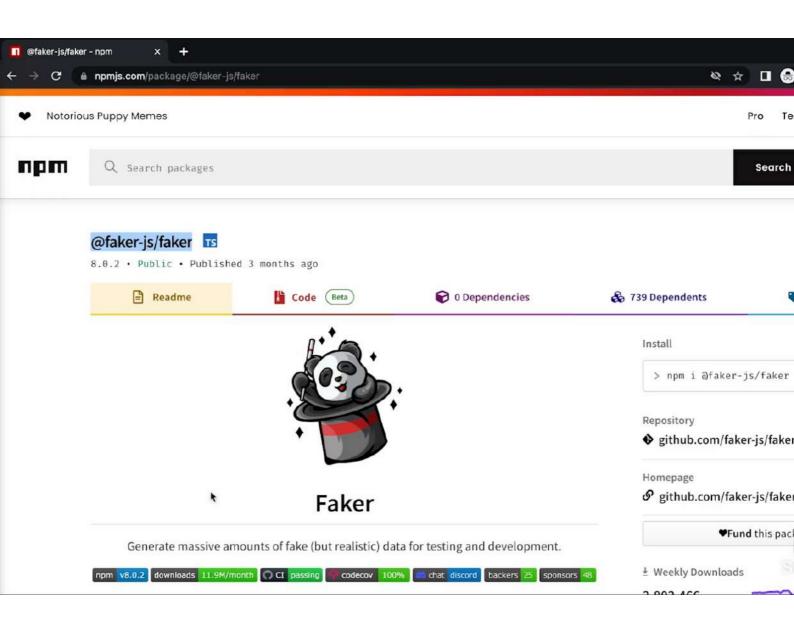
Faker

To generate fake data

userld username email password

```
let getUser = () => {
    return [
        faker.datatype.uuid(),
        faker.internet.userName(),
        faker.internet.email(),
        faker.internet.password(),
    ];
};

snehagupta738
```



> SQLCLASS > OUTLINE > TIMELINE PROBLEMS TERMINAL **DEBUG CONSOLE** OUTPUT o shradhakhapra@Shradhas-MacBook-Air SQLClass % npm init This utility will walk you through creating a package.json file. It only covers the most common items, and tries to guess sensible defaults. See `npm help init` for definitive documentation on these fields and exactly what they do. Use `npm install <pkg>` afterwards to install a package and save it as a dependency in the package.json file. Press ^C at any time to quit. package name: (sqlclass) version: (1.0.0) description: entry point: (index.js) test command: git repository: keywords: author:

```
"author": "Shradha Khapra",
   "license": "ISC"
}

Is this OK? (yes)
o shradhakhapra@Shradhas-MacBook-Air SQLClass % npm i @faker-js/faker
```

```
{} package.json
                                            JS index.js
 EXPLORER
                         JS index.js > [] createRandomUser

✓ SQLCLASS

                                const { faker } = require('@faker-js/faker');
 > node_modules
                           2
 JS index.js
                                let createRandomUser = () => {
 {} package-lock.json
                                    return {
 {} package.json
                                      userId: faker.datatype.uuid(),
                                      username: faker.internet.userName(),
                                      email: faker.internet.email(),
                                      avatar: faker.image.avatar(),
                                      password: faker.internet.password(),
                           9
                                      birthdate: faker.date.birthdate(),
                          10
                                      registeredAt: faker.date.past(),
                          11
                          12
                                               snehagupta7385@gmail.com
                                  }
                          13
                          14
```

```
shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
  [@faker-js/faker]: faker.datatype.uuid() is deprecated since v8.0 and will be rer
  faker.string.uuid() instead.
    userId: '64a73cfa-fce9-46fc-8b1e-b45d29638fe1',
    username: 'Karen_Reinger3',
    email: 'Ivy_Bailey@yahoo.com',
    avatar: 'https://avatars.githubusercontent.com/u/31723747',
    password: 'hDDNw8pcaahm1yU',
    birthdate: 1999-05-27T15:11:44.347Z,
    registeredAt: 2023-07-27T04:19:52.761Z
shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
  [@faker-js/faker]: faker.datatype.uuid() is deprecated since v8.0 and will be rer
  faker.string.uuid() instead.
    userId: 'e0a62458-83e1-4af0-a5f1-96be0ac1bff6',
    username: 'Mavis97',
    email: 'Russell98@gmail.com',
    avatar: 'https://cloudflare-ipfs.com/ipfs/Qmd3W5DuhgHirLHGVixi6V76LhCkZUz6pnF1
    password: '5R_TOZgWLUANahR',
    birthdate: 1961-10-03T20:54:10.975Z,
    registeredAt: 2023-04-12T02:30:19.565Z
o shradhakhapra@Shradhas-MacBook-Air SQLClass %
```

```
{} package.json
                                              JS index.js
  EXPLORER
                          JS index.js > [@] getRandomUser > \beta password
∨ SQLCLASS
                                 const { faker } = require("@faker-js/faker");
  > node_modules
 JS index.js
                                 let getRandomUser = () => {
 {} package-lock.json
                                    return {
 {} package.json
                                     user d: faker.datatype.uuid(),
                                     username: faker.internet.userName(),
                                      email: faker.internet.email(),
                                     password: faker.internet.password()
                                   };
                                 };
                            11
                                 console.log(createRandomUser());
                            12
                            13
```

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

[@faker-js/faker]: faker.datatype.uuid() is deprecated since v8.0 and will faker.string.uuid() instead.

{
    id: '12b4355a-a3fd-4231-bb56-b2bd622b2d9c',
    username: 'Carmella_Mu&ller33',
    email: 'Shyann35@yahoo.com',
    password: '03DYhh5X0BFeFz2'
}

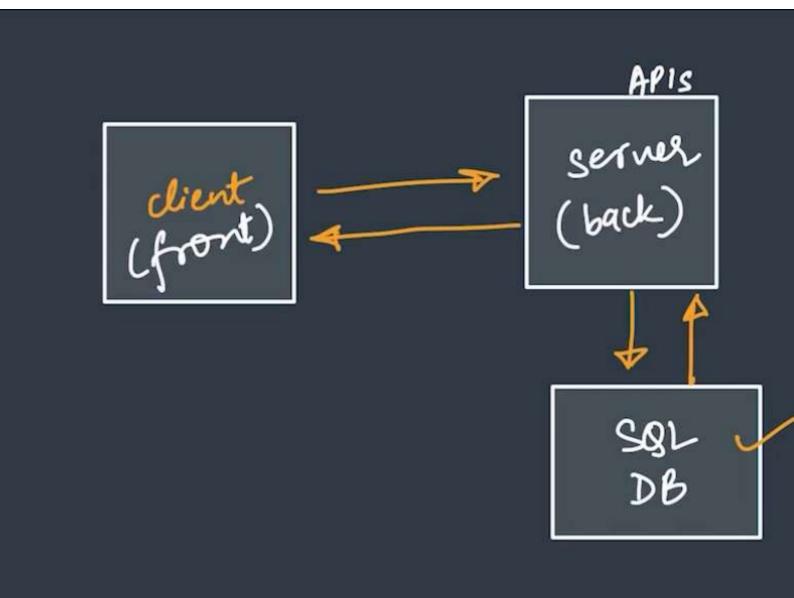
shradhakhapra@Shradhas-MacBook-Air SQLClass %

