1.3 Basic SQL Queries



This section will guide you to:

* Create a database called **School**
* Create a table for **Student**
* Use INSERT, SELECT, UPDATE, DELETE to manipulate data
* Use filters, sorting, and variables to query data

This guide has seven subsections, namely:

1.3.1 Using INSERT to add data

1.3.2 Using SELECT to view data

1.3.3 Using UPDATE to update data

1.3.4 Using DELETE to delete data

1.3.5 Using filter and sorting for displaying data

1.3.6 Using variables in queries

1.3.7 Pushing the code to GitHub repository

**Step 1.3.1:** Using INSERT to add data

* In the **Object Explorer,** expand **School->Tables.** Right click **Student** and choose **Select Top 1000 rows**
* Clear the contents of the Query window
* Type the following script:

**use school1**

**insert into student (name, class, address, email) values ('Tom', '7a', 'some address', 'tom@email.com');**

**insert into student (name, class, address, email) values ('Thomas', '7a', 'some address', 'thomas@email.com');**

**insert into student (name, class, address, email) values ('Manuel', '7a', 'some address', 'manuelm@email.com');**

* Press F5 to execute the script
* Three new rows will be added to the table

**Step 1.3.2:** Using SELECT to view the data

* In the **Object Explorer,** expand **School->Tables.** Right click **Student** and choose **Select Top 1000 rows**
* Clear the contents of the Query window
* Type the following script:

**use school1**

**select \* from student;**

**select name from student;**

* Press F5 to execute the script
* The first query will display all the columns and the second query will only display the Name column

**Step 1.3.3:** Using UPDATE to update data

* In the **Object Explorer,** expand **School->Tables.** Right click **Student** and choose **Select Top 1000 rows**
* Clear the contents of the Query window
* Type the following script:

**use school1**

**update student set class = '8a';**

**update student set name = 'Tom Clancy' where name = 'Tom';**

* Press F5 to execute the script
* The first query will change the value of Class in all the rows
* The second query will change the Name value for one row

**Step 1.3.4:** Using DELETE to delete data

* In the **Object Explorer,** expand **School->Tables.** Right click **Student** and choose **Select Top 1000 rows**
* Clear the contents of the Query window
* Type the following script:

**use school1**

**delete from student where name = 'Tom Clancy'**

**delete from student**

* Press F5 to execute the script
* The first query will delete the row for Tom Clancy
* The second query will delete all the rows in the table

**Step 1.3.5:** Using filter and sorting for displaying data

* In the **Object Explorer,** expand **School->Tables.** Right click **Student** and choose **Select Top 1000 rows**
* Clear the contents of the Query window
* Type the following script:

**use school1**

**select \* from student where name like 'm%';**

**select \* from student where email = 'thomas@email.com' and class='8a';**

**select \* from student order by name;**

* Press F5 to execute the script
* The first query will display rows where Name starts with M
* The second query will filter rows for an Email and Class value
* The third query will sort the rows on Name

**Step 1.3.6:** Using variables in queries

* In the **Object Explorer,** expand **School->Tables.** Right click **Student** and choose **Select Top 1000 rows**
* Clear the contents of the Query window
* Type the following script:

**declare @namevalue as varchar(100)**

**set @namevalue = 'Mitchell'**

**use school1**

**select \* from student where name = @namevalue**

* Press F5 to execute the script
* The query will filter the display of rows which have the value of Name as the value in the variable @namevalue

**Step 1.3.7:** Pushing the code to your GitHub repository

* Open your command prompt and navigate to the folder where you have created your files.

**cd <folder path>**

* Initialize your repository using the following command:

**git init**

* Add all the files to your Git repository using the following command:

**git add .**

* Commit the changes using the following command:

**git commit . -m “Changes have been committed.”**

* Push the files to the folder you initially created using the following command:

**git push -u origin master**