**Create Table**

To create the **Employees** table in TEST database, use the following steps −

**Step 1**

Open a **Command Prompt** and change to the installation directory as follows −

C:\>

C:\>cd Program Files\MySQL\bin

C:\Program Files\MySQL\bin>

**Step 2**

Login to database as follows

C:\Program Files\MySQL\bin>mysql -u root -p

Enter password: \*\*\*\*\*\*\*\*

mysql>

**Step 3**

Create the table **Employee** in **TEST** database as follows −

mysql> use TEST;

mysql> create table Employees (

id int not null,

age int not null,

first varchar (255),

last varchar (255)

);

Query OK, 0 rows affected (0.08 sec)

mysql>

**Create Data Records**

Finally you create few records in Employee table as follows −

mysql> INSERT INTO Employees VALUES (100, 18, 'Zara', 'Ali');

Query OK, 1 row affected (0.05 sec)

mysql> INSERT INTO Employees VALUES (101, 25, 'Mahnaz', 'Fatma');

Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Employees VALUES (102, 30, 'Zaid', 'Khan');

Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Employees VALUES (103, 28, 'Sumit', 'Mittal');

Query OK, 1 row affected (0.00 sec)

mysql>

**Accessing a Database**

Here is an example which shows how to access TEST database using Servlet.

// Loading required libraries

import java.io.\*;

import java.util.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

import java.sql.\*;

public class DatabaseAccess extends HttpServlet{

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// JDBC driver name and database URL

static final String JDBC\_DRIVER = "com.mysql.jdbc.Driver";

static final String DB\_URL="jdbc:mysql://localhost/TEST";

// Database credentials

static final String USER = "root";

static final String PASS = "password";

// Set response content type

response.setContentType("text/html");

PrintWriter out = response.getWriter();

String title = "Database Result";

String docType =

"<!doctype html public \"-//w3c//dtd html 4.0 " + "transitional//en\">\n";

out.println(docType +

"<html>\n" +

"<head><title>" + title + "</title></head>\n" +

"<body bgcolor = \"#f0f0f0\">\n" +

"<h1 align = \"center\">" + title + "</h1>\n");

try {

// Register JDBC driver

Class.forName("com.mysql.jdbc.Driver");

// Open a connection

Connection conn = DriverManager.getConnection(DB\_URL, USER, PASS);

// Execute SQL query

Statement stmt = conn.createStatement();

String sql;

sql = "SELECT id, first, last, age FROM Employees";

ResultSet rs = stmt.executeQuery(sql);

// Extract data from result set

while(rs.next()){

//Retrieve by column name

int id = rs.getInt("id");

int age = rs.getInt("age");

String first = rs.getString("first");

String last = rs.getString("last");

//Display values

out.println("ID: " + id + "<br>");

out.println(", Age: " + age + "<br>");

out.println(", First: " + first + "<br>");

out.println(", Last: " + last + "<br>");

}

out.println("</body></html>");

// Clean-up environment

rs.close();

stmt.close();

conn.close();

} catch(SQLException se) {

//Handle errors for JDBC

se.printStackTrace();

} catch(Exception e) {

//Handle errors for Class.forName

e.printStackTrace();

} finally {

//finally block used to close resources

try {

if(stmt!=null)

stmt.close();

} catch(SQLException se2) {

} // nothing we can do

try {

if(conn!=null)

conn.close();

} catch(SQLException se) {

se.printStackTrace();

} //end finally try

} //end try

}

}

Now let us compile above servlet and create following entries in web.xml

....

<servlet>

<servlet-name>DatabaseAccess</servlet-name>

<servlet-class>DatabaseAccess</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>DatabaseAccess</servlet-name>

<url-pattern>/DatabaseAccess</url-pattern>

</servlet-mapping>

....

Now call this servlet using URL http://localhost:8080/DatabaseAccess which would display following response −

**Database Result**

ID: 100, Age: 18, First: Zara, Last: Ali

ID: 101, Age: 25, First: Mahnaz, Last: Fatma

ID: 102, Age: 30, First: Zaid, Last: Khan

ID: 103, Age: 28, First: Sumit, Last: Mittal