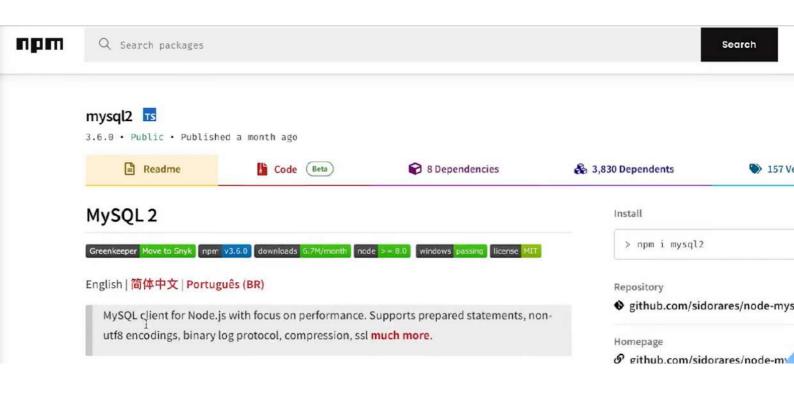
■
```

MySQL2 Package

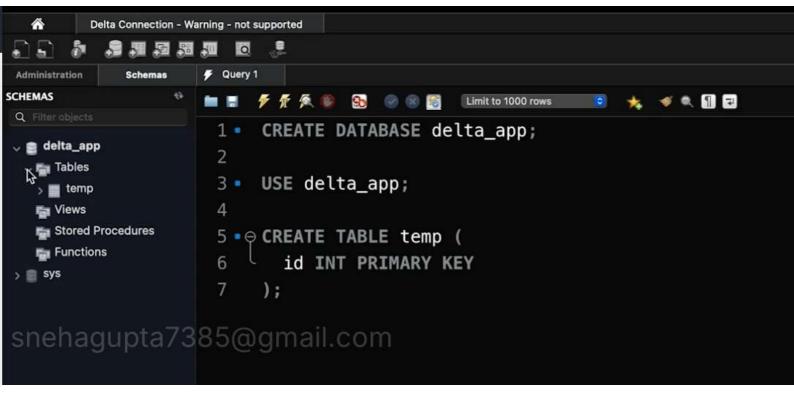
To connect Node with MySQL

connection.end(); II to close connection





```
// get the client
const mysql = require('mysql2');
// create the connection to database
const connection = mysql.createConnection({
 host: 'localhost',
 user: 'root',
 database: 'test'
});
// simple query
connection.query(
  'SELECT * FROM `table` WHERE `name` = "Page" AND `age` > 45',
  function(err, results, fields) {
    console.log(results); // results contains rows returned by server
   console.log(fields); // fields contains extra meta data about results,
  }
);
```



```
const flaker } = require( @raker=js/raker );

const mysql = require('mysql2');

const connection = mysql.createConnection({
    host: 'localhost',
    user: 'root',
    database: 'delta_app',
    passowrd: 'mysql@123'
});
```

```
try {
connection.query("SHOW TABLES", (err, result) => {
   if (err) throw err;
   console.log(result);
});
} gatch (err) {
   console.log(err);
```

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

at Socket.Readable.push (node:internal/streams/readable:228:10) {
code: 'ER_ACCESS_DENIED_ERROR',
errno: 1045,
sqlState: '28000',
sqlMessage: "Access denied for user 'root'@'localhost' (using password:
sql: undefined,
fatal: true
}
o shradhakhapra@Shradhas-MacBook-Air SQLClass %
```

Using SQL from CLI

/usr/local/mysql/bin/mysql -u root -p_

Create schema.sql

source schema.sql // in CLI

```
JS index.js > ☆ connection.query("SHOW TABLES") callback
              });
         10
              try {
         11
on
         12
                 connection.query("SHOW TABLES", (err, result) => {
                   if (err) throw err;
         13
               console.log(result);
         14
                                             I
         15
                });
              } catch (err) {
         16
                console.log(err);
         17
         18
               }
         19
               let getRandomUser = () => {
         20
         21
                 return {
         22
                   id: faker.datatype.uuid(),
         23
                   username: faker.internet.userName(),
         24
                   email: faker.internet.email().
                              TERMINAL
        PROBLEMS
                    OUTPUT
                                         DEBUG CONSOLE
      o shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
        [ { Tables_in_delta_app: 'temp' } ]
```

```
});
          10
               Ery {
          11
son
                  connection.query("SHOW TABLES", (err, result) => {
          12
                    if (err) throw err;
          13
                    console.log(result);
          14
                  });
          15
                } catch (err) {
          16
                  console.log(err);
          17
          18
          19
          20
                connection.end();
          21
                let getRandomUser = () => {
          22
          23
                  return {
          24
                    id: faker.datatype.wwid().
         PROBLEMS
                     OUTPUT
                               TERMINAL
                                           DEBUG CONSOLE

shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js

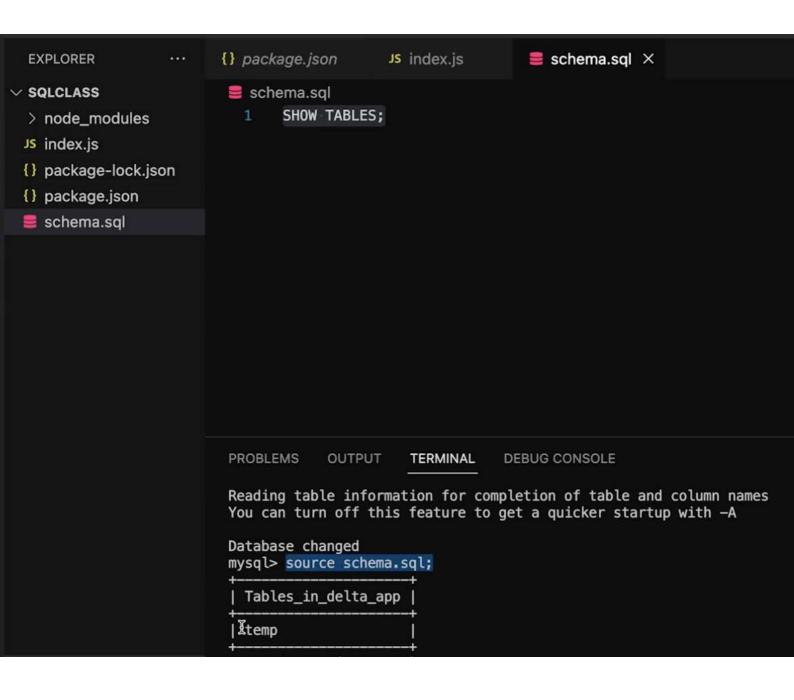
         [ { Tables_in_delta_app: 'temp' } ]
         ^C
       shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
         [ { Tables_in_delta_app: 'temp' } ]
       o shradhakhapra@Shradhas-MacBook-Air SQLClass % □
```

