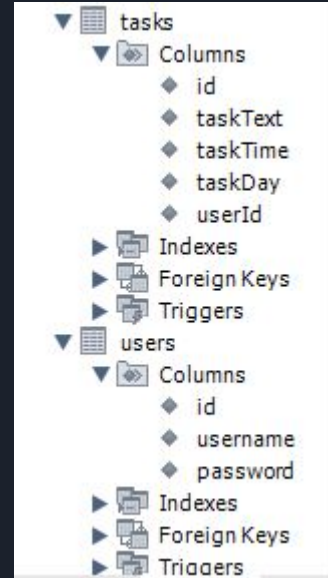# Task Manager

Ben Utter and Garrett Goodney

3-Tier Client Server Application

```
fetch(`http://localhost:3000/getTasks?userId=${userId}`)
    .then(response => response.json())
    .then(tasks => {
        taskList.innerHTML = '';

    tasks.forEach(task => {
        const taskItem = document.createElement("li");
        const taskDate = new Date(task.taskDay);
```

```
server.listen(port, hostname, function () {
    console.log(`Server running at http://${hostname}:${port}`);
});

//sql info goes here
const db = mysql.createConnection({
    host: 'localhost',
    user: 'root',
    password: 'password',
    database: 'dbms'
});

db.connect(() => {
    console.log('Connected to MySQL');
});
```

```
▼ 🗔 tasks
    ▼ 🗝 Columns
        ◆ id
        ◆ taskText
        ◆ taskTime
        ◆ taskDay
        ◆ userId
    ▶ 🗂 Indexes
    ▶ 🗂 Foreign Keys
    ▶ 🗂 Triggers
▼ 🗔 users
    ▼ 🗝 Columns
        ◆ id
        ◆ username
        ◆ password
    ▶ 🗂 Indexes
    ▶ 🗂 Foreign Keys
    ▶ 🗂 Triggers
```

Web Browser   NodeJS Server   MySQL Database

SQL Tables

Users table

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G
id	INT	☑	☑	☐	☐	☐	☐	☑	☐
username	VARCHAR(255)	☐	☑	☐	☐	☐	☐	☐	☐
password	VARCHAR(255)	☐	☑	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐	☐	☐

Tasks table

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G
id	INT	☑	☑	☐	☐	☐	☐	☑	☐
taskText	VARCHAR(255)	☐	☑	☐	☐	☐	☐	☐	☐
taskTime	TIME	☐	☑	☐	☐	☐	☐	☐	☐
taskDay	DATE	☐	☑	☐	☐	☐	☐	☐	☐

ER Diagram

users
- id INT
- username VARCHAR(255)
- password VARCHAR(255)
- Indexes

tasks
- id INT
- taskText VARCHAR(255)
- taskTime TIME
- taskDay DATE
- userId INT
- Indexes
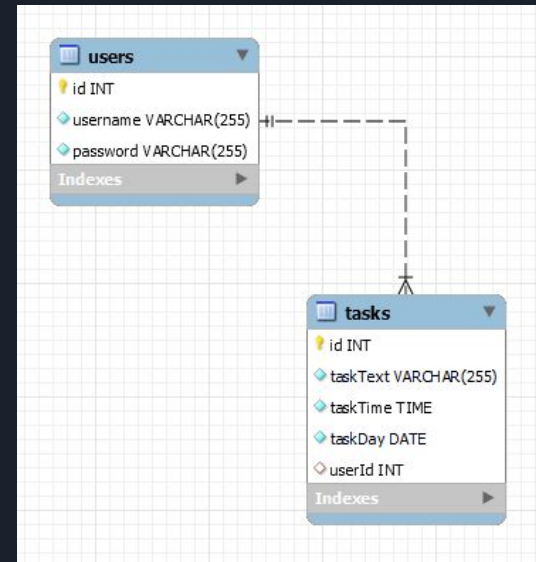
MySQL Queries

Insert - Register: INSERT INTO users (username, password)

Select - Login: SELECT * FROM users WHERE username = ? AND password = ?

Insert - New task: INSERT INTO tasks (taskText, taskTime, taskDay, userId)

Select - Get tasks: SELECT * FROM tasks WHERE userId = ?

Delete - Delete task: DELETE FROM tasks WHERE id = ?

Update - Edit task: UPDATE tasks SET taskText = ?, taskTime = ?, taskDay = ? WHERE id = ?

Error Handling

- Login page verification
- Cannot create tasks without a name, time, or date
- Cannot edit without confirming a name and time
- All requests print errors to console on the server and client end
- Errors checked on client and server side

Task Manager

Invalid username or password

Close

Statement of ranking

Member 1: Garrett Goodney

My teammate and I agree that I handled 50% of the overall project. My specific tasks included:

Task 1: I created the SQL database, tables, and ER diagram to go along with it.

Task 2: I wrote the JS file, and the connections used to connect to the frontend and modify the SQL database.

Task 3: I modified the front end code to implement the JS code I wrote.

Task 4: I added some of the CSS styling to the frontend to make it look better, along with modifying some of the on screen variables to be formatted in a visually pleasing way.

Task 5: I added comments throughout our code to explain how it worked.

Statement of ranking

Member 2: Benjamin Utter

My teammate and I agree that I handled 50% of the overall project. My specific tasks included:

Task 1: I created frontend code to have users create, edit and delete tasks

Task 2: I wrote CSS code to provide a welcoming interface

Task 3: I created interactive buttons that could connect to the backend

Task 4: I integrated data validation for the input fields in the front end

Task 5: I created the calendar (almost working)

Task 6: I helped create the slideshow and pasted some pictures into it

Github Repo

https://github.com/goodneyg/DBMS-Final-Project