

Project Development - Database design

Useful Links:

1. <https://docs.google.com/document/d/1OzVG3b9UYPqUFS35BZhbm6AAXslOX01Ztm6ljBX1Ko0/edit>
2. <https://remotemysql.com/>
3. <https://www.freesqldatabase.com/freemysqldatabase/>

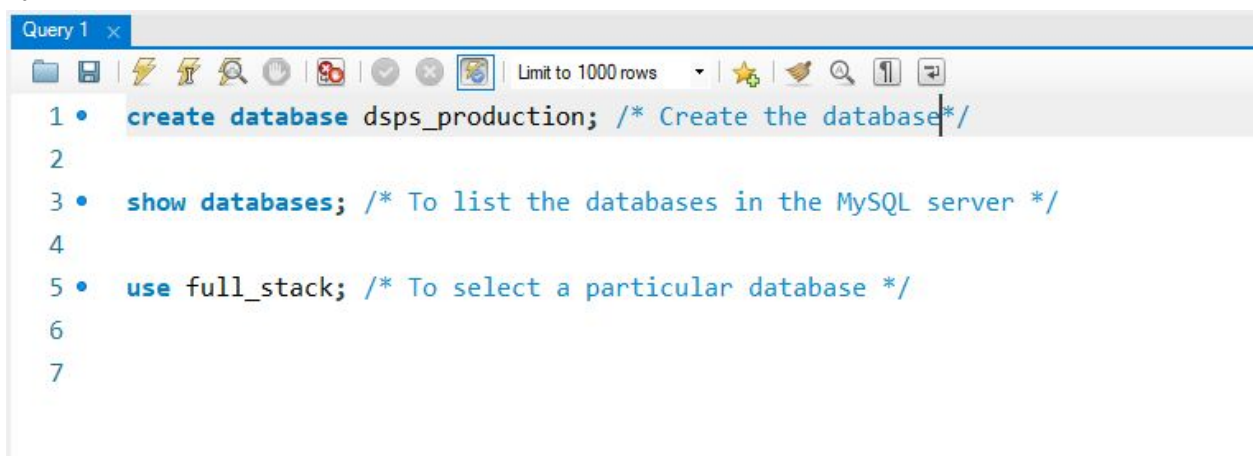
MySql Introduction and Queries

1. When you statement in databases can be represented as Query

Create the Database:

Used to create the database

Syntax: create database [If Not exists] databaseName



```
Query 1 x
Limit to 1000 rows
1 • create database dsps_production; /* Create the database*/
2
3 • show databases; /* To list the databases in the MySQL server */
4
5 • use full_stack; /* To select a particular database */
6
7
```

Create the Table:

Syntax: create table Table_Name(

Col_1_defination,
Col_2_defination,
Col_3_defination
.....

);

1. The column_name specifies the name of the column or attribute. Each column has a specific data type(char,varchar,integer,date,time,datetime.....)
2. Constraint : NOT NULL, Check, Unique, Primary Key and Foreign Key
 - a. NOT NULL : Then the column does not allow the NULL values
 - b. Check : Used to define the condition on the column
 - c. Unique : Used to stop duplicate values
 - d. Primary Key : Combination of Not null and Unique
 - e. Foreign Key : Is used to maintain the relationship between two tables

```
/* Create the Table */  
create table tbl_Student(  
    studentId int,  
    studentName varchar(100),  
    studentPwd varchar(20),  
    emailID varchar(100),  
    mobileNumber bigint  
);
```

```
/* Describe about the table */  
describe tbl_Student;
```

Insert the Data to the table:

By using insert query we can insert the records or tuples into the table

Syntax: insert into Table_Name(col1,col2,col3....) values (v1,v2,v3....)

```
/* Insert the data */  
insert into tbl_Student(studentId,studentName,studentPwd,emailID,mobileNumber) values  
(1,'Harsha','harsha123','harsha@dhyanaahita.org',9988776644)
```

```
/* To select the data */  
select * from tbl_Student;
```

```

/* With only few columns of the table */
/* Only two columns */
select studentName,studentPwd from tbl_Student;

/* Three Columns */
select studentName,studentPwd,emailID from tbl_student;

/*
    auto_increment : the values will be supplied from MySQL database
    not null : It will not allows to insert NULL values into the column
    unique : it will not allows the duplicate values
*/

create table tbl_Emp(
    Id int auto_increment,
    empName varchar(100) not null,
    empAddress varchar(100) not null,
    emailID varchar(50) not null,
    mobileNumber bigint unique,
    primary key(Id)
);

/* Insert a Single Record */
insert into tbl_Emp(empName,empAddress,emailID,mobileNumber) values('Anil','Hyd','anil@dhyanaahita.org',9988776655);

/* Insert Multiple records */
insert into tbl_Emp(empName,empAddress,emailID,mobileNumber) values('harsha','hud','harsha@dhyanaahita.org',9988776633),
('Ajay','hyd','ajay@dhyanaahita.org',8877661122),('Arvind','hyd','arvind@dhyanaahita.org',9988776622);

/* Selct the data */
select * from tbl_Emp;

```

Update the Data:

Syntax: Update table_name set Col_name = Val1, Col_name = Val2[where clause]

```

/* Update Data */
/* will be all records will be updated */
update tbl_Emp set
empName = 'Anil Kumar';
/* Will update only single record which matches the Id = 1 */
update tbl_Emp set
empName = 'Anil Kumar'
where Id = 1

```

Delete the Data:

Syntax: delete from Table_name [where Condition];

```

/* Delete only specific records */
delete from tbl_Emp;
/* Delete only specific records */
delete from tbl_Emp where Id = 11;

```

Select the Data (Read the Data):

The select statements allow you to read the data from one or more than one table.

Syntax: select * from tableName or
Select ColList from tableName;

Select Data (Sorting Data)

Order by clause allows you to sort the selected data

Syntax: select Select_list from tablename order by columnName[ASC|DESC]

```
/* order by Clause */  
/* Sorted Order */  
/* By default the below query will gives output in asending order */  
select * from tbl_Emp  
order by empName;  
  
/*The result will be in desending order */  
select * from tbl_Emp  
order by empName desc;  
  
/* To list the all the tables */  
show tables;
```

Sample Database : <http://tiny.cc/Sample-Db>

Download from the above link and extract on your computer. After you will get the file as mysqlsampledatabase and Open file by double clicking.