Using SQL from CLI

/usr/local/mysql/bin/mysql -u root -p

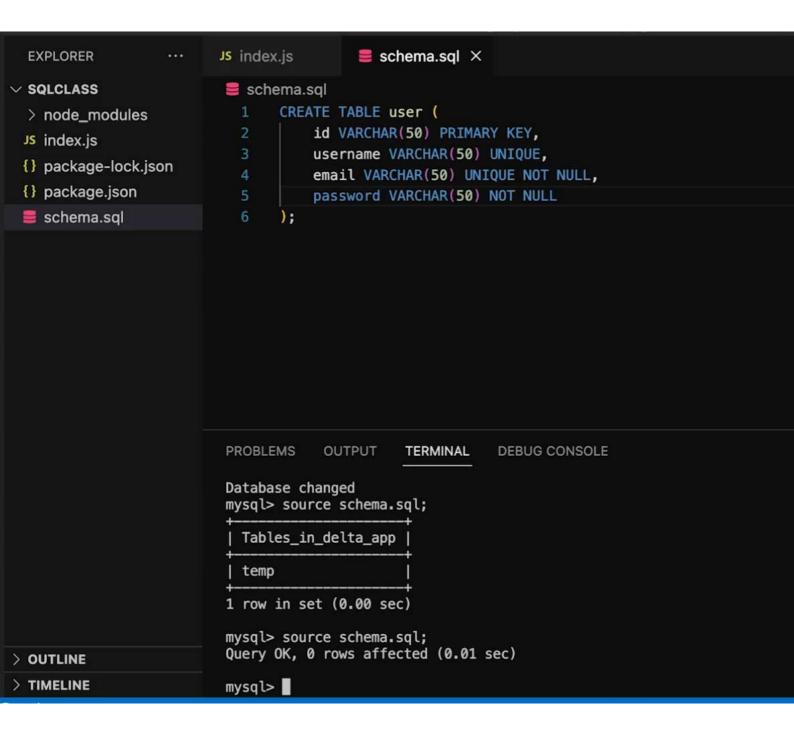
Create schema.sql

source schema.sql // in CLI



CREATE Table user

```
CREATE TABLE user (
    userId VARCHAR(50) PRIMARY KEY,
    username VARCHAR(50) UNIQUE,
    email VARCHAR(50) UNIQUE NOT NULL,
    password VARCHAR(50) NOT NULL
);
```



```
EXPLORER
                               JS index.js
                                                    schema.sql
∨ SQLCLASS
                                JS index.js > ...
  > node_modules
                                 11
                                         ₩y {
  JS index.js
                                 12
                                           connection.query("SHOW TABLES", (err, result) => {
 {} package-lock.json
                                 13
                                              if (err) throw err;
                                 14
                                              console.log(result);
 {} package.json
                                 15
                                           });
 schema.sql
                                         } catch (err) {
                                 17
                                           console.log(err);
                                 19
                                 20
                                        connection.end();
                                 21
                                 22
                                         let getRandomUser = () => {
                                 23
                                           return {
                                 24
                                              id: faker.datatype.uuid(),
                                 25
                                              username: faker.internet.userName(),
                                PROBLEMS
                                               OUTPUT
                                                            TERMINAL
                                                                          DEBUG CONSOLE

ø shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js

                                [ { Tables_in_delta_app: 'temp' } ]
^C
                              shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
                              [ { Tables_in_delta_app: 'temp' } ]

shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
[ { Tables_in_delta_app: 'temp' }, { Tables_in_delta_app: 'user' } ]
shradhakhapra@Shradhas-MacBook-Air SQLClass %
```

```
JS index.js
  EXPLORER
∨ SQLCLASS
                          JS index.js > ...
  > node_modules
                                 const connection = mysql.createConnection({
 JS index.js
                                   host: "localhost",
 {} package-lock.json
                                   user: "root",
 {} package.json
                                   database: "delta_app",
 schema.sql
                                   password: "mysql@123",
                                 });
                           11
                                 ₩y {
                           12
                                   connection.query("SHOW TABLES", (err, result) => {
                           13
                                     if (err) throw err;
                                     console.log(result);
                           14
                                     console.log(result.length);
                           15
                                     console.log(result[0]);
                           17
                                     console.log(result[1]);
                                   });
                           19
                                 } catch (err) {
                          PROBLEMS
                                      OUTPUT
                                                 TERMINAL
                                                            DEBUG CONSOLE
                         shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
                           [ { Tables_in_delta_app: 'temp' }, { Tables_in_delta_app: 'user' } ]
                         shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
                           [ { Tables_in_delta_app: 'temp' }, { Tables_in_delta_app: 'user' } ]
                          { Tables_in_delta_app: 'temp' }
                           { Tables_in_delta_app: 'user'
```

```
database: "delta_app",
          password: "mysql@123",
   9
        }):
  10
        let q = "SHOW TABLES";
  11
  12
  13
        try {
          connection.query(q, (err, result) => {
  14
            if (err) throw err;
  15
            console.log(result);
  16
            console.log(result.length);
  17
            console.log(result[0]);
  18
            console.log(result[1]);
  19
 PROBLEMS
             OUTPUT
                       TERMINAL
                                   DEBUG CONSOLE
shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
 [ { Tables_in_delta_app: 'temp' }, { Tables_in_delta_app: 'user' } ]
 { Tables_in_delta_app: 'temp' }
 { Tables_in_delta_app: 'user' }
shradhakhapra@Shradhas-MacBook-Air SQLClass %
```

INSERT User

using placeholders

```
let user = ["123@abc2", "random_user2", "random@gmail.com2", "random@123"];

connection.query(
  `INSERT INTO user (userId, username, email, password) VALUES (?, ?, ?, ?)`,
  user,
  function (err, results) {
    if (err) throw err;
    console.log(results);
  }
);
```

```
});
 // simple query
 connection.query(
   'SELECT * FROM `table` WHERE `name` = "Page" AND `age` > 45',
   function(err, results, fields) {
    console.log(results); // results contains rows returned by server
     console.log(fields); // fields contains extra meta data about results,
   }
 );
 // with placeholder
 connection.query(
  'SELECT * FROM `table` WHERE `name` = ? AND `age` > ?',
  ['Page', 45],
   function(err, results) {
     console.log(results);
   }
 );
```

```
EXPLORER
                           JS index.js
                                       ×
∨ SQLCLASS
                           JS index.js > ...
  > node_modules
                                     database: "delta_app",
 Js index.js
                                    password: "mysql@123",
 {} package-lock.json
 {} package.json
                                  //Inserting New Data
 schema.sql
                                  let q = "INSERT INTO user (id, username, email, password) VALUES (?, ?, ?, ?)";
                                  let user = ["123", "123_newuser", "abc@gmail.com", "abc"];
                                  try {
                                    connection.query(q, user, (err, result) => {
                                       if (err) throw err;
                                       console.log(result);
                                  } catch (err) {
                                    console.log(err);
                           PROBLEMS
                                        OUTPUT
                                                  TERMINAL
                                                              DEBUG CONSOLE
                                                                                                             > zsh
                         shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
                           ResultSetHeader {
                              fieldCount: 0,
                             affectedRows: 1, insertId: 0, info: '',
                             info: , serverStatus: 2,
                              warningStatus: 0,
                             changedRows: 0
> OUTLINE
```

```
2 rows in set (0.00 sec)

mysql> SELECT * FROM user;
| id | username | email | password |
| 123 | 123_newuser | abc@gmail.com | abc |
| 1 row in set (0.00 sec)
```

```
> node_modules
                          10
 JS index.js
                                //Inserting New Data
 {} package-lock.json
                                let q = "INSERT INTO user (id, username, email, password) VALUES (?, ?, ?, ?)";
                          12
                                let users = [
 {} package.json
                                  ["123b", "123_newuserb", "abc@gmail.comb", "abcb"],
 schema.sql
                                  ["123c", "123_newuserc", "abc@gmail.comc", "abcc"],
                                ₩у {
                                  connection.query(q, weer, (err, result) => {
                                    if (err) throw err;
                                    console.log(result);
                                  });
                                } catch (err) {
                                  console.log(err);
                                }
                                               TERMINAL
                         PROBLEMS
                                     OUTPUT
                                                           DEBUG CONSOLE
                                                                                                       > zsh
                         2 rows in set (0.00 sec)
                         mysql> SELECT * FROM user;
                          | id
                                username
                                               email
                                                               password
                           123 | 123_newuser | abc@gmail.com
                                                               abc
                          1 row in set (0.00 sec)
> OUTLINE
> TIMELINE
                         mysql> []
```

```
EXPLORER
                         Inaex.js
∨ SQLCLASS
                          JS index.js > [@] q
  > node_modules
 index.js

√Inserting New Data

 § package-lock.json
                                 let q = TINSERT INTO user (id, username, email, password) VALUES ?";
 {} package.json
                                 let users = [
                                 ["123b", "123_newuserb", "abc@gmail.comb", "abcb"],
 schema.sql
                                  ["123c", "123_newuserc", "abc@gmail.comc", "abcc"],
                                try {
                                  connection.query(q, [users], (err, result) => {
                                     if (err) throw err;
                                     console.log(result);
                                 } catch (err) {
                                  console.log(err);
                          PROBLEMS
                                      OUTPUT
                                                TERMINAL
                                                           DEBUG CONSOLE
                                                                                                       > zsh
                          2 rows in set (0.00 sec)
                          mysql> SELECT * FROM user;
                            id
                                 username
                                               email
                                                               password |
                           123 | 123_newuser | abc@gmail.com | abc
                          1 row in set (0.00 sec)
> OUTLINE
> TIMELINE
                          mysql> [
```

```
DEBUG CONSOLE
                        TERMINAL
 PROBLEMS
             OUTPUT
shradhakhapra@Shradhas-MacBook-Air SQLClass % node index.js
 ResultSetHeader {
    fieldCount: 0,
   affectedRows: 2,
    insertId: 0,
    info: 'Records: 2 Duplicates: 0 Warnings: 0',
    serverStatus: 2,
   warningStatus: 0,
   changedRows: 0
o shradhakhapra@Shradhas-MacBook-Air SQLClass % []
                     Ln 15, Col 25 (29 selected)
                                              Spaces: 4
                                                                    {}.
                                                        UTF-8
                                                                LF
```

```
mysql> SELECT * FROM user;
                          email
  id
                                            | password |
        username
  123
          123_newuser
                          abc@gmail.com
                                             abc
                          abc@gmail.comb
abc@gmail.comc
  123b
          123_newuserb
                                             abcb
  123c
          123_newuserc
                                             abcc
3 rows in set (0.00 sec)
```



