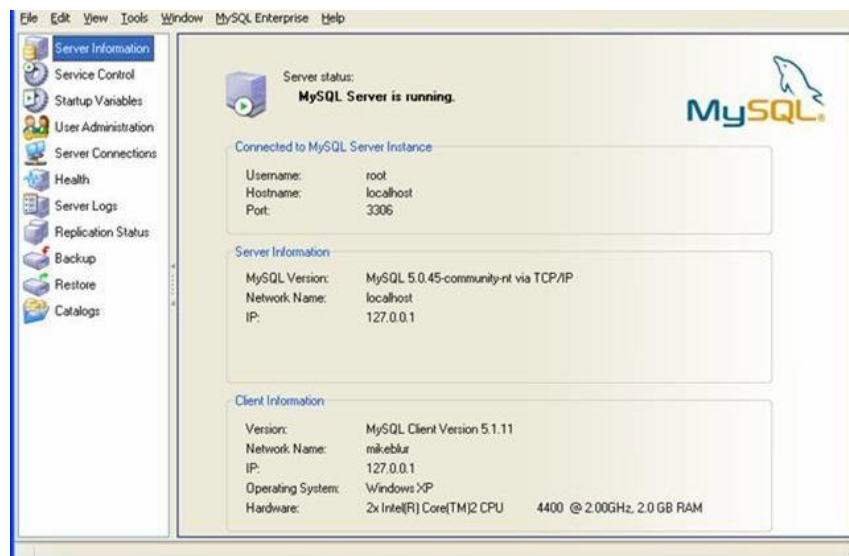
13. Let try MySQL Administrator. Click the MySQL Administrator. We are login as root, so enter the root password. If you already have MySQL user other than root then you can use it to login. The 3306 is a standard MySQL port. We use to login to localhost (127.0.0.1) where our MySQL has been installed. If you have MySQL installed on other server, use the server name or IP address. Fill in the required information as shown below and click OK.



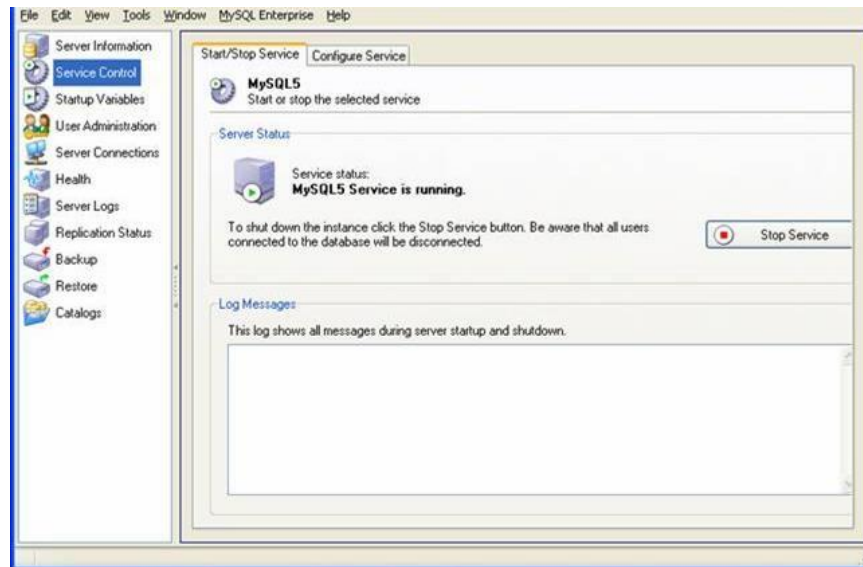
14. The Details is shown in the following Figure. We are not using them.



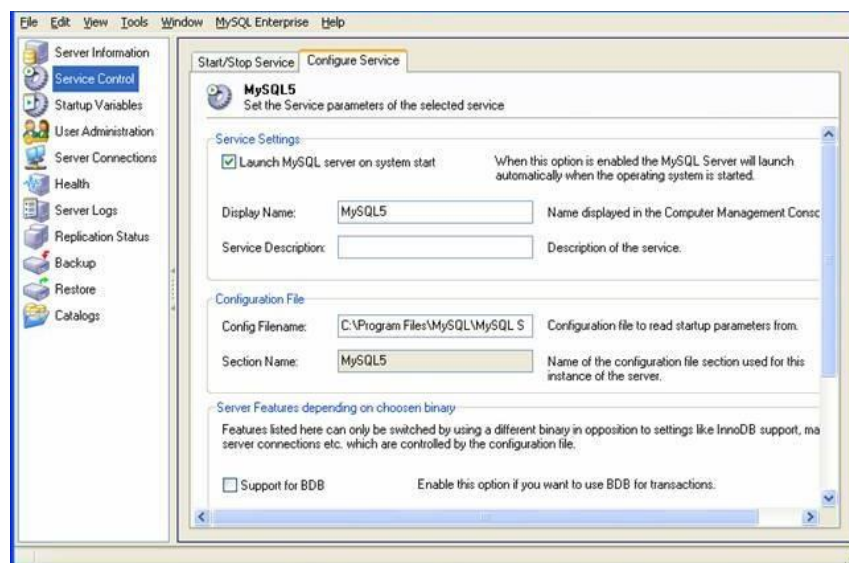
15. Let explore what we have in this MySQL GUI. First page is Server Information page. It is just read only information.



