OPEN SOURCE PRACTICE

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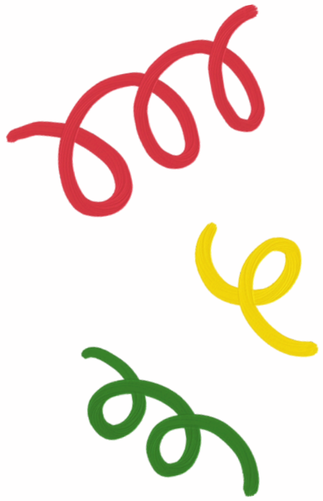
1.SQL Part



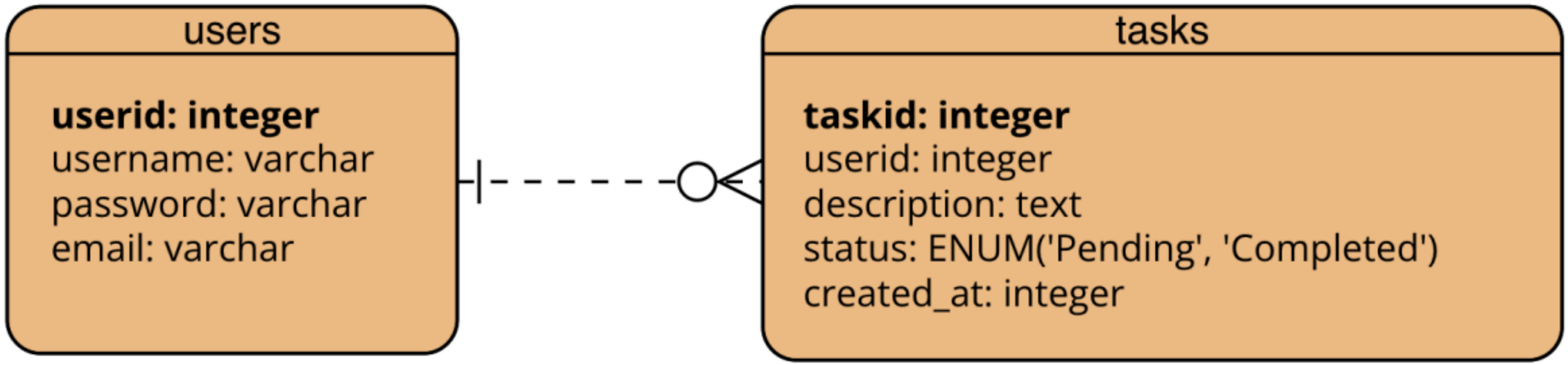
create.sql

```sql

CREATE TABLE users (
    user_id INT AUTO_INCREMENT PRIMARY KEY,
    username VARCHAR(50) NOT NULL,
    password VARCHAR(255) NOT NULL,
    email VARCHAR(100) UNIQUE
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_unicode_ci;


CREATE TABLE tasks (
    task_id INT AUTO_INCREMENT PRIMARY KEY,
    user_id INT NOT NULL,
    description TEXT NOT NULL,
    status ENUM('pending', 'completed') DEFAULT 'pending',
    created_at DATETIME DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (user_id) REFERENCES users(user_id) ON DELETE CASCADE
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_unicode_ci;
```

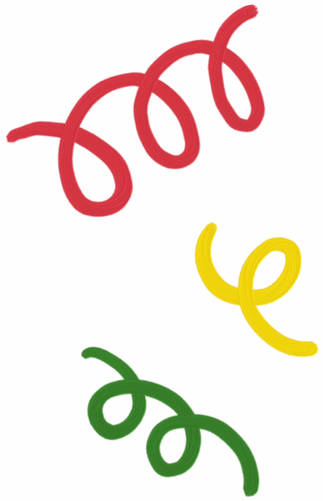
test_data.sql

```sql
-- Insert users
INSERT INTO users (username, password, email) VALUES
('hoge', 'hashed_password1', 'hoge@example.com'),
('piyo', 'hashed_password2', 'piyo@example.com'),
('kiki', 'hashed_password3', 'kiki@example.com'),
('tutu', 'hashed_password4', 'tutu@example.com');

-- Insert tasks
INSERT INTO tasks (user_id, description, status) VALUES

-- User 1: hoge
(1, 'Research Chinese literature report at the library', 'pending'),
(1, 'Submit English reading comprehension assignment', 'completed'),
(1, 'Check exam coverage for midterm', 'pending'),
(1, 'Practice traditional Chinese character typing', 'completed'),

-- User 2: piyo
(2, 'Record living expenses (using budgeting app)', 'completed'),
(2, 'Check balance of transportation IC card (EasyCard)', 'completed'),

-- User 3: kiki
(3, 'Submit Python exercise assignment', 'pending'),
(3, 'Prepare for international student welcome event', 'completed'),
(3, 'Organize GitHub account', 'pending'),

-- User 4: tutu
(4, 'Submit experiment report', 'completed'),
(4, 'Schedule meeting with academic advisor', 'pending'),
(4, 'Summarize experiment data in Excel', 'completed');
```