using faker

```
let data = [];
for (let i = 1; i <= 100; i++) {
   data.push(getUser());
}

console.log(data);
let q = `INSERT INTO user (userId, username, email, password) VALUES ?`;

connection.query(q, [data], function (err, results) {
   if (err) throw err;
   console.log(results);
});</pre>
```

```
28
      let getRandomUser = () => {
29
        return [
30
          faker.datatype.uuid(),
31
          faker.internet.userName(),
32
          faker.internet.email(),
33
          faker.internet.password(),
34
35
36
37
```

```
//Inserting New Data
let q = "INSERT INTO user (id, username, email, password) VALUES ?";
let data = [];
for (let i = 1; i <= 100; i++) {
    console.log(getRandomUser());
}</pre>
```

```
//Inserting New Data
let q = "INSERT INTO user (id, username, email, password) VALUES ?";
let data = [];
for (let i = 1; i <= 100; i++) {
    data.push(getRandomUser());
}</pre>
```

```
EXPLORER
                        Js index.js
                         JS index.js > ...
∨ SQLCLASS
  > node_modules
                          15
                                    faker.internet.email(),
 JS index.js
                                    faker.internet.password(),
                          17
                                1;
 {} package-lock.json
                                };
 {} package.json
 schema.sql
                                //Inserting New Data
                          21
                                let q = "INSERT INTO user (id, username, email, password) VALUES ?";
                          22
                          23
                                let data = [];
                                for (let i = 1; i \le 100; i++)
                          24
                                 data.push(getRandomUser()); // 100 fake
                          25
                          27
                                  connection.query(q, [data], (err, result) => {
                          29
                          30
                                    if (err) throw err;
                                    console.log(result);
                                 });
                          32
                                } catch (err) {
                          33
                                  console.log(err);
                          34
```

```
[@faker-js/faker]: faker.datatype.uuid() is deprecated s
e use faker.string.uuid() instead.
[@faker-js/faker]: faker.datatype.uuid() is deprecated s
e use faker.string.uuid() instead.
ResultSetHeader {
    fieldCount: 0,
    affectedRows: 100,
    insertId: 0,
    info: 'Records: 100 Duplicates: 0 Warnings: 0',
    serverStatus: 2,
    warningStatus: 0,
    changedRows: 0
}
shradhakhapra@Shradhas-MacBook-Air SQLClass %
```

123b	123_newuserb	abc@gmail.comb		
123c	123_newuserc	abc@gmail.comc		
12f1c618-e24e-4b5b-8624-db04f2a8d14c	Trisha95	Sonia.Bednar-Abernathy99@hot		
151e72cb-1098-42fb-be53-c470e09d7a96	Odie35	Mackenzie_Blanda6@gmail.com		
17e1087b-9d73-46a6-ba77-441da71066f0	Ulises55	Clotilde.Gibson@yahoo.com		
1e740688-f4dd-4fa7-a6a3-119fbecb27a0	Esther54	Gabe_Buckridge@yahoo.com		
1fc0bed1-d300-4893-94eb-9c4ead370d88	Pat74	Mina_Bode37@gmail.com		
22eb4210-992f-4e13-91e8-134fbe441a89	Cydney73	Maddison_Beer@yahoo.com		
255c4f3d-d08d-4493-be2f-d3bfc431404b	Theo61	Jalen_Feil5@hotmail.com		
25d90a7b-dc42-4dc9-9709-09fd3cbfc6d1	Mathew_Fadel55	Christa34@hotmail.com		
28ffb4c4-04d7-425c-a4d7-9516a4959318	Micheal_Schuppe65	Tiana_OConner@hotmail.com		
2aa39c8d-59a2-45e1-a390-9bcb95ccbf2a	Damon.Beahan-Orn	Erna_Mayer57@hotmail.com		
2b775ca4-2d08-429b-a572-1c173913ece9	Reynold57	Earline96@yahoo.com		
36ef8227-dbdc-4041-9474-e4328bba6e35	Tremayne51	Jasper.Doyle@yahoo.com		
3807fb66-7a9a-4afd-bf4a-dc772c86a2d6	Penelope_MacGyver55	Alycia_Aufderhar40@gmail.co		
3ac2df49-fb2c-46c9-81bc-60826dd82b23	Santino.Dooley19	Raven74@hotmail.com		
3d43e518-e5c4-44dc-a4d2-e7aa8f49fa82	Leslie_DAmore	Coralie.Hahn@gmail.com		
42f0bc83-eba4-44b6-9309-1f14c2821027	Carleton_Wisoky3	Jakob.Sanford96@gmail.com		
4c219478-9615-4cb4-b813-cd0461956600	Troy74	Justice.Dicki65@hotmail.com		
	Ln 27, Col 1	Spaces: 4 UTF-8 LF () JavaScrip		
	The state of the s			

Routing

REST

GIET / -> show no of wer in DB

CIET / wer -> show weres (remailered, vectrame) ejs

PATCH / wer /: id -> wername edit

ADD POST / wer -> new wer

DELETE / wer/: id -> wer debte

```
JS index.js
  EXPLORER
                                      ×
                           Js index.js > ...
∨ SQLCLASS
                            32
                                      if (err) throw err;
  > node_modules
                                      console.log(result);
                            33
 JS index.js
                                   });
                            34
 {} package-lock.json
                                  } catch (err) {
                            35
 {} package.json
                                    console.log(err);
                            36
 schema.sql
                            37
                                  }
                            38
                            39
                                  connection.end();
                            40
                                 app.get("/", (req, res) => {
                                  Ires.send("welcome to home page");
                            42
                            43
                                  });
                            44
                                  app.listen("8080", () => {
                                    console.log("server is listening to port 8080");
                            47
                                  });
```

