WebYog

Coding Round

Rohit Kashyap

Problem Statement : Write a program in C/C++, Nodejs or Python that connects to a MySQL server and checks if the InnoDB plugin is enabled on it. If so, your program should print the total number of disk writes by MySQL.

Solution stack used : Node.js

Answers:

a. How should we run and test the project?

Ans. Please follow following steps to run this project:

1. Install all required software tools and packages mentioned in Ans (b).
2. Make sure MySQL Server is running on the system. Following these instructions.
3. Open Node.js Command Prompt
4. Navigate to folder or location on system where program file "innoDB.js" is saved.
5. Type the following command on Node Command prompt
   "node innoDB.js"
6. Status of InnoDB storage engine and disk writes will be displayed on the console.

b. What development tools did you do use to complete the project?

Ans. To run this project following are the prerequisites:

1. MySQL Server
   Downloaded from : http://dev.mysql.com/downloads/
2. Node.js
   Downloaded and installed from : nodejs.org
3. MySQL Plugin for Node.js
   This can be installed from Node.js command prompt with following command
   "npm install mysql"
   Installation instructions available at :
   https://www.npmjs.com/package/mysql
4. Notepad

c. How did you test & debug the project?

Ans. I tested and debugged the project by:

1. Running project when MySQL Server was running.
   Result : Status of InnoDB engine and disk write status shown.

2. Running project when MySQL Server was not running.
   Result: error thrown
   Modification done: Added message for starting MySQL Server before running program.
3. Checking status of InnoDB Engine info and disk write status in MySQL console and matching it with received output on Node.js prompt.

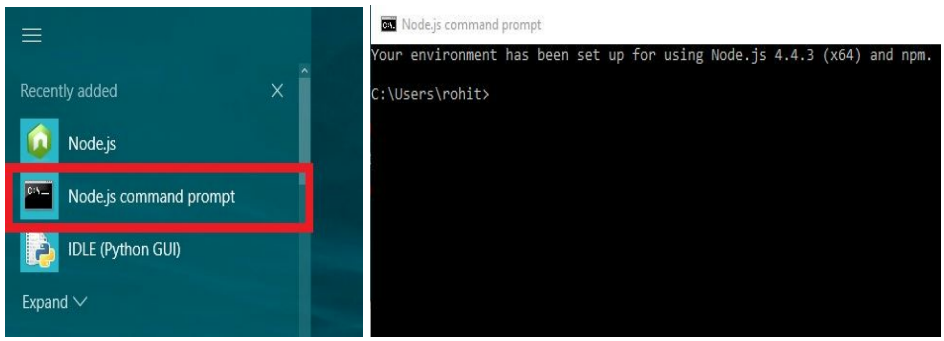
d. What other features can you think of that will enhance the program?

Ans. Going by the problem statement, I have covered almost all the feature required.
Other features that can be added to enhance the program are:

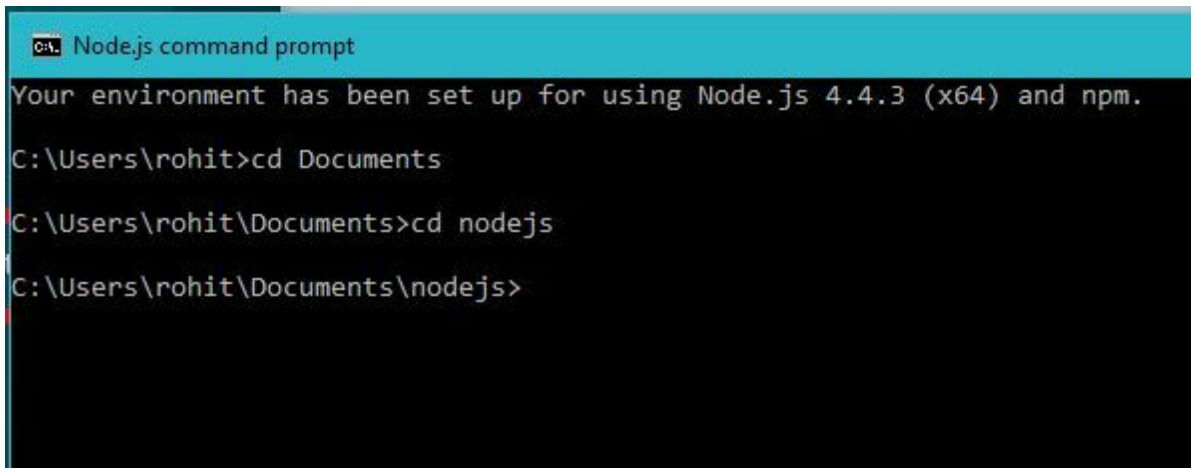
1. Pooling connections to enable status check on larger systems and to scale application.
2. Functionality for time based repetitive check for InnoDB status and disk_write status to get status of connection that will help in monitoring and to judge connection after attempting to reconnect following a connection loss.