16. The following is the Service Control information page. We can stop and start the MySQL service here.

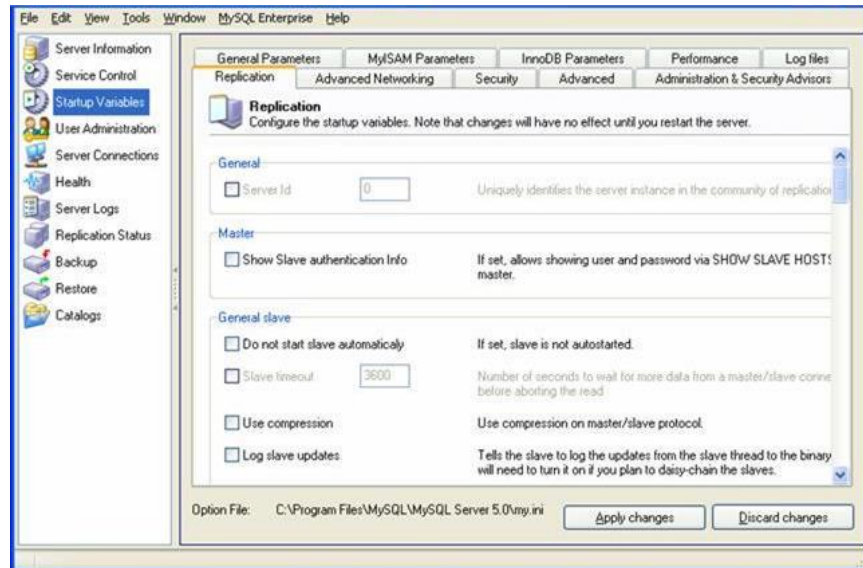


17. The Configure Service tab contains more information.

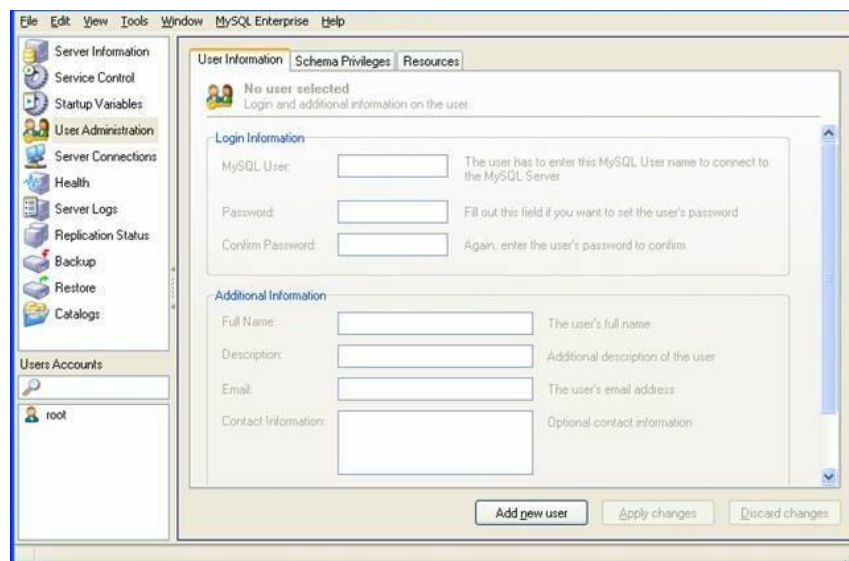


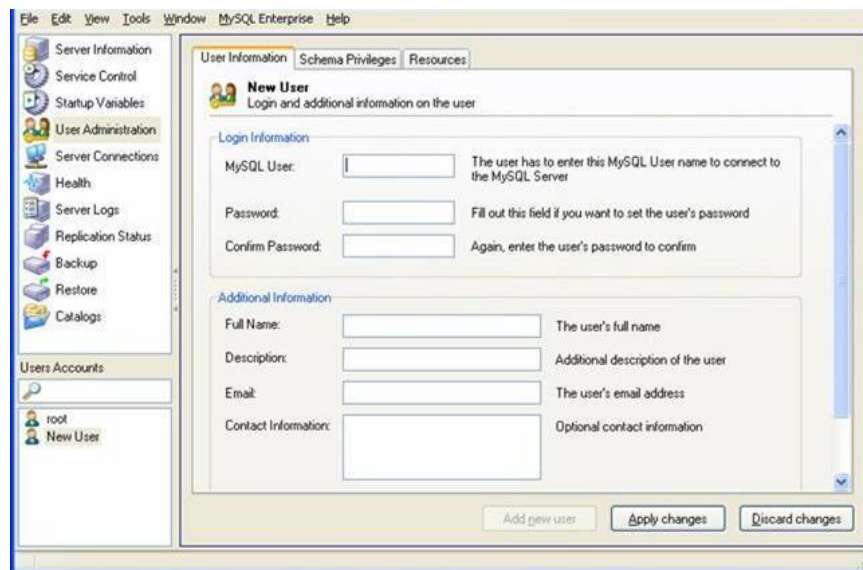


18. The following is Startup Variables page. Well, so many information. Explore all the tabs and there are many settings that can be set or unset.