Setting up Express App

GET / Fetch & show total number of users on our app

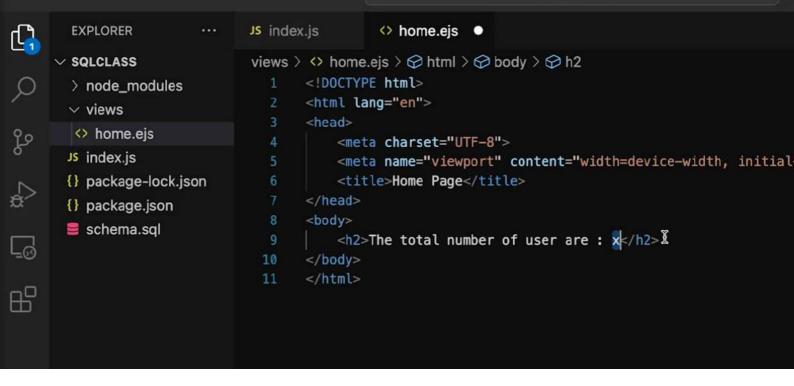
```
app.get("/", (req, res) => {
  let q = `SELECT count(*) FROM user`;
  try {
    connection.query(q, (err, result) => {
      if (err) throw err;
      let count = result[0]["count(*)"];
      res.render("home.ejs", { count });
    });
  } catch (err) {
    res.send("some error occurred");
  }
});
```

```
EXPLORER
                          Js index.js
                                      ×

✓ SQLCLASS

                           Js index.js > ∅ app.get("/") callback > ∅ connection.query() callback
  > node_modules
                            21
 Js index.js
                            22
                                 app.get("/", (req, res) => {
                            23
                                    let q = `SELECT count(*) FROM user`;
 {} package-lock.json
                            24
                                    try {
 {} package.json
                            25
                                      connection.query(q, (err, result) => {
 schema.sql
                                        if (err) throw err;
                                        console.log(result[0]["count(*)"]);
                            27
                                        res.send("success");
                                                                         I
                            29
                                      });
                                    } catch (err) {
                            31
                                      console.log(err);
                                      res.send("some error in DB");
                            33
                            34
                                 });
                                 app.listen("8080", () => {
                                    console.log("server is listening to port 8080");
                               }):
                           PROBLEMS
                                       OUTPUT
                                                 TERMINAL
                                                             DEBUG CONSOLE
                           103
                           express deprecated res.send(status): Use res.sendStatus(status) instead in
                           103
                           103
                           103
```

```
×
  EXPLORER
                         Js index.js
∨ SQLCL... [st] 日 ひ 目
                          Js index.js > ...
                                 const { faker } = require("@faker-js/faker");
  > node_modules
                                 const mysql = require("mysql2");
 views.
                                 const express = require("express");
 JS index.js
                                 const app = express();
 {} package-lock.json
                                 const path = require("path");
 {} package.json
                                 app.set("view engine", "ejs");
 schema.sql
                                 app.use("views", path.join(__dirname, "/views"));
                                 const connection = mysql.createConnection({
                                   host: "localhost",
                           11
                           12
                                   user: "root",
                           13
                                   database: "delta_app",
                           14
                                   password: "mysql@123",
                                 });
                           16
                                 let getRandomUser = () => {
                           17
                                   return [
                                     faker.datatype.uuid(),
                                     faker.internet.userName(),
                           20
                                     faker.internet.email(),
                           21
                                     faker.internet.password(),
                           22
                                   1;
```



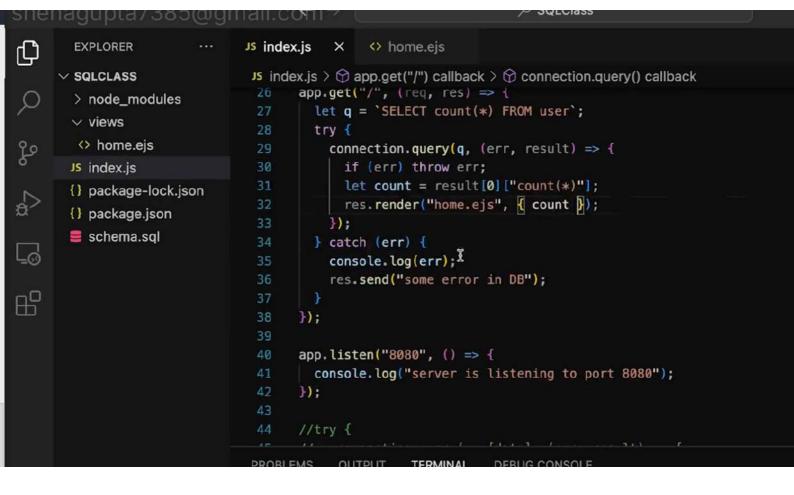
```
Ф
                                                              O home.ejs X
          EXPLORER
                                        JS index.js

✓ SQLCLASS

                                         views \rangle \Leftrightarrow \text{home.ejs} \rangle \Leftrightarrow \text{html} \rangle \Leftrightarrow \text{body} \rangle \Leftrightarrow \text{h2} \rangle \Leftrightarrow ?
                                                  <!DOCTYPE html>
           > node_modules
                                                  <html lang="en">

√ views

                                                    <head>
           home.ejs
                                                       <meta charset="UTF-8" />
          JS index.js
                                                       <meta name="viewport" content="width=device-width, initial-scale=1.0" />
          {} package-lock.json
                                                       <title>Home Page</title>
                                                    </head>
         {} package.json
                                                    <body>
         schema.sql
                                                       <h2>The total number of user are : <h2> count %></h2>
                                                       <button>Join us today!</button>
                                                    </body>
                                          13
```



client segs server oug control
ejs DB

Creating Our Routes

GET luser

Fetch & show (userId, username, email) of all users

```
app.get("/user", (req, res) => {
  let q = `SELECT * FROM user`;
  try {
    connection.query(q, (err, result) => {
      if (err) throw err;
      let data = result;
      console.log(data);
      res.render("users.ejs", { data });
    });
  } catch (err) {
    res.send("some error occurred");
  }
});
```

```
Js index.js
                              home.ejs
                         ×
              Js index.js > 😭 app.get("/user") callback > 😭 connection.query(
                    //Show Route
              41
dules
                    app.get("/user", (req, res) => {
              42
                       let q = `SELECT * FROM user`;
              43
              44
              45
                      try {
                         connection.query(q, (err, result) => {
              46
lock.json
                           if (err) throw err;
              47
son
                           console.log(result);
              48
ql
                           res.send(result);
              49
                         });
              50
                      } catch (err) {
              51
                         console.log(err);
              52
385@gmail.com
                         res.send("some error in DB");
              54
              55
                    });
```

```
⇔ showusers.ejs •
        EXPLORER
                                  JS index.js
                                                                           home.ejs
      V SQLCLASS
                                  views \rangle \Leftrightarrow showusers.ejs \rangle \Leftrightarrow html \rangle \Leftrightarrow body \rangle \Leftrightarrow table \rangle \Leftrightarrow tr
                                          <!DOCTYPE html>
        > node_modules
                                          <html lang="en">

√ views

                                          <head>
ည
         home.ejs
                                              <meta charset="UTF-8">
         o showusers.ejs
                                               <meta name="viewport" content="width=device-width, initial-scale=1.0">
        JS index.js
                                               <title>All Users</title>
                                          </head>
        {} package-lock.json
                                          <body>
        {} package.json
                                              schema.sql
                                                        Id
                                                        Email
                                                        Username
                                                   </body>
```

```
⇔ showusers.ejs × ⇔ home.ejs
 EXPLORER
                     JS index.js
                     views > ⇔ showusers.ejs > ⇔ html > ⇔ body > ⇔ table > ⇔ tr > ⇔ td
∨ SQLCLASS
                               <title>All Users</title>
 > node_modules
                             </head>

√ views

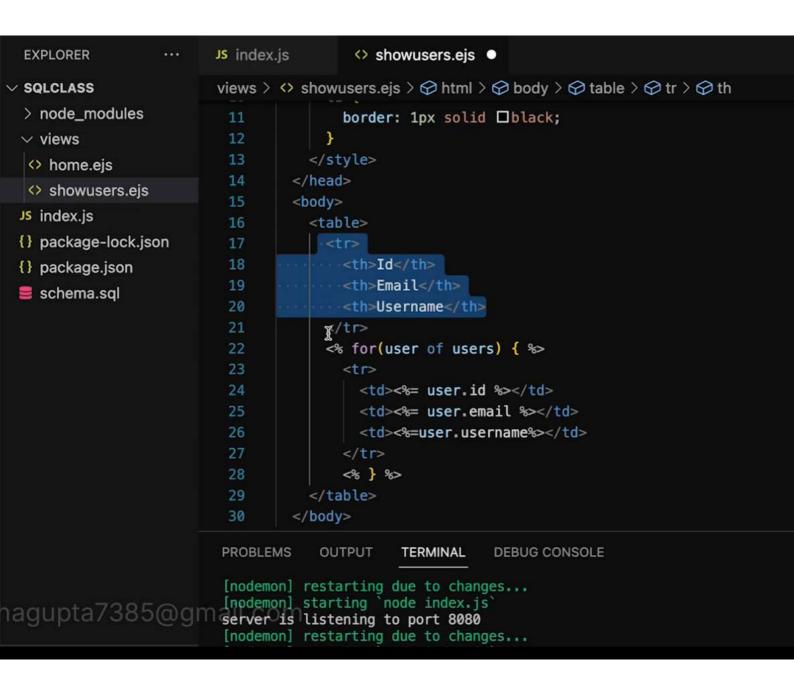
                             <body>
  home.ejs
                               showusers.ejs
                      10
 JS index.js
                                  Id
                      11
                                  Email
                      12
 {} package-lock.json
                                  Username
                      13
 {} package.json
                      14
 schema.sql
                      15
                                  123
                                  abc@gmail.com
                      17
                                  abc 
                                19
                               20
                             </body>
                      21
                      22
                           </html>
                      23
```

```
40
41
      //Show Route
      app.get("/user", (req, res) => {
42
        let q = `SELECT * FROM user`;
43
44
        try {
45
          connection.query(q, (err, result) => {
46
            if (err) throw err;
47
                                                    I
            // res.send(result);
48
            res.render("showusers.ejs");
49
50
        } catch (err) {
51
52
          console.log(err);
          res.send("some error in DB");
53
54
        }
55
      });
56
57
      app.listen("8080", () => {
```

```
∨ SQLCLASS
                            views > ⇔ showusers.ejs > ⇔ html > ⇔ head > ⇔ style > ⇔ table > ⇔ th
Q
                                   <!DOCTYPE html>
      > node_modules
                                   <html lang="en">

√ views

                                     <head>
      home.ejs
                                       <meta charset="UTF-8" />
      showusers.ejs
                                       <meta name="viewport" content="width=device-width, initial-scale=1.0" />
     Js index.js
                                       <title>All Users</title>
                                       <style>
     {} package-lock.json
                                         table,
     {} package.json
                                         th,
.
©
     schema.sql
                                         td {
                                          border: 1px solid □black;
8
                                        }
                                       </style>
                                     </head>
                                     <body>
                                       Id
                                           Email
```