Entity Relationship Diagram (ERD)



2.PHP Part



db.php

```php
<?php

You, 22 時間前 | 1 author (You)
class Database
{
        private PDO $pdo;

        public function __construct()
        {
                $dsn = 'mysql:host=127.0.0.1;port=3301;dbname=todoApp;charset=utf8mb4';
                $username = 'root';
                $password = 'fo39ajf3';


                try {
                        $this->pdo = new PDO($dsn, $username, $password);
                } catch (PDOException $e) {
                        die('Connection failed: ' . $e->getMessage());
                }
        }

        public function getPdo(): PDO
        {
                return $this->pdo;
        }
}

$db = new Database();
$pdo = $db->getPdo();

session_start();
```

login.php

```php
<?php
require 'db.php';

if ($_SERVER['REQUEST_METHOD'] === 'POST') {
        $username = isset($_POST['username']) ? trim($_POST['username']) : '';
        $password = isset($_POST['password']) ? $_POST['password'] : '';

        if ($username === '') {
                $errorMessage = "Username is required.";
                exit;
        }

        $stmt = $pdo->prepare("SELECT * FROM users WHERE username = ?");
        $stmt->execute([$username]);
        $user = $stmt->fetch(PDO::FETCH_ASSOC);

        if ($user && $password === $user['password']) {
                $_SESSION['user_id'] = $user['user_id'];
                header('Location: index.php');
                exit();
        } else {
                $errorMessage = 'Login failed: Incorrect username or password.';
        }
}
?>

```

index.php

```php
<?php
require 'db.php';

if (!isset($_SESSION['user_id'])) {
    header('Location: login.php');
    exit();
}

$stmt = $pdo->prepare("SELECT * FROM tasks WHERE user_id = ? ORDER BY created_at DESC");
$stmt->execute([$_SESSION['user_id']]);
$tasks = $stmt->fetchAll(PDO::FETCH_ASSOC);
?>

```

add_task.php

```php
<?php
require 'db.php';

if (!isset($_SESSION['user_id']) || empty($_POST['task_description'])) {
        header('Location: index.php');
        exit();
}

$stmt = $pdo->prepare("INSERT INTO tasks (user_id, description) VALUES (?, ?)");
$stmt->execute([$_SESSION['user_id'], $_POST['task_description']]);
header('Location: index.php');
exit();
```

complete_task.php

```php
<?php
require 'db.php';

if (!isset($_SESSION['user_id']) || empty($_POST['task_id'])) {
        header('Location: index.php');
        exit();
}


$stmt = $pdo->prepare("UPDATE tasks SET status = 'completed' WHERE task_id = ? AND user_id = ?");
$stmt->execute([$_POST['task_id'], $_SESSION['user_id']]);
header('Location: index.php');
exit();

```

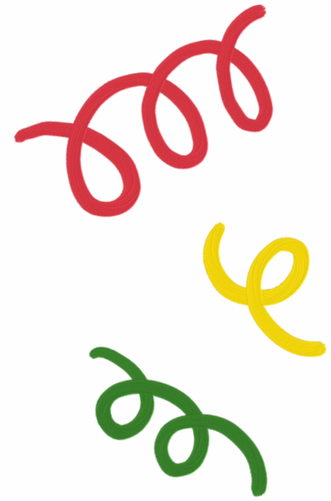
delete_task.php

```php
<?php
require 'db.php';

if (!isset($_SESSION['user_id']) || empty($_POST['task_id'])) {
        header('Location: index.php');
        exit();
}


$stmt = $pdo->prepare("DELETE FROM tasks WHERE task_id = ? AND user_id = ?");
$stmt->execute([$_POST['task_id'], $_SESSION['user_id']]);
header('Location: index.php');
exit();

```

logout.php

```php
<?php
session_start();
session_destroy();
header('Location: login.php');
exit();