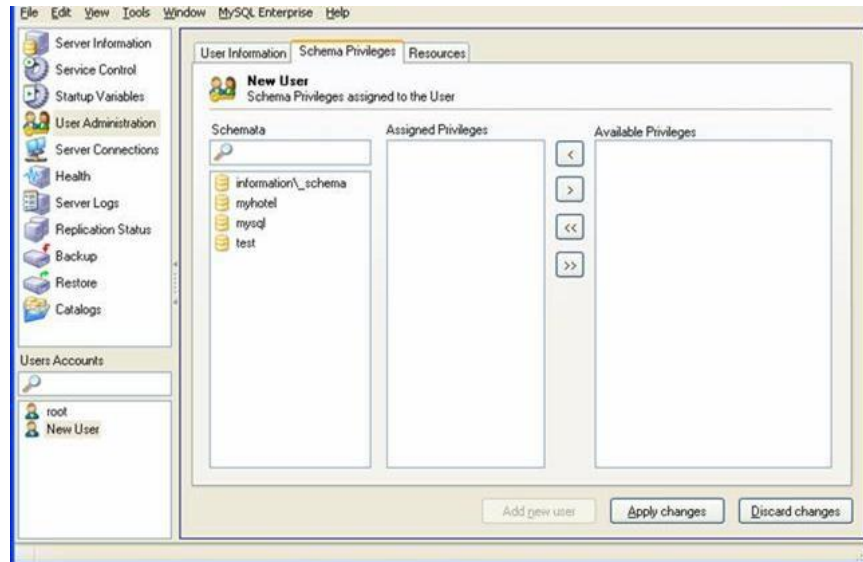


19. The following is User Administration page. We can add new MySQL user here and assign privileges.

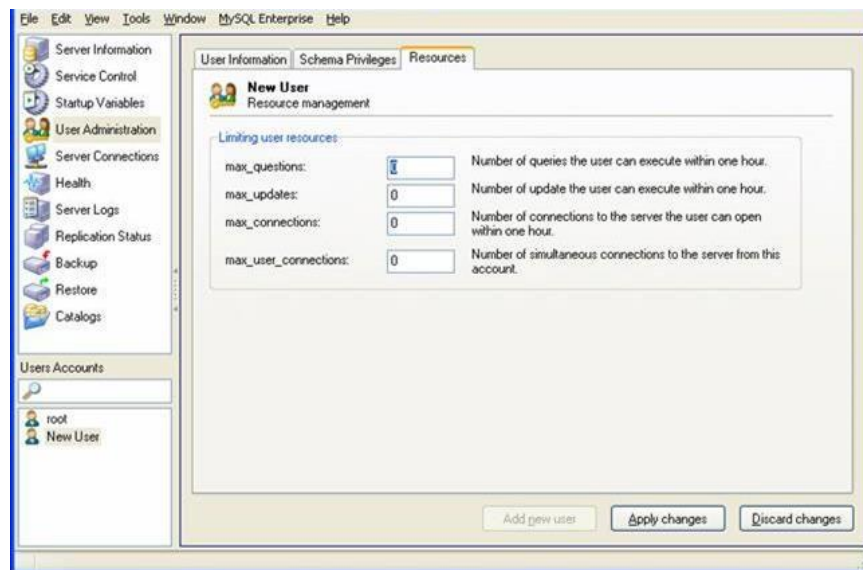




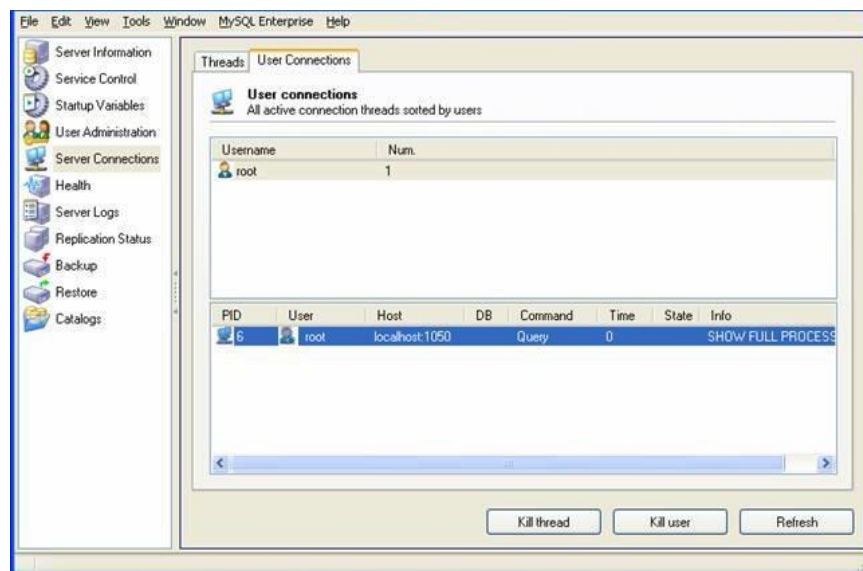
20. The following is schema privileges page. We can see available privileges assigned to the database schema or modify the current privileges.



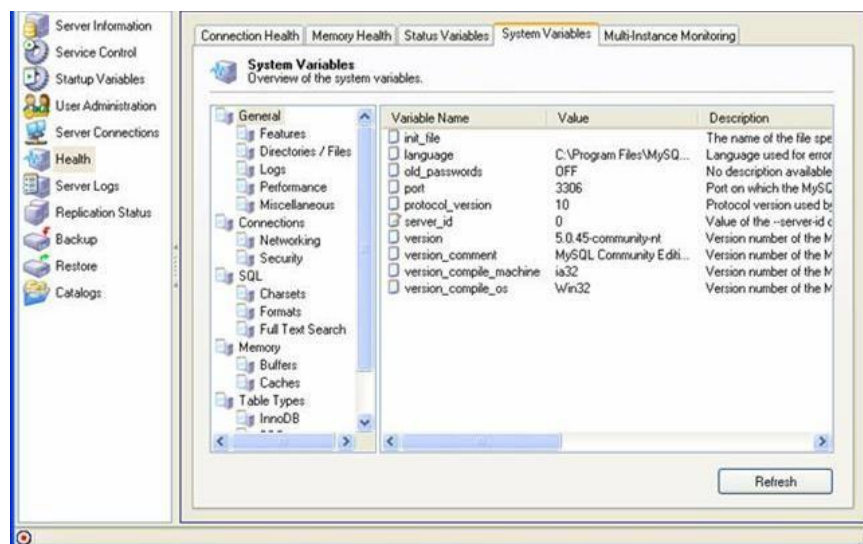
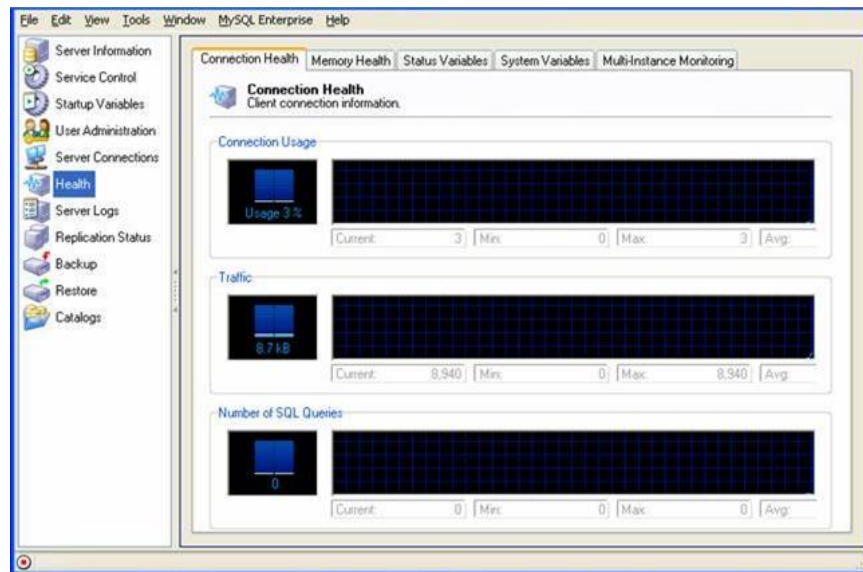
21. The following is a resources page.



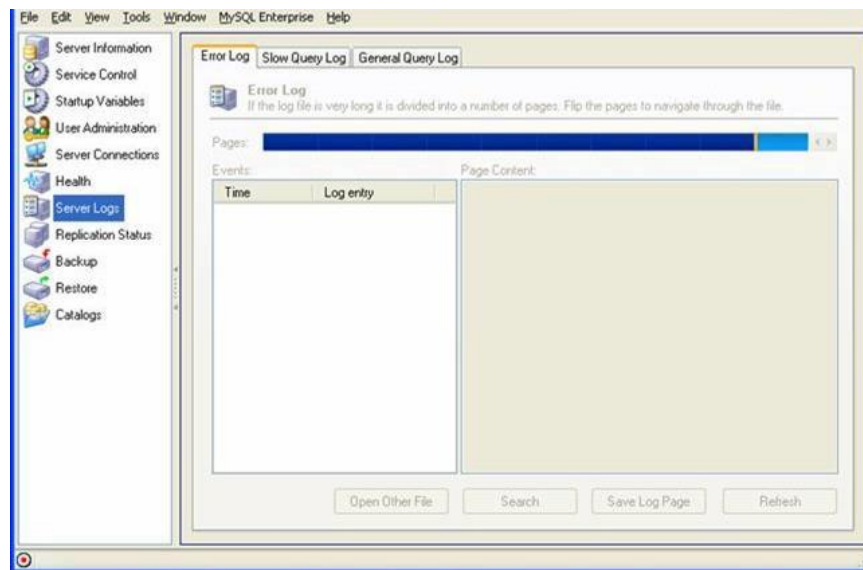
22. The following is the Server Connection information page.