→ C ① localhost:80	80/use
→ C ① localhost:80	80/us

Id	Email	Username
02fd3f59-d408-4414-b6e7-6da573aa1ede	Lysanne18@hotmail.com	Michaela15
07a0ab83-221e-4b43-874a-5a9f69895ced	Francis_Krajcik@yahoo.com	Lauriane.Mertz3
09198186-4202-45bb-a7d7-76170bd70490	Marley_Metz87@gmail.com	Tianna71
0a6b3c30-e064-463c-b1b2-0bfd9196e31d	Mckayla37@gmail.com	Virgie62
0b20452f-b0c9-4bcb-a12f-457137e35ac3	Anita.Wilderman69@yahoo.com	Davin_Gutkowski
123	abc@gmail.com	123_newuser
123b	abc@gmail.comb	123_newuserb
123c	abc@gmail.comc	123_newuserc
12f1c618-e24e-4b5b-8624-db04f2a8d14c	Sonia.Bednar-Abernathy99@hotmail.com	Trisha95
151e72cb-1098-42fb-be53-c470e09d7a96	Mackenzie_Blanda6@gmail.com	Odie35
17e1087b-9d73-46a6-ba77-441da71066f0	Clotilde.Gibson@yahoo.com	Ulises55
1e740688-f4dd-4fa7-a6a3-119fbecb27a0	Gabe_Buckridge@yahoo.com	Esther54
1fc0bed1-d300-4893-94eb-9c4ead370d88	Mina_Bode37@gmail.com	Pat74
22eb4210-992f-4e13-91e8-134fbe441a89	Maddison_Beer@yahoo.com	Cydney73
255c4f3d-d08d-4493-be2f-d3bfc431404b	Jalen_Feil5@hotmail.com	Theo61
25d90a7b-dc42-4dc9-9709-09fd3cbfc6d1	Christa34@hotmail.com	Mathew_Fadel55
28ffb4c4-04d7-425c-a4d7-9516a4959318	Tiana_OConner@hotmail.com	Micheal_Schuppe65
2aa39c8d-59a2-45e1-a390-9bcb95ccbf2a	Erna_Mayer57@hotmail.com	Damon.Beahan-Orn
2b775ca4-2d08-429b-a572-1c173913ece9	Earline96@yahoo.com	Reynold57
36ef8227-dbdc-4041-9474-e4328bba6e35	Jasper.Doyle@yahoo.com	Tremayne51
3807fb66-7a9a-4afd-bf4a-dc772c86a2d6	Alycia_Aufderhar40@gmail.com	Penelope_MacGyver55
3ac2df49-fb2c-46c9-81bc-60826dd82b23	Raven74@hotmail.com	Santino.Dooley19
3d43e518-e5c4-44dc-a4d2-e7aa8f49fa82	Coralie.Hahn@gmail.com	Leslie_DAmore
42f0bc83-eba4-44b6-9309-1f14c2821027	Jakob.Sanford96@gmail.com	Carleton_Wisoky3
4c219478-9615-4cb4-b813-cd0461956600	Justice.Dicki65@hotmail.com	Troy74
4d4fc797-f789-472a-a06e-99fb14b8f09e	Patricia_Prosacco@gmail.com	Rodger_Wilderman84
4dc89a71-a84a-4825-82f5-52a2a31cd4fe	Sibyl25@yahoo.com	Elvis.Wisozk
4f1c9ad5-5435-4739-814c-77c364e55855	Bonita_Paucek@yahoo.com	Trey24

