Node JS Database connectivity

Node.js – Connect to MySQL Database

Connect to MySQL database in Node.js using mysql.createConnection method with an example Node.js program.

Node.js provides a module to connect to MySQL database and perform MySQL operations.

Steps to Connect to MySQL Database via Node.js

Following is a step-by-step guide to connect to MySQL database with an example.

Step 1: Make sure that MySQL is configured properly. Collect the information about IP Address, User Name and Password.

Step 2: In your node.js program, include mysql module.

```
var mysql = require('mysql');
```

MySQL module has to be installed before it can be used. Otherwise you would get an error.

To install mysql module: **npm install mysql.**

Create handler: **var mysql=require('mysql')**

Step 3: Create a connection variable with IP Address, User Name and Password collected in Step 1.

```
var con = mysql.createConnection({
  host: "localhost",    // ip address of server running mysql
  user: "arjun",    // user name to your mysql database
  password: "password"    // corresponding password
});
```

Step 4: Make a call to connect function using connection variable, that we created in the previous step.

```
con.connect(function(err) {
  if (err) throw err;
  console.log("Connected!");
});
```

Function provided as argument to connect is a callback function. After node.js has tried with connecting to MySQL Database, the callback function is called with the resulting information sent as argument to the callback function.

Read Operation:

```
var mysql = require('mysql');
 // create a connection variable with the details required
var con = mysql.createConnection({
  host: "localhost",    // ip address of server running mysql
  user: "root",    // user name to your mysql database
  password: "12345",  // corresponding password
```

```
  database:"wdd"
});

// connect to the database.
con.connect(function(err) {
   con.query("select empid from emp", function (err, result, fields) {
   console.log(result);
  console.log("Connected!");
});
});
```

Insert Operation

```
// include mysql module
var mysql = require('mysql');

// create a connection variable with the required details
var con = mysql.createConnection({
  host: "localhost",       // ip address of server running mysql
  user: "root",  // user name to your mysql database
  password: "12345",   // corresponding password
  database: "wdd" // use the specified database
});

// make to connection to the database.
con.connect(function(err) {
   con.query("INSERT INTO emp (empid, name) values (120,'Arun')", function (err, result,
fields) {
          console.log(result);
  });
});
```

Update operation:

```
// include mysql module
var mysql = require('mysql');
 // create a connection variable with the required details
var con = mysql.createConnection({
  host: "localhost",    // ip address of server running mysql
  user: "root",    // user name to your mysql database
  password: "12345", // corresponding password
  database: "wdd" // use the specified database
});

// make to connection to the database.
con.connect(function(err) {
  if (err) throw err;
  // if connection is successful
```

```
  con.query("UPDATE students SET marks=84 WHERE marks=74", function (err, result, fields) {
   console.log(result);
  });
});
```

Delete Operation:

```
// include mysql module
var mysql = require('mysql');
 // create a connection variable with the required details
var con = mysql.createConnection({
  host: "localhost",    // ip address of server running mysql
  user: "root",    // user name to your mysql database
  password: "12345", // corresponding password
  database: "wdd" // use the specified database
});

// make to connection to the database.
con.connect(function(err) {
  if (err) throw err;
  // if connection is successful
  con.query("DELETE FROM students WHERE rollno>10", function (err, result, fields) {
console.log(result);
  });
});
```