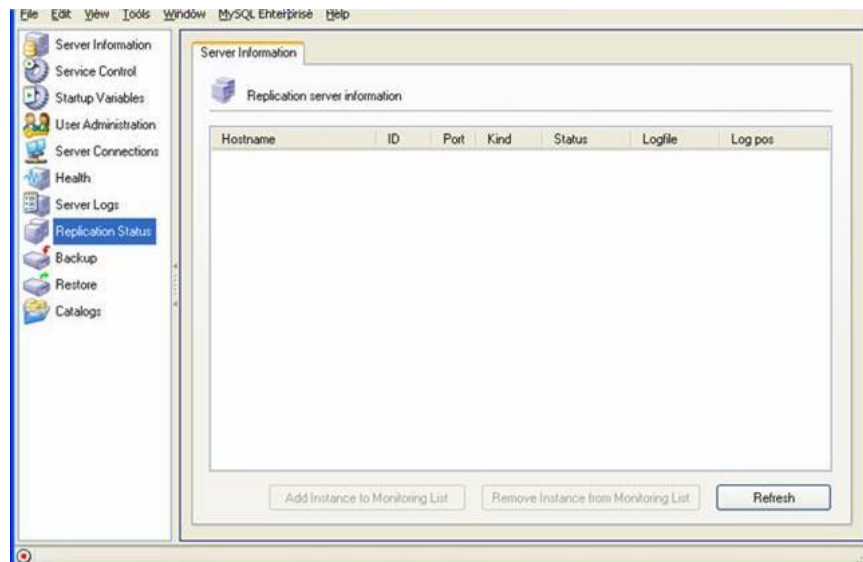
23. The following is MySQL health status page. Browse all the tabs.



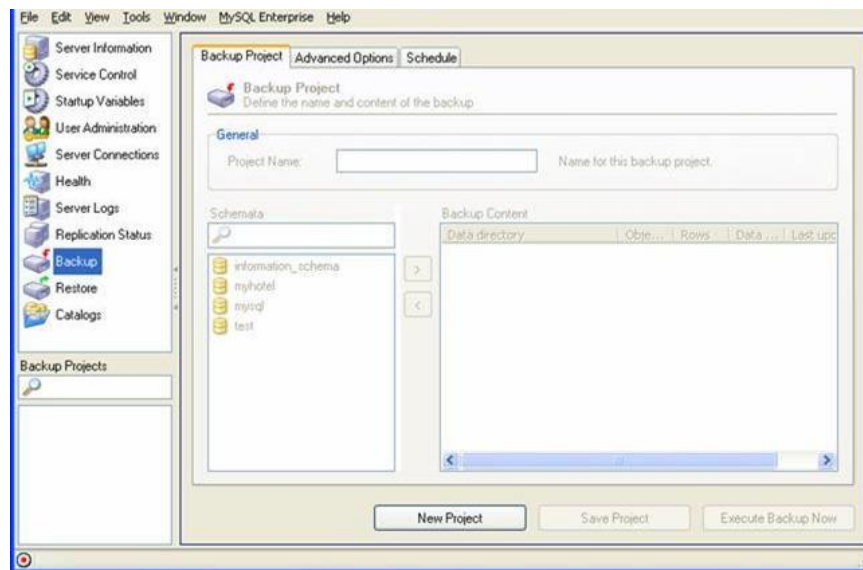
24. The following is MySQL Server logs page.



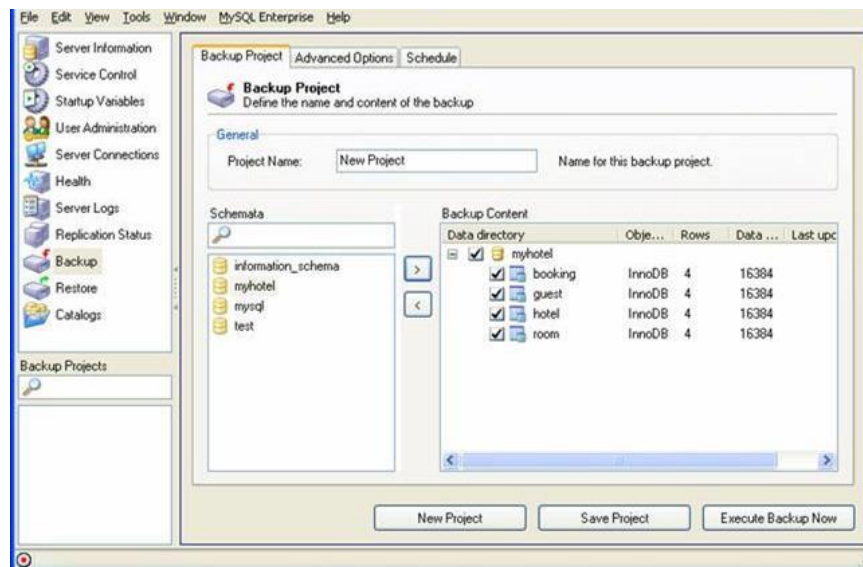
25. The following is Replication status page; if there is any replication implemented we can see it here.



26. The following is the backup information page. We can create a backup and schedule it.

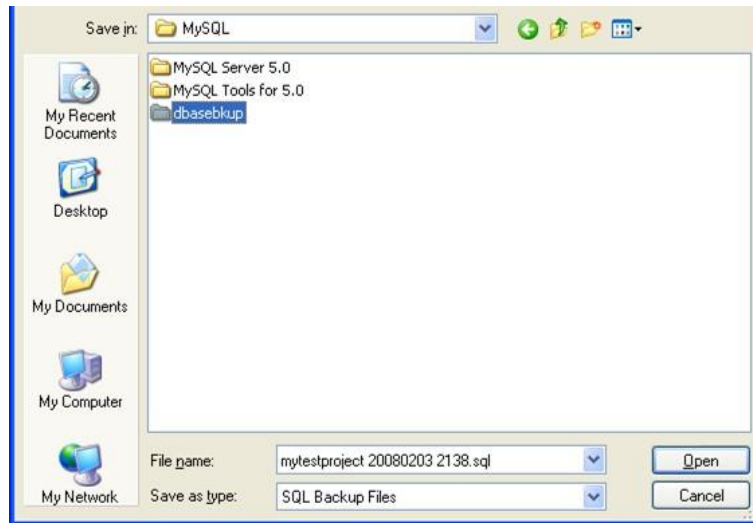


27. Let try making a backup. Click the New Project button, put a backup project name and select items to be backup. Click Execute Backup Now.