Creating Our Routes

GET /user/:id/edit To get form to edit the username, based on id

This form will require a password

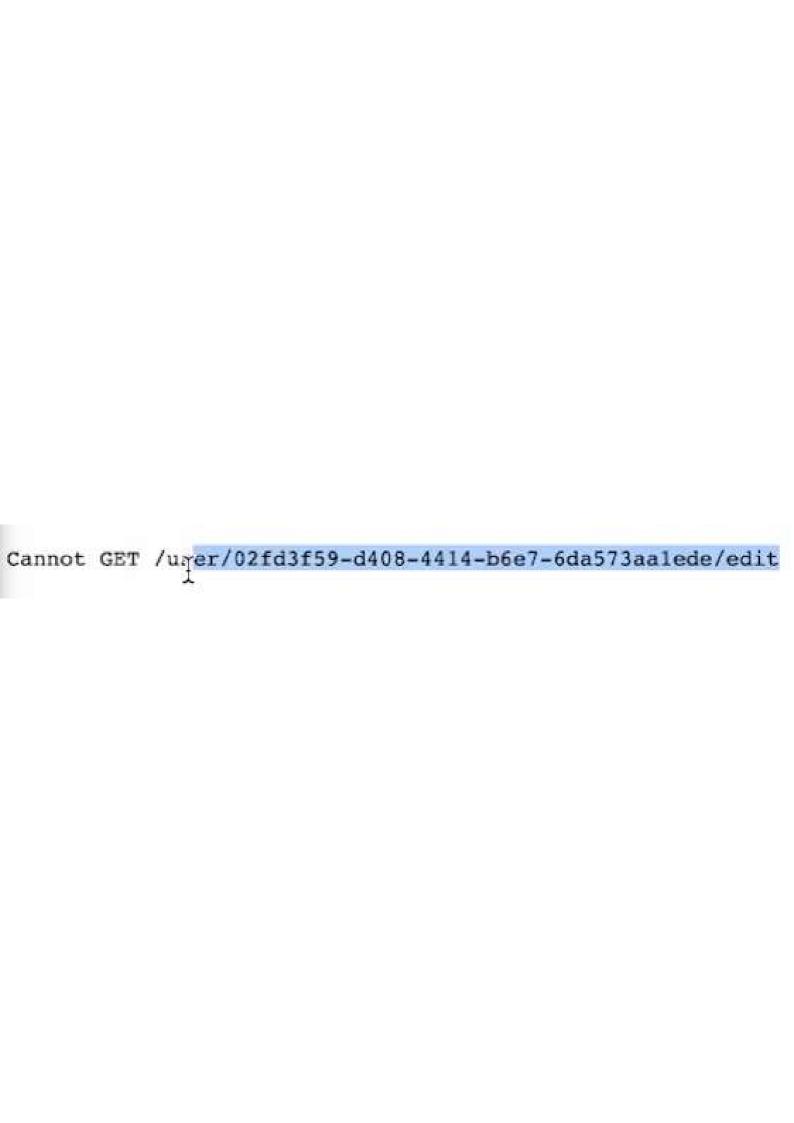
PATCH /user/:id To edit username, if correct password was entered in form

```
views \rangle \Leftrightarrow showusers.ejs \rangle \Leftrightarrow html \rangle \Leftrightarrow body \rangle \Leftrightarrow table \rangle \Leftrightarrow ? \rangle \Leftrightarrow tr \rangle \Leftrightarrow td
∨ SQLCLASS
  > node_modules
                            15
                                    <body>

√ views

                                       home.ejs
                            17
                                        Id
  showusers.ejs
                                          Email
                            19
 JS index.js
                            20
                                          Username
 {} package-lock.json
                            21
 {} package.json
                                        <% for(user of users) { %>
                            22
                            23
                                        schema.sql
                                          <%= user.id %>
                            24
                            25
                                          <<td>
                            27
                                          <form method="GET" action="/user/<%=user.id%>/edit">
                                          I | <button>Edit username</button>
                            29
                            30
                                            </form>
                                          32
                                        <% } %>
                            34
```

Id	Email	Username	
02fd3f59-d408-4414-b6e7-6da573aa1ede	Lysanne18@hotmail.com	Michaela15	Edit username
07a0ab83-221e-4b43-874a-5a9f69895ced	Francis_Krajcik@yahoo.com	Lauriane.Mertz3	Edit username
09198186-4202-45bb-a7d7-76170bd70490	Marley_Metz87@gmail.com	Tianna71	Edit username
0a6b3c30-e064-463c-b1b2-0bfd9196e31d	Mckayla37@gmail.com	Virgie62	Edit username
0b20452f-b0c9-4bcb-a12f-457137e35ac3	Anita.Wilderman69@yahoo.com	Davin_Gutkowski	Edit username
123	abc@gmail.com	123_newuser	Edit username
123b	abc@gmail.comb	123_newuserb	Edit username
123c	abc@gmail.comc	123_newuserc	Edit username
12f1c618-e24e-4b5b-8624-db04f2a8d14c	Sonia.Bednar-Abernathy99@hotmail.com	Trisha95	Edit username
151e72cb-1098-42fb-be53-c470e09d7a96	Mackenzie_Blanda6@gmail.com	Odie35	Edit username
17e1087b-9d73-46a6-ba77-441da71066f0	Clotilde.Gibson@yahoo.com	Ulises55	Edit username
1e740688-f4dd-4fa7-a6a3-119fbecb27a0	Gabe_Buckridge@yahoo.com	Esther54	Edit username
1fc0bed1-d300-4893-94eb-9c4ead370d88	Mina_Bode37@gmail.com	Pat74	Edit username
22eb4210-992f-4e13-91e8-134fbe441a89	Maddison_Beer@yahoo.com	Cydney73	Edit username
255c4f3d-d08d-4493-be2f-d3bfc431404b	Jalen_Feil5@hotmail.com	Theo61	Edit username
25d90a7b-dc42-4dc9-9709-09fd3cbfc6d1	Christa34@hotmail.com	Mathew_Fadel55	Edit username
28ffb4c4-04d7-425c-a4d7-9516a4959318	Tiana_OConner@hotmail.com	Micheal_Schuppe65	Edit username
2aa39c8d-59a2-45e1-a390-9bcb95ccbf2a	Erna_Mayer57@hotmail.com	Damon.Beahan-Orn	Edit username
2b775ca4-2d08-429b-a572-1c173913ece9	Earline96@yahoo.com	Reynold57	Edit username
36ef8227-dbdc-4041-9474-e4328bba6e35	Jasper.Doyle@yahoo.com	Tremayne51	Edit username
3807fb66-7a9a-4afd-bf4a-dc772c86a2d6	Alycia_Aufderhar40@gmail.com	Penelope_MacGyver55	Edit username
3ac2df49-fb2c-46c9-81bc-60826dd82b23	Raven74@hotmail.com	Santino.Dooley19	Edit username
3d43e518-e5c4-44dc-a4d2-e7aa8f49fa82	Coralie.Hahn@gmail.com	Leslie_DAmore	Edit username
42f0bc83-eba4-44b6-9309-1f14c2821027	Jakob.Sanford96@gmail.com	Carleton_Wisoky3	Edit username
4c219478-9615-4cb4-b813-cd0461956600	Justice.Dicki65@hotmail.com	Troy74	Edit username



```
□
                   edit.ejs
JS index.js
                                 X
views > \Leftrightarrow edit.ejs > \Leftrightarrow html > \Leftrightarrow body > \Leftrightarrow h2
        <!DOCTYPE html>
        <html lang="en">
          <head>
             <meta chakset="UTF-8" />
             <meta name="viewport" content="width=device-width, initial-scale=1.0" />
             <title>Edit Username</title>
           </head>
           <body>
             <h2>You are about to edit this user</h2>
          </body>
                                                   abc Username
        </html>
  12
```

```
EXPLORER
                          Js index.js
                                      edit.ejs
∨ SQLCLASS
                          JS index.js > 😭 app.get("/user/:id/edit") callback
  > node_modules
                           44

√ views

                           45
                                   try {
                                     connection.query(q, (err, users) => {
  edit.ejs
                           47
                                       if (err) throw err;
  home.ejs
                                       res.render("showusers.ejs", { users });
  showusers.ejs
                           49
                                     });
 Js index.is
                                   } catch (err) {
                           50
                                     console.log(err);
                           51
 {} package-lock.json
                                     res.send("some error in DB");
                           52
 {} package.json
                           53
 schema.sql
                                 });
                           54
                           55
                           56
                                 //Edit Route
                                 app.get("/user/:id/edit", (req, res) => {
                           57
                                     res.render("edit.ejs")
                           58
                                 })
                           59
                           60
                                 app.listen("8080", () => {
                           61
                           62
                                   console.log("server is listening to port 8080");
                                 });
                           63
```

```
55
56    //Edit Route
57    app.get("/user/:id/edit", (req, res) => {
    let { id } = req.params;
    res.render("edit.ejs");
60  });
61
```