Screenshots

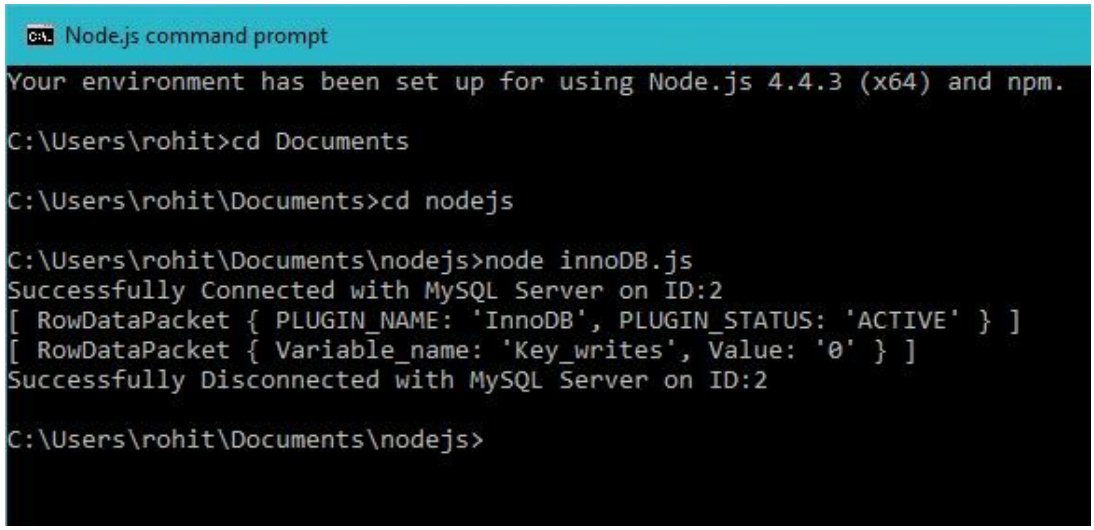
1. Finding and starting Node.js Command Prompt



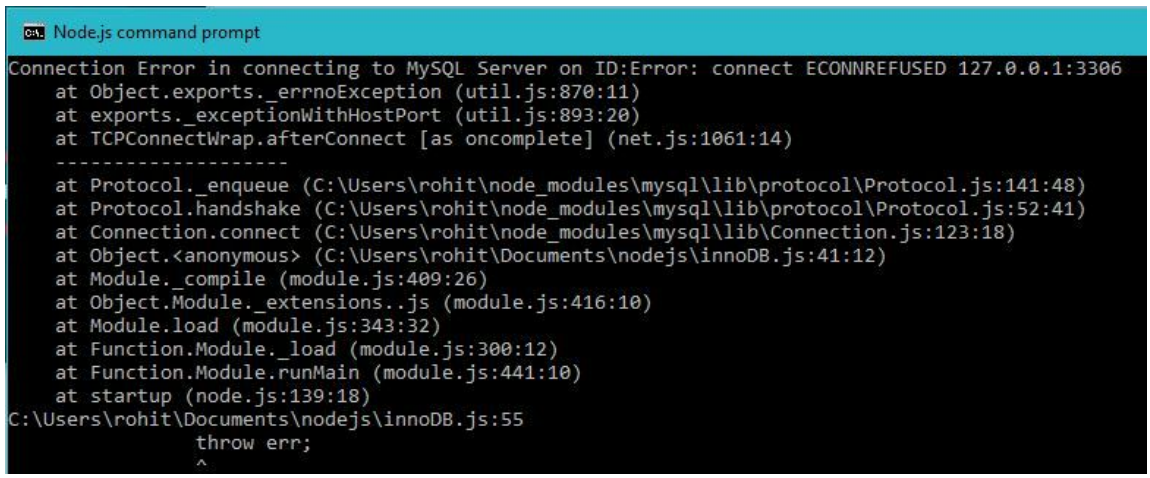
2. Navigating to location of Source file - innoDB.js



