Lab 7 MySQL & NodeJs

1. Set up programming tools

1.1 Install Visual Studio Code

Latest Version 1.65.2 for Windows OR darwin stable for mac from
https://code.visualstudio.com/download based on your operating system.

1.2 Install Node.js

Latest LTS Version 16.14.2 from https://nodejs.org/en/download/ based on your
operating system. Make sure that npm is included when install Node.js.

1.3 If Node.js is installed successfully, the result should be similar to this (your version could
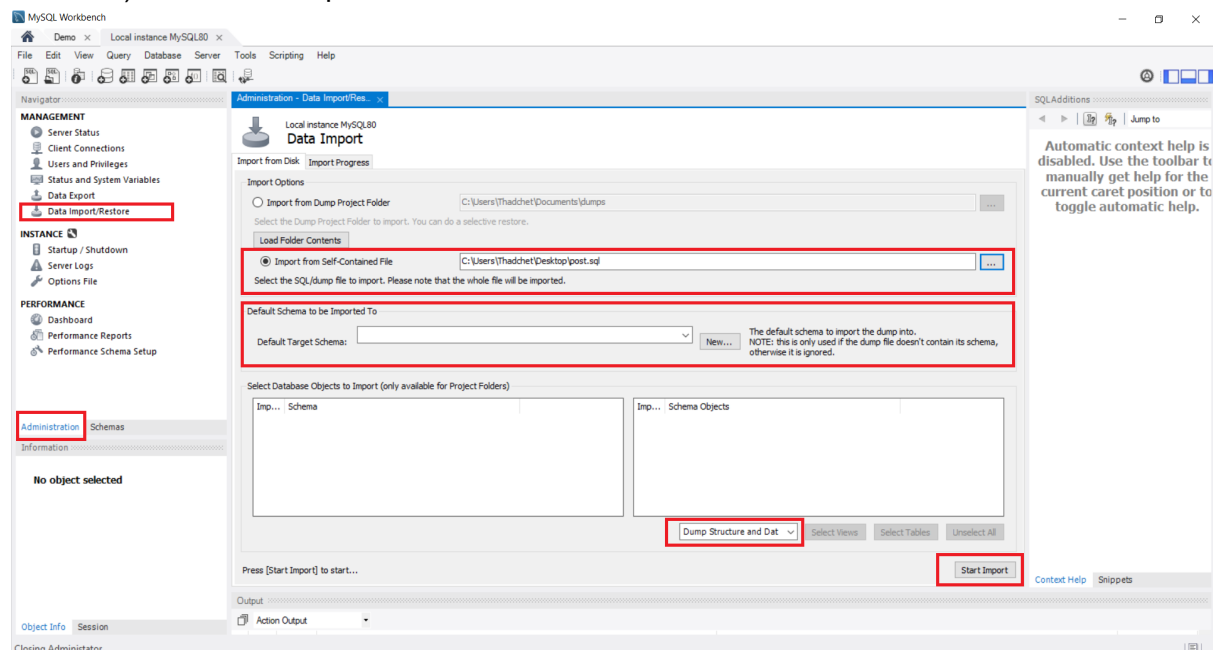be different):

```
PS C:\Users\upsag\Desktop\Lab7_31Mar2021> node -v
v16.13.2
PS C:\Users\upsag\Desktop\Lab7_31Mar2021> npm -v
8.1.2
PS C:\Users\upsag\Desktop\Lab7_31Mar2021>
```

1.4 Download lab materials from myCourseVille; extract and rename the folder to
623zzzzz21_lab7 (replace zzzzz with your student ID), then open and implement the given
source code files by using Visual Studio Code (see step No. 3).