Yon	are	about	to e	dit th	is user	r

```
54
      });
55
56
      //Edit Route
      app.get("/user/:id/edit", (req, res) => {
57
        let { id } = req.params;
58
        let q = `SELECT * FROM user WHERE id='${id}'`;
59
60
        try {
61
          connection.query(q, (err, result) => {
62
            if (err) throw err;
63
            res.render("edit.ejs");
64
                                                       I
          });
65
        } catch (err) {
66
          console.log(err);
67
          res.send("some error in DB");
68
69
        }
      });
70
71
```

```
SQLCLASS
                           Js index.js > 🗘 app.get("/user/:id/edit") callback > 🗘 connection.query() callback
 > node_modules
                                    let { id } = req.params;
                                    let q = `SELECT * FROM user WHERE id='${id}'`;

√ views

                           59
                           60
 edit.ejs
                           61
                                    try {
 home.ejs
                                      connection.query(q, (err, result) => {
                           62
 showusers.ejs
                                        if (err) throw err;
                           63
JS index.js
                           64
                                        console.log(result);
                                        res.render("edit.ejs");
{} package-lock.json
                           65
                           66
                                      });
{} package.json
                           67
                                    } catch (err) {
schema.sql
                                      console.log(err);
                                      res.send("some error in DB");
                           69
                           70
                                  });
                           71
                          72
                           PROBLEMS
                                       OUTPUT
                                                  TERMINAL
                                                              DEBUG CONSOLE
                           [nodemon] starting `node index.js`
                           server is listening to port 8080
                           [nodemon] restarting due to changes...
[nodemon] starting `node index.js`
                           server is listening to port 8080
                               id: '09198186-4202-45bb-a7d7-76170bd70490',
                               wsername: 'Tianna71',
                               email: 'Marley_Metz87@gmail.com',
                               password: 'zeEmhGnsACCWLHs'
OUTLINE
```

TIMELINE

```
});
75
      //UPDATE (DB) Route
76
77
      app.patch("/user/:id", (req, res) => {
        res.send("updated");
78
79
     });
80
```

14

```
EXPLORER
                         Js index.js
                                     ×
                                          edit.ejs
∨ SQLCLASS
                          Js index.js > ...
                                 const { faker } = require("@faker-js/faker");
  > node_modules
                                 const mysql = require("mysql2");

√ views

                                 const express = require("express");
  edit.ejs
                                 const app = express();
  home.ejs
                                 const path = require("path");
                                 const methodOverride = require("method-override");
  showusers.ejs
 JS index.js
                                 app.use(methodOverride("_method"));
 {} package-lock.json
                                 app.use(express.urlencoded({ extended: true }));
 {} package.json
                                 app.set("view engine", "ejs");
 schema.sql
                                 app.set("views", path.join(__dirname, "/views"));
                           11
                           12
                           13
                                 const connection = mysql.createConnection({
                           14
                                   host: "localhost",
                                  user: "root",
                           15
                                   database: "delta_app",
                           16
                                  password: "mysql@123",
                           17
                           18
                                 }):
```

19

```
EXPLORER
                                 JS index.js
                                                   edit.ejs
      V SQLCLASS
                                 views > ⇔ edit.ejs > ⇔ html > ⇔ body > ⇔ form
                                         <!DOCTYPE html>
        > node_modules
                                         <html lang="en">

√ views

                                           <head>
         edit.ejs
                                              <meta charset="UTF-8" />
         home.ejs
                                              <meta name="viewport" content="width=device-width, initial-scale=1.0" />
                                              <title>Edit Username</title>
         showusers.ejs
                                           </head>
        JS index.js
                                           <body>
        {} package-lock.json
<h2>You are about to edit this user : <= user.email %></h2>
        {} package.json
                                             <form method="post" action="/user/<%=user.id%>?_method=PATCH">
  <textarea name="username"> <%= user.username%> </textarea>
        schema.sql
                                               <input type="password" name="password" placeholder="enter password" />
                                                                                                          I
                                               <button>Edit
                                           </body>
                                         </html>
```

Creating Our Routes

GET /user/:id/edit

To get form to edit the username, based on id

This form will require a password

2) check if (form. parsword = pars)
3) whate wername

PATCH Juserl:id

To edit username, if correct password was entered in form

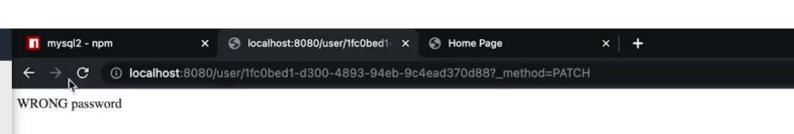


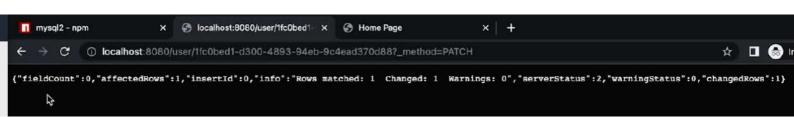


```
EXPLORER
                         Js index.js
                                          edit.ejs
                          Js index.js > ( app.patch("/user/:id") callback
∨ SQLCLASS
  > node_modules
                                });

√ views

                                //UPDATE (DB) Route
  edit.ejs
                                ap.patch("/user/:id", (req, res) => {
  home.ejs
                                   let { id } = req.params;
  showusers.ejs
                           79
                                   let { password: formPasg, username: newUsername } = req.body;
 JS index.js
                                   let q = `SELECT * FROM user WHERE id='${id}'`;
 {} package-lock.json
 {} package.json
                                     connection.query(q, (err, result) => {
 schema.sql
                                       if (err) throw err;
                                       let user = result[0];
                                       if (formPass != user.password) {
                                         res.send("WRONG password");
                                       } else {
                                         let q2 = `UPDATE user SET username='${newUsername}' WHERE id='${id}'`;
                                         connection.query(q2, (err, result) => {
                                           if (err) throw err;
                                           res.send(result);
                                         });
                                     });
                                   } catch (err) {
```





17e1087b-9d73-46a6-ba77-441da71066f0	Clotilde.Gibson@yahoo.com	Ulises55	Edit username
1e740688-f4dd-4fa7-a6a3-119fbecb27a0	Gabe_Buckridge@yahoo.com	Esther54	Edit username
1fc0bed1-d300-4893-94eb-9c4ead370d88	Mina_Bode37@gmail.com	shradh	Edit username
22eb4210-992f-4e13-91e8-134fbe441a89	Maddison_Beer@yahoo.com	Cydney73	Edit username
255c4f3d-d08d-4493-be2f-d3bfc431404b	Jalen_Feil5@hotmail.com	Theo61	Edit username

```
EXPLORER
                                Js index.js
                                                   edit.ejs
                                 JS index.js \Rightarrow \bigcirc app.patch("/user/:id") callback \Rightarrow \bigcirc connection.query() callback \Rightarrow \bigcirc connection.quer
    ∨ SQLCLASS
      > node_modules
                                          try {

√ views

                                             connection.query(q, (err, result) => {
       O edit.ejs
                                               if (err) throw err;
       home.ejs
                                               let user = result[0];
       showusers.ejs
                                               if (formPass != user.password) {
      JS index.js
                                                 res.send("WRONG password");
                                               } else {
     {} package-lock.json
                                                 let q2 = `UPDATE user SET username='${newUsername}' WHERE id='${id}'`;
     {} package.json
                                                 connection.query(q2, (err, result) => {
      schema.sql
                                                    if (err) throw err;
5
                                                    res.redirect("/user");
                                                 });
                                             3);
                                           } catch (err) {
                                             console.log(err);
                                             res.send("some error in DB");
```

```
75
 76
      //UPDATE (DB) Route
 77
      app.patch("/user/:id", (req, res) => {
 78
         let { id } = req.params;
        let { password: formPass, username: newUsername } = req.body;
 79
        let q = `SELECT * FROM user WHERE id='${id}'`;
 80
 81
 82
        try {
          connection.query(q, (err, result) => {
 83
             if (err) throw err;
 84
             let user = result[0];
 85
             if (formPass != user.password) {
 86
               res.send("WRONG password");
 87
             } else {
 88
 89
               let q2 = `UPDATE user SET username='${newUsername}' WHERE id='${id}'`;
               connection.query(q2, (err, result) => {
 90
                 if (err) throw err;
 91
                 res.redirect("/user");
 92
 93
               });
 94
 95
           });
        } catch (err) {
96
          console.log(err);
 97
           res.send("some error in DB");
 98
        }
                                          I
 99
      });
100
```

101

Homework Tasks

Create Form to Add a new user to the Database

Create Form to Delete a user from Database if they enter correct email id & password.