MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by Oracle Company.

What is Database?

A database is an application that stores the organized collection of records. It can be accessed and manage by the user very easily. It allows us to organize data into tables, rows, columns, and indexes to find the relevant information very quickly. Each database contains distinct API for performing database operations such as creating, managing, accessing, and searching the data it stores. Today, many databases available like MySQL, Sybase, Oracle, MongoDB, PostgreSQL, SQL Server, etc. In this section, we are going to focus on MySQL mainly.

create a database name "employeedb" using the following statement:

mysql> CREATE DATABASE employeesdb;

We can review the newly created database using the below query that returns the database name, character set, and collation of the database:

mysql> SHOW CREATE DATABASE employeedb;

We can check the created database using the following query:

mysql> SHOW DATABASES;

Finally, we can use the below command to access the database that enables us to create a table and other database objects.

mysql> USE emplyeedb;

This will make the database as current database in which we are working

MySQL Workbench

It is a visual database designing or GUI tool used to work with database architects, developers, and Database Administrators. This visual tool supports SQL development, data modeling, data migration, and comprehensive administration tools for server configuration, user administration, backup, and many more. It allows us to create new physical data models, E-R diagrams, and SQL development (run queries, etc.).

To create a new database using this tool, we first need to launch the MySQL Workbench

MySQL CREATE TABLE

What is table

A table is used to organize data in the form of rows and columns and used for both storing and displaying records in the structure format. It is similar to worksheets in the spreadsheet application. A table creation command requires three things:

Name of the table

Names of fields

Definitions for each field

MySQL Command Line Client

MySQL allows us to create a table into the database by using the CREATE TABLE command. Following is a generic syntax for creating a MySQL table in the database.

CREATE TABLE [IF NOT EXISTS] table\_name(

column\_definition1,

column\_definition2,

........,

table\_constraints

);

Sql command to create a table students having column rno and name

create table students(rno int,name varchar(20))

show tables

Sql command to insert record into students table

insert into students values(11,'rajesh')

insert into students values(12,'rajnish')

Sql command to view the records

select \* from students

This will show me all the records from student table

Assignment

1-Create a table employee table having columns empno , empname, designation and salary

2-Write a query to insert 5 records inside employees

3-Write a sql query to view employee records

Create a table customer having columsn customerid, customername, mobileno and emailid

Insert and view the records

primary key

used to uniquely identify a record

create a table student having column rollnumber ,name

and declare the rollnumber as primary key

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auto\_increment : used to automatically increment the value

create a table product having column productid , productname

and declare the productid as primary key and auto increment

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not null :

create a table patient having column patientid primary key autoincrement ,

patient name not null , mobileno numeric

create table patient(patient\_id int primary key auto\_increment,

patient\_name varchar(100) not null, mobile numeric)

insert into patient(patient\_name,mobile) values('rajan',12345)

insert into patient(patient\_name) values('ramesh')

select \* from patient

use itpt;

show tables;

select \* from student;

/\* query to update name='sania' whose rno=2 \*/

update student set name='sania' where rno=2;

select \* from student;

select \* from product;

select \* from patient

/\* write a update query to update mobile of patientname='ramesh'

\*/

update patient set mobile=1234567890 where patient\_name='ramesh';

select \* from patient

insert into patient(patient\_name) values('rajan')

/\*query to update mobile of patientname=rajan and patient\_id=3\*/

update patient set mobile=222 where patient\_name='ramesh'

or patient\_id=1

select \* from patient

/\* create customer table and insert some record and practice

update query on customer table \*/