2. Import the given Database to MySQLWorkbench

Import database with the sql script file named "registration_db.sql" as following steps:

1) Select "Administration" tab.
2) Select "Data Import/Restore" under Management section.
3) Select "Import from Self-Contained File" and browse .sql file.
4) At "Default Target Schema", click "New" button to create a new database.
5) Select "Dump Structure and Data" option.
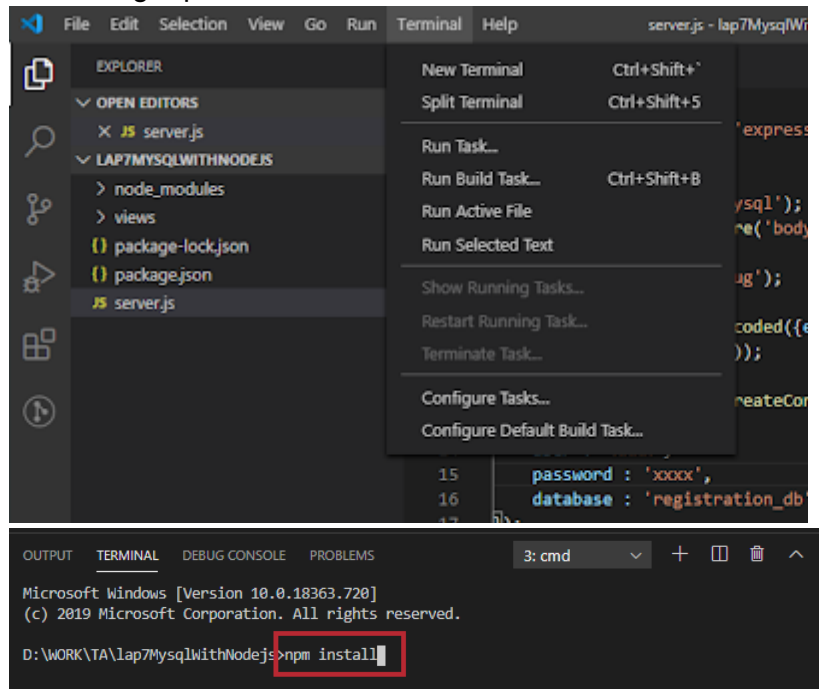6) Click "Start Import" button.
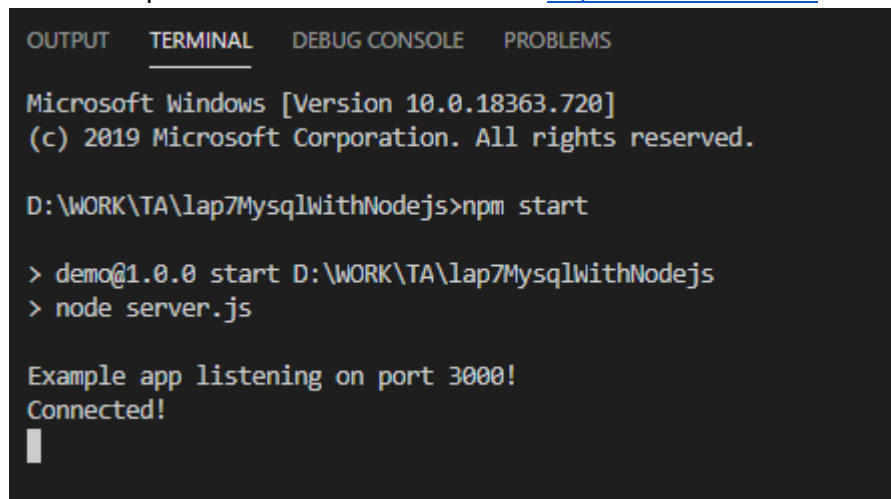
3. Web implementation

3.1 Open "server.js" in an editor, reconfigure username and password matching your own database configuration.

```
var connection = mysql.createConnection({
    host : 'localhost',
    user : 'xxxx',
    password : 'xxxx',
    database : 'registration_db'
});
```