28. In this case, we put the backup file in dbasebkup folder.

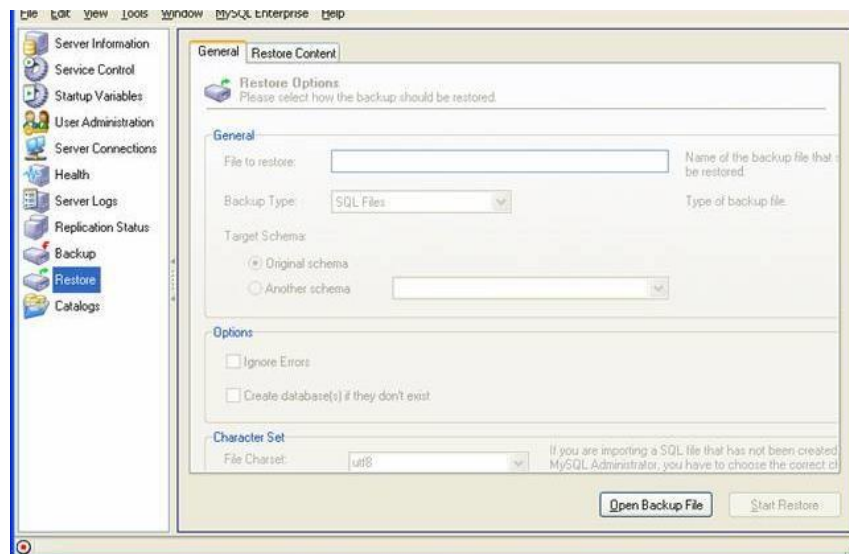




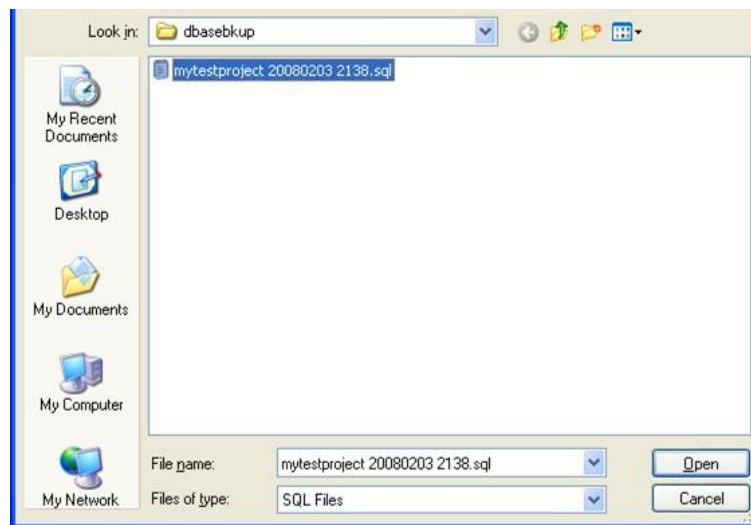
29. The following is a backup message after completing the backup process.



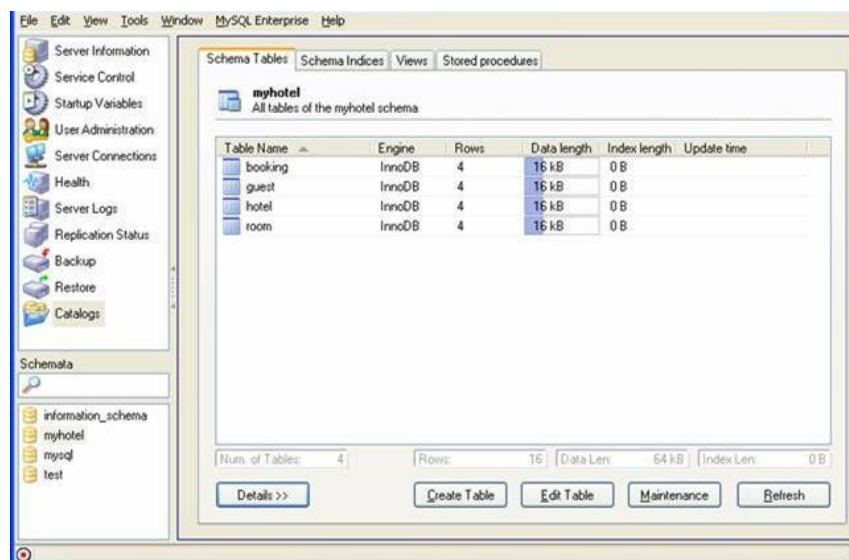
30. The following is the Restore page.



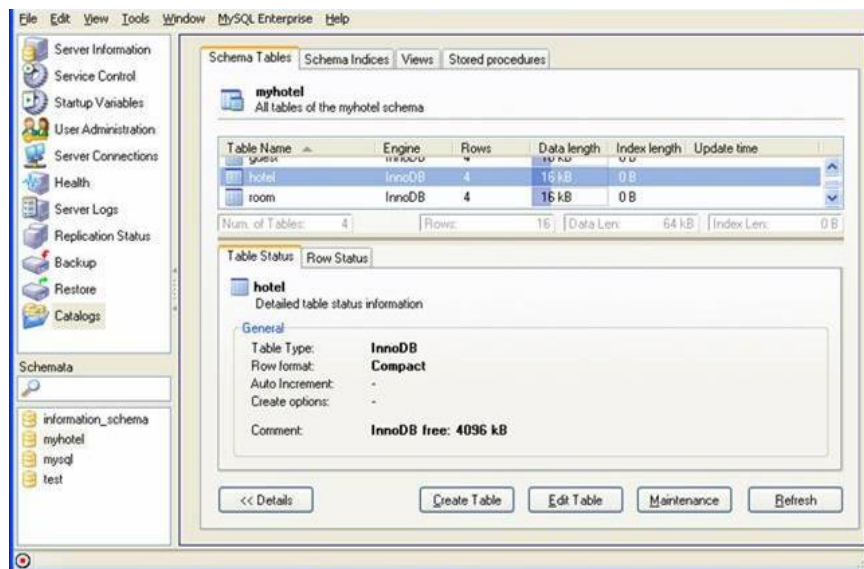
31. Just to see the backup file that we have made previously is functioning, click the Open Backup File button. We can restore this backup.