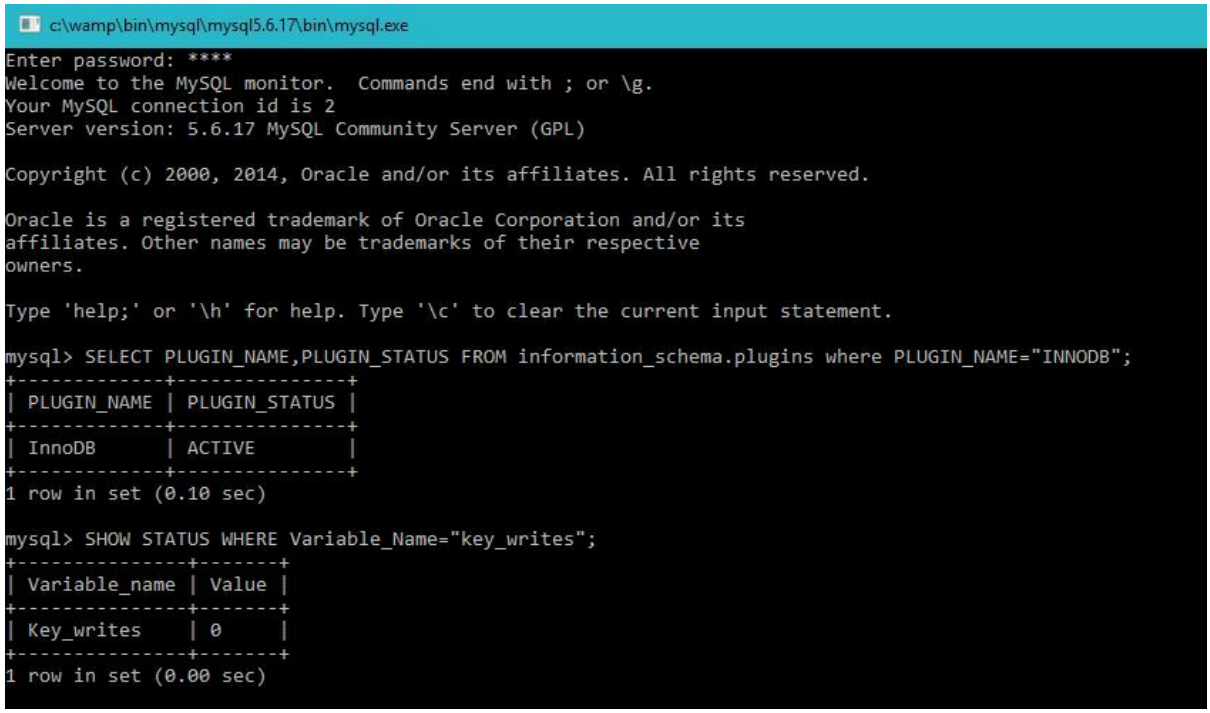
3. Running the Source file to get status of InnoDB plugin and disk write status



4. Testing : Running Source file when MySQL server is not running
   Result: Error thrown



5. Testing : Checking the Status of InnoDB Engine and disk write status on MySQL console.



Submitted by:
Rohit Kashyap
Google Student Ambassador,
Senior Undergraduate,
B.Tech, Dept. of Computer Science & Engineering
National Institute of Technology, Patna
rohitkashyap.in | LinkedIn | GitHub
+91-9504965828