3.2 Click "Terminal" tab and Select "New Terminal" then install the necessary libraries using "npm install" command.
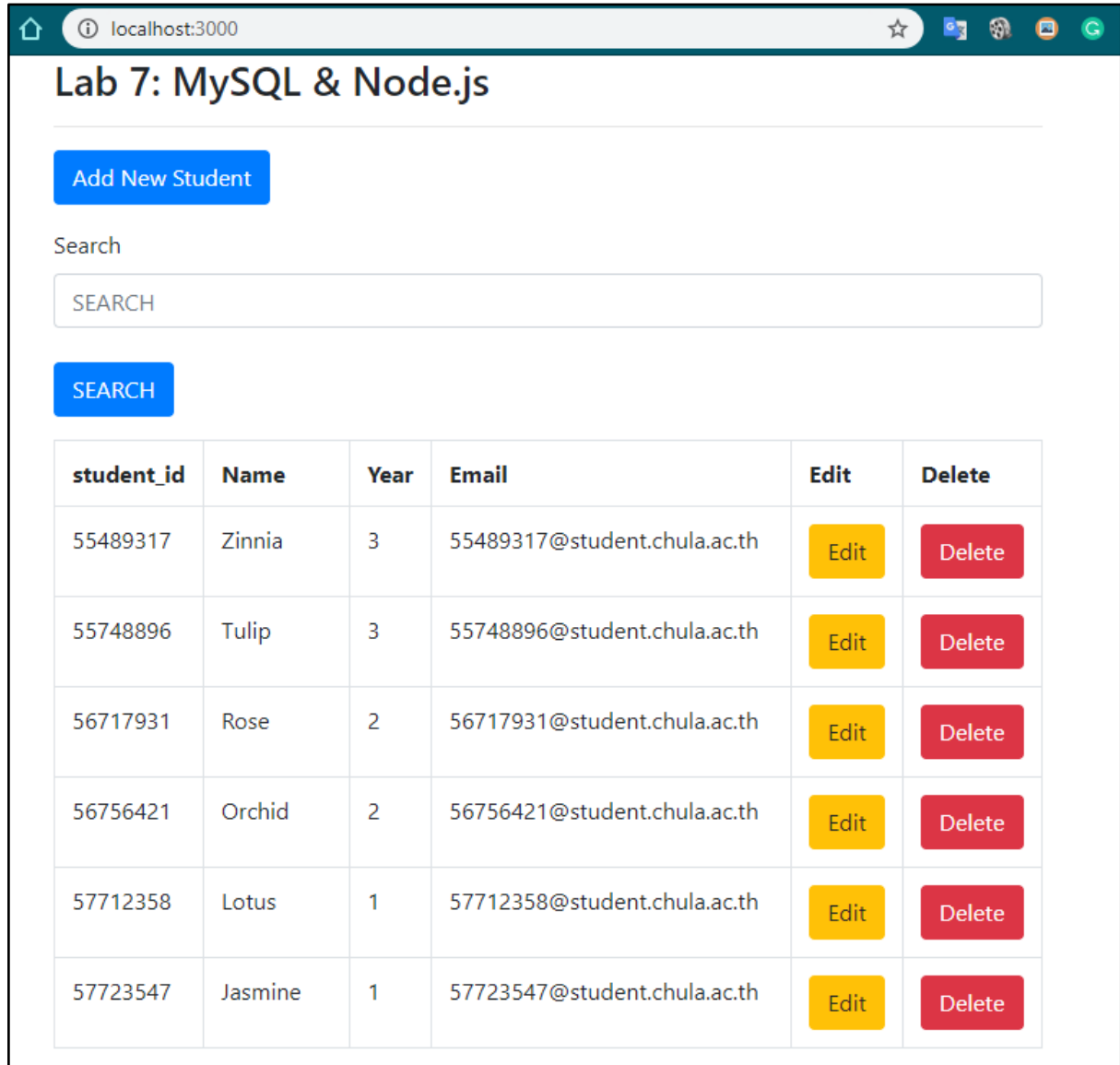

3.3 Start web server by using "npm start" command in the terminal of Visual Studio Code. Then open the web browser with URL http://localhost:3000/

If you have an error after npm starts, info on this page may help you resolve the errors.

https://stackoverflow.com/questions/50093144/mysql-8-0-client-does-not-support-authentication-protocol-requested-by-server

The results should look like this.

3.4 List all the data

student_id	Name	Year	Email
55489317	Zinnia	3	55489317@student.chula.ac.th
55748896	Tulip	3	55748896@student.chula.ac.th
56717931	Rose	2	56717931@student.chula.ac.th
56756421	Orchid	2	56756421@student.chula.ac.th
57712358	Lotus	1	57712358@student.chula.ac.th
57723547	Jasmine	1	57723547@student.chula.ac.th

3.5 Search data from tables
Type a keyword in the text box then click search button.

Search

SEARCH

SEARCH

student_id	Name	Year	Email	Edit	Delete
55748896	Tulip	3	55748896@student.chula.ac.th	Edit	Delete
57712358	Lotus	1	57712358@student.chula.ac.th	Edit	Delete
57723547	Jasmine	1	57723547@student.chula.ac.th	Edit	Delete

3.6 Insert a data record >> Click "Add New Student" button.

Student_id

student_id

Name

Name

Year

Year

Email

Email

ADD   Back

Insert your information (1 record) and your friends' information (3 records).