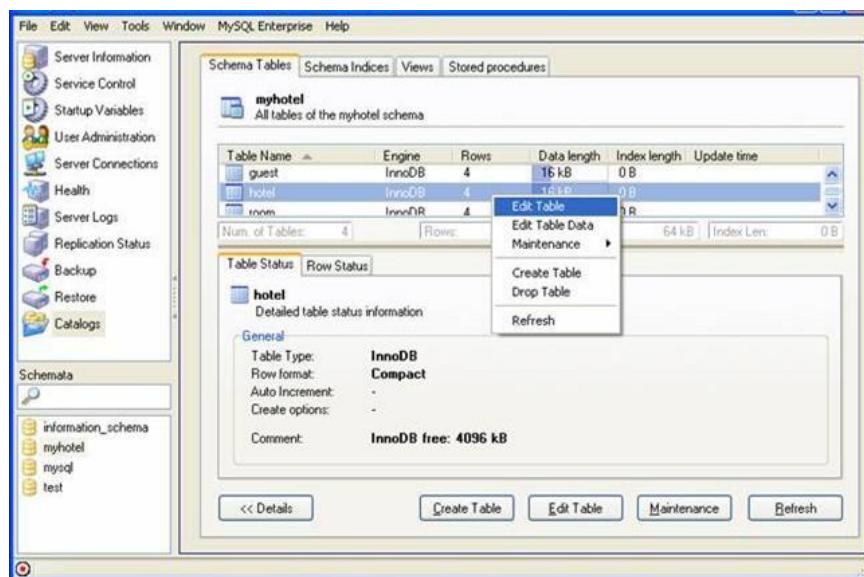
32. Finally, the Catalogs. Quite many things can be done here. Select one database under the Schemata. In this case we select myhotel database. Click the Details >> button.







33. We can edit a table in a database by selecting any row and right click mouse or use the buttons available at the bottom. In this case, select Edit Table context menu.



34. As shown in the following Figure, we can edit table properties. Apply Changes to save any changes that have been made.

Table Name:  Database:  Comment:

Columns and Indices Table Options Advanced Options

| Column Name | Datatype    | NOT NULL                            | AUTO INC                            | Flags  | Default Value | Comment |
|-------------|-------------|-------------------------------------|-------------------------------------|--|---------------|---------|
| hotelNo     | CHAR(7)     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input type="checkbox"/> UNIC |               |         |
| hotelName   | VARCHAR(20) | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input type="checkbox"/> UNIC | NULL          |         |
| city        | CHAR(20)    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input type="checkbox"/> UNIC |               |         |

Indices Foreign Keys Column Details

Name:  Datatype:  Default Value:

Column Options:

☒ Primary Key

☒ Not Null

☒ Auto Increment

Flags: ☐ BINARY ☐ ASCII ☐ UNICODE

Column Charset:  Column Collate:

Comment:

35. Next, click the Create Table button. Create a new table named mynewtable in **myhotel** database (or any other database available in your localhost). You can follow what have been shown in the following Figure. Click Apply Changes to save any changes that have been made.

Table Name:  Database:  Comment:

Columns and Indices Table Options Advanced Options

| Column Name  | Datatype    | NOT NULL                            | AUTO INC                 | Flags  | Default Value | Comment |
|--------------|-------------|-------------------------------------|--------------------------|--|---------------|---------|
| firstName    | CHAR(30)    | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input type="checkbox"/> UNIC | NULL          |         |
| lastName     | CHAR(20)    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input type="checkbox"/> UNIC |               |         |
| addressLine1 | VARCHAR(40) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> BINARY  |               |         |
| addressLine2 | VARCHAR(40) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> BINARY  |               |         |

Indices Foreign Keys Column Details

Name:  Datatype:  Default Value:

Column Options:

☐ Primary Key

☐ Not Null

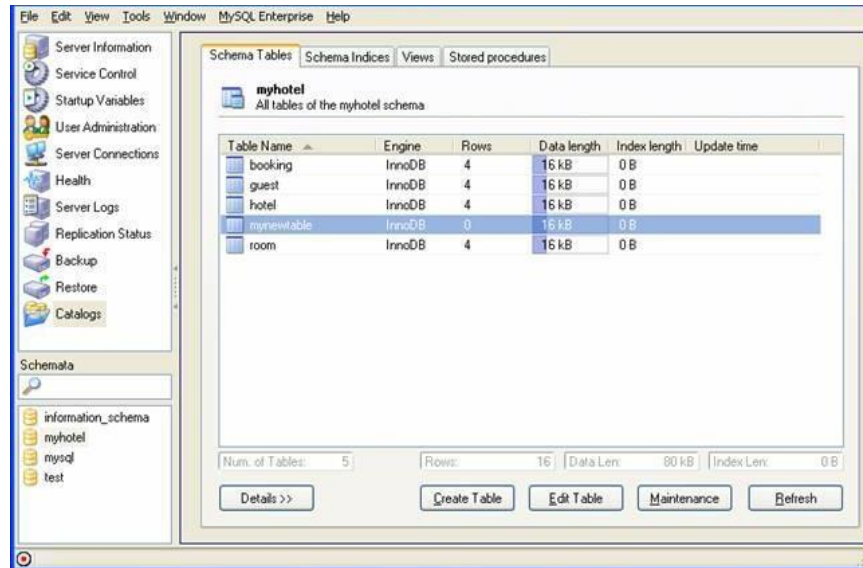
☐ Auto Increment

Flags: ☐ BINARY ☐ ASCII ☐ UNICODE

Column Charset:  Column Collate:

Comment:

36. Our new table can be seen in the following Figure.

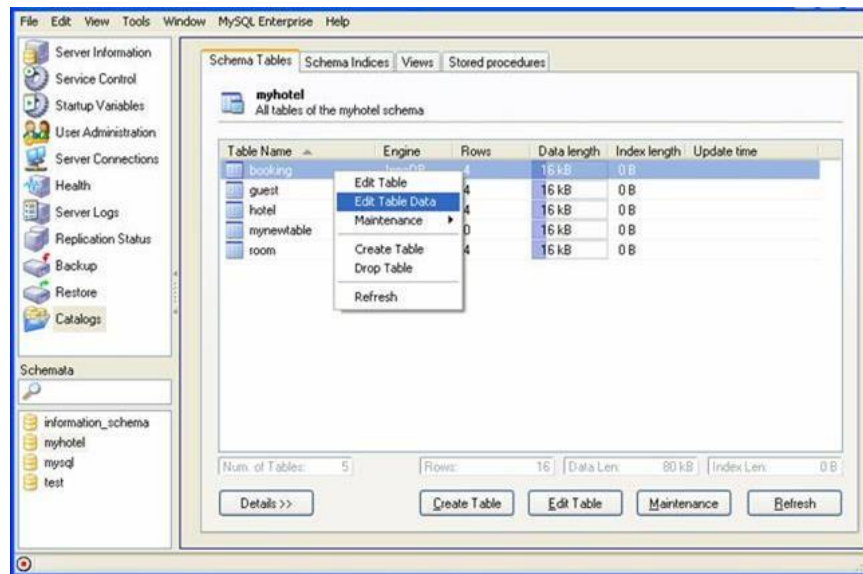


37. Let verify our previous step using MySQL Client Command Line console, to see the table that we previously created using MySQL management tools.

```
mysql> show tables;
+-----+
| Tables_in_myhotel |
+-----+
| booking            |
| guest              |
| hotel              |
| myneuttable        |
| room               |
+-----+
5 rows in set (0.00 sec)

mysql>
```

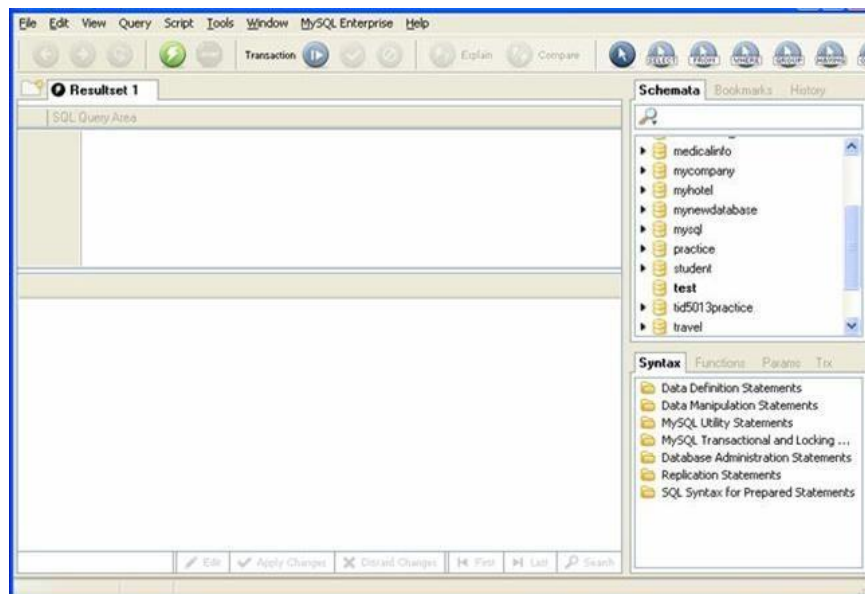
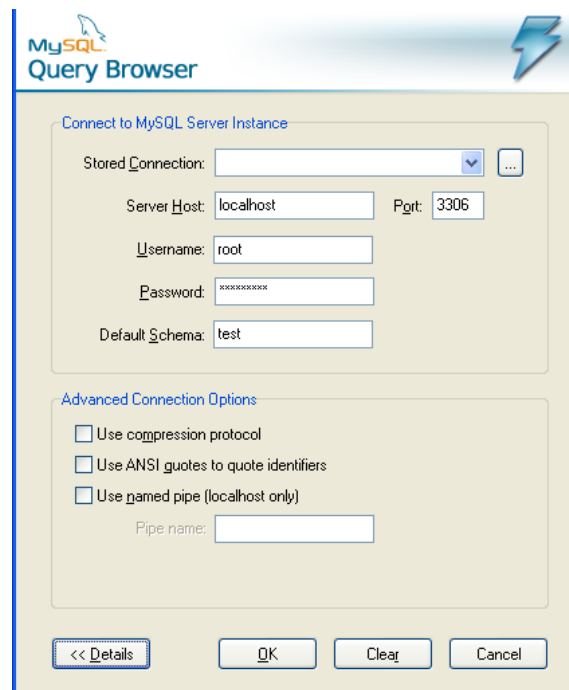
38. We can also edit the data table or records as shown in the following Figure.



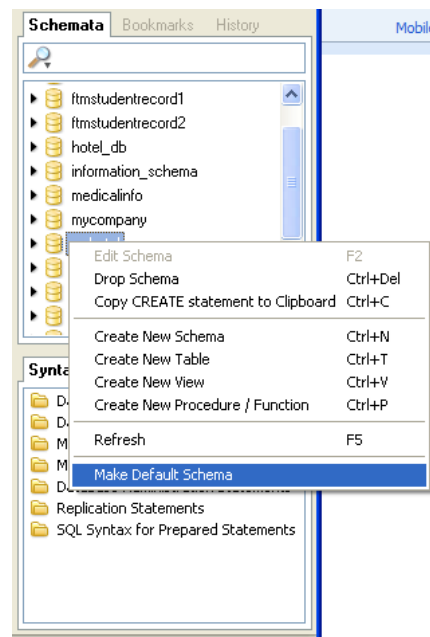
39. By choosing Edit Table Data, MySQL Query Browser will be launched as shown in the following Figure. MySQL Query Browser can also be accessed through Windows Start menu.



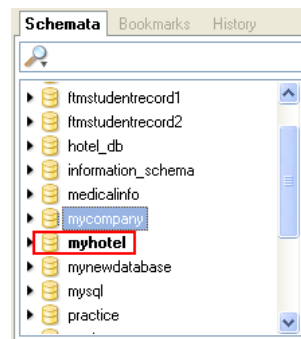
40. Fill in the information similar to login to MySQL Administrator previously done. Click OK.



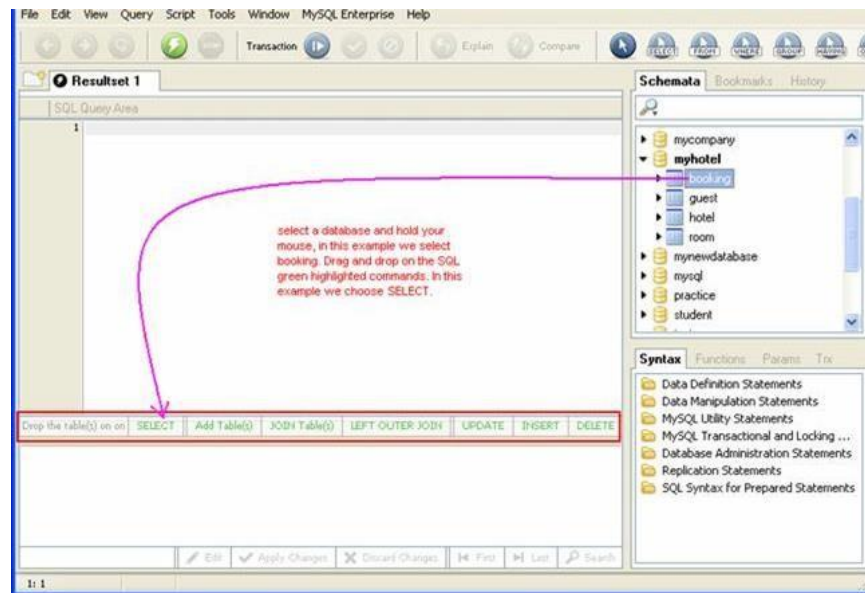
41. Select a database to make it a default schema as shown below. Select a database > right click mouse > Make Default Schema.