56756421	Orchid	2	56756421@student.chula.ac.th	Edit	Delete
57712358	Lotus	1	57712358@student.chula.ac.th	Edit	Delete
57723547	Jasmine	1	57723547@student.chula.ac.th	Edit	Delete
6031025521	Namo	3	6031025521@student.chula.ac.th	Edit	Delete
6031036321	Tee	3	6031036321@student.chula.ac.th	Edit	Delete
6032036321	Lisa	3	6032036321@student.chula.ac.th	Edit	Delete
6034044421	Ben	3	6034044421@student.chula.ac.th	Edit	Delete

3.7 Edit and update data record(s) >> Click Edit button

Student_id

55489317

Name

Zinnia

Year

3

Email

55489317@student.chula.ac.th

UPDATE   Back

Change the Name to "John wick" then click UPDATE

Student_id

55489317

Name

John wick

Year

3

Email

55489317@student.chula.ac.th

UPDATE   Back

The result:

student_id	Name	Year	Email	Edit	Delete
55489317	John wick	3	55489317@student.chula.ac.th	Edit	Delete

3.8 Delete a data record>>Click Delete button to delete one of your friend information

6031025521	Namo	3	6031025521@student.chula.ac.th	Edit	Delete
6031036321	Tee	3	6031036321@student.chula.ac.th	Edit	Delete
6032036321	Lisa	3	6032036321@student.chula.ac.th	Edit	Delete

The results should look like this.

6031025521	Namo	3	6031025521@student.chula.ac.th	Edit	Delete
6032036321	Lisa	3	6032036321@student.chula.ac.th	Edit	Delete
6034044421	Ben	3	6034044421@student.chula.ac.th	Edit	Delete

4. Your task

Edit files server.js, index.pug, edit.pug and add.pug to show, search, insert, edit and delete the data records in the Takes table (Student ID, course id, sect_id, semester, year, and grade). You have to make sure that all functions of your web do the job correctly, and you must <u>capture all screenshots and submit them through myCourseVille.</u>

List of screenshots to be submitted:

4.1 List

Show all student enrollments.

4.2 Search

Search with the keyword "77".

4.3 Insert

insert your enrollment information with your studentID and the following information.

CourseID: 301001
SectionID: 2
Semester: 2
Year: 2015
Grade: C

4.4 Edit

Edit student enrollment information by modifying the sectionID from "1" to "2" of student ID 55489317.

4.5 Delete

Delete student enrollment information of student ID 57712358.

The excerpt of expected screenshots

Lab 7: MySQL & Node.js

Add New Enrollment

Search

SEARCH

SEARCH

StudentID	CourseID	SectionID	Semester	Year	Grade	Edit	Delete
55489317	301001	1	2	2015	C	Edit	Delete
55748896	201002	1	2	2015	A	Edit	Delete
56717931	201001	3	summer	2015	B	Edit	Delete
56756421	201001	1	summer	2015	A	Edit	Delete
57712358	101001	1	1	2015	A	Edit	Delete
57712358	101002	2	1	2015	B	Edit	Delete
57723547	101001	1	1	2015	A	Edit	Delete
57723547	101002	1	1	2015	B+	Edit	Delete

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Add New Enrollment

Search

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SEARCH

StudentID	CourseID	SectionID	Semester	Year	Grade	Edit	Delete
56717931	201001	3	summer	2015	B	Edit	Delete
56756421	201001	1	summer	2015	A	Edit	Delete

Student_id

StudentID

CourseID

CourseID

SectionID

SectionID

Semester

Semester

Year

Year

Grade

Grade

ADD   Back

Student_id

55489317

CourseID

301001

SectionID

1

Semester

2

Year

2015

Grade

C

UPDATE   Back