42. The selected database will be in bold.



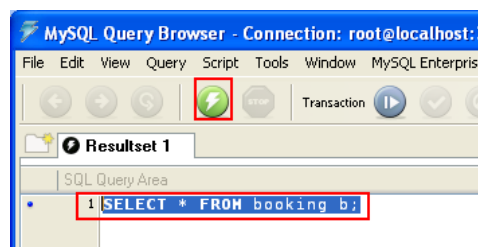
43. The following steps show how to edit data in a table. Expand the database node > select and hold the table to be edited > then drag to the left window (green SQL commands will be highlighted) > put it onto the SELECT statement (release your mouse onto the SELECT statement).



44. The following Figure shows another way on how to automate the SQL script creation.

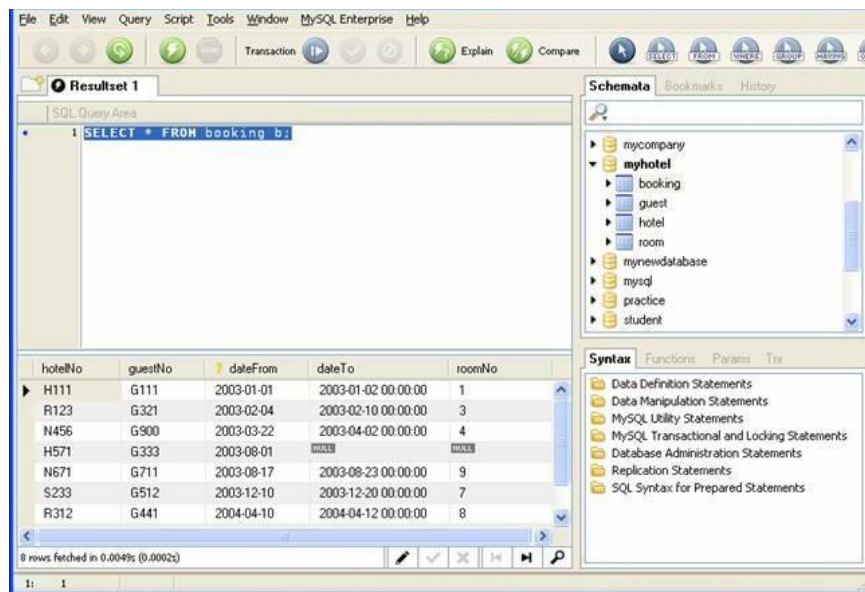


45. Then, the SQL SELECT statement can be seen in script window as shown below. Click the Execute button (🚀) to execute the script.

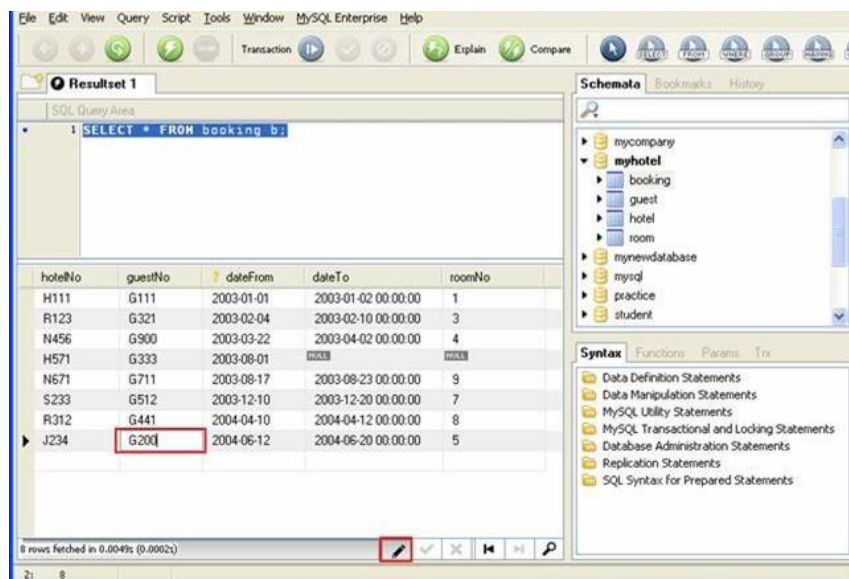


46. The query result will be displayed in Resultset window shown below.






47. Let edit some data in the table. Select the edit button (✎). Then, click any cell that you want to edit. For example, the G423 and then change it to G200. Press Enter.











48. The cell will be highlighted as shown below. Next, to save the changes, click the Apply Changes button (  ). Any error(s) will be displayed and the update process was failed else the changes were saved.

| hotelNo | guestNo | dateFrom   | dateTo              | roomNo |
|---------|---------|------------|---------------------|--------|
| H111    | G111    | 2003-01-01 | 2003-01-02 00:00:00 | 1      |
| R123    | G321    | 2003-02-04 | 2003-02-10 00:00:00 | 3      |
| N456    | G900    | 2003-03-22 | 2003-04-02 00:00:00 | 4      |
| H571    | G333    | 2003-08-01 | NULL                | NULL   |
| N671    | G711    | 2003-08-17 | 2003-08-23 00:00:00 | 9      |
| S233    | G512    | 2003-12-10 | 2003-12-20 00:00:00 | 7      |
| R312    | G441    | 2004-04-10 | 2004-04-12 00:00:00 | 8      |
| J234    | G200    | 2004-06-12 | 2004-06-20 00:00:00 | 5      |







8 rows fetched in 0.0049s (0.0002s)

49. The following Figure shows another example, the steps (1 > 2 > 3) to edit table data. We are editing the dateFrom column data.

| hotelNo | guestNo | dateFrom   | dateTo              |
|---------|---------|------------|---------------------|
| H111    | G111    | 2003-01-02 | 2003-01-02 00:00:00 |
| R123    | G321    | 2003-02-04 | 2003-02-10 00:00:00 |
| N456    | G900    | 2003-03-22 | 2003-04-02 00:00:00 |
| H571    | G333    | 2003-08-01 | NULL                |
| N671    | G711    | 2003-08-17 | 2003-08-23 00:00:00 |
| S233    | G512    | 2003-12-10 | 2003-12-20 00:00:00 |
| R312    | G441    | 2004-04-10 | 2004-04-12 00:00:00 |
| J234    | G123    | 2004-06-12 | 2004-06-20 00:00:00 |

8 rows fetched in 0.0035s (0.0002s)

50. To see those changes that have been made, click the Refresh button (  ).

At this stage you can create and manipulate a database, populate it with data and manipulating other database objects such as tables and records using MySQL GUI tools. It seems more productive than using the MySQL statements through MySQL Command Line Client console done previously. In the next tutorial we will [create and manipulate database](#) using this MySQL GUI tool.