```

2.HTML Part



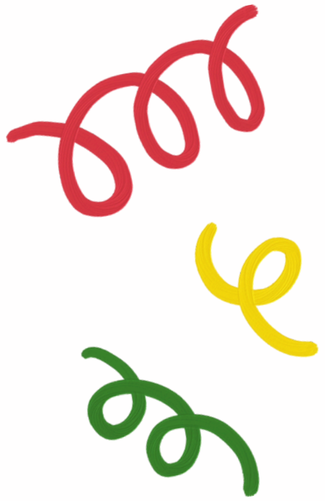
login.php

```
114 <body>
115         <h1>Todo App Login</h1>
116 
117         <?php if (!empty($errorMessage)): ?>
118                 <div class="error-message"><?= htmlspecialchars($errorMessage) ?></div>
119         <?php endif; ?>
120 
121         <form method="POST" autocomplete="off">
122                 <input type="text" name="username" required placeholder="Username" value="<?= isset($username) ?
                    htmlspecialchars($username) : '' ?>" />
123                 <input type="password" name="password" required placeholder="Password" />
124                 <button type="submit">Login</button>
125         </form>
126 </body>
```

index.php

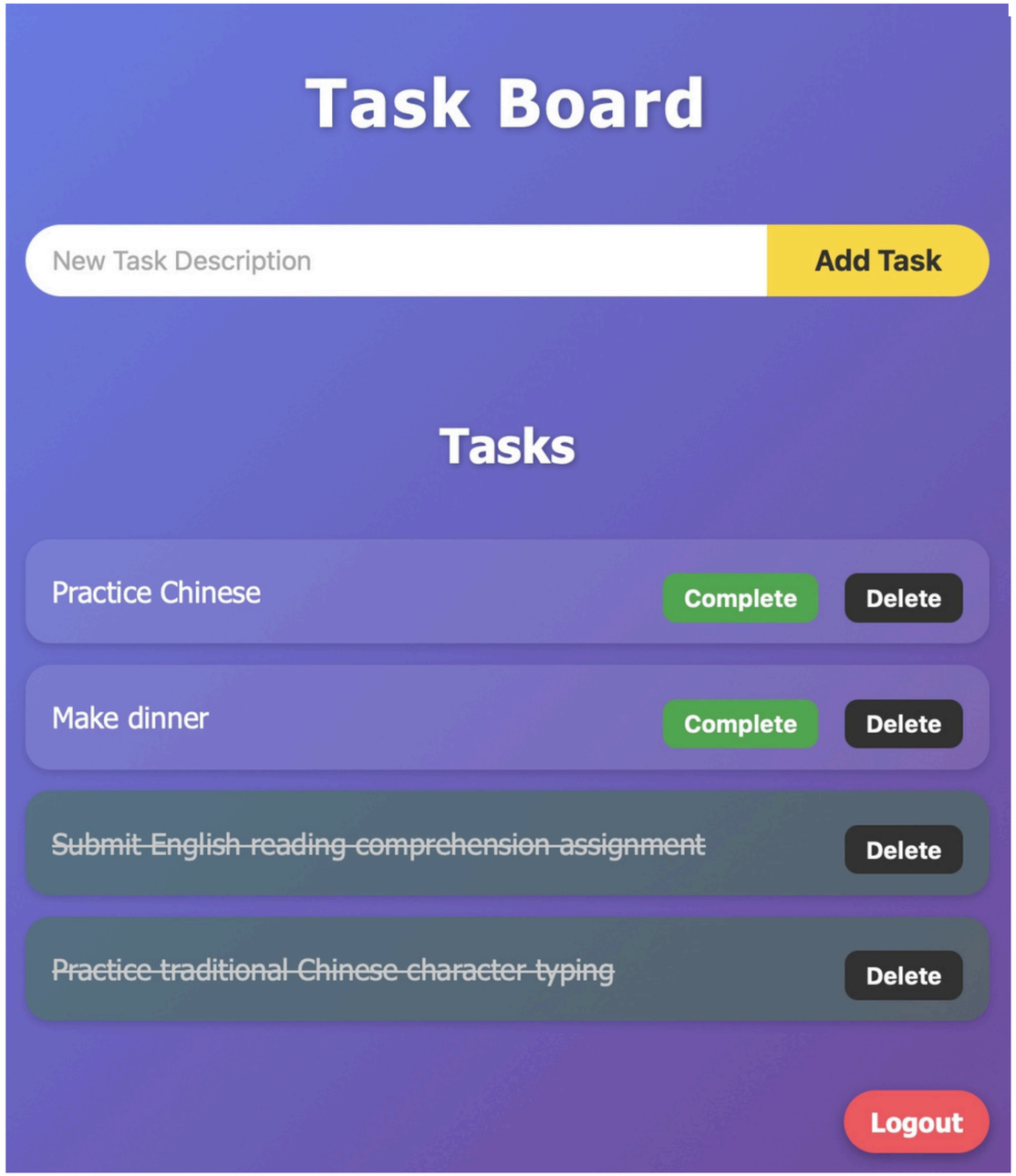
```
231 <body>
232     <h1>Task Board</h1>
233 
234     <form id="addTaskForm" action="add_task.php" method="POST" autocomplete="off">
235         <input type="text" name="task_description" required placeholder="New Task Description" maxlength="255" />
236         <button type="submit">Add Task</button>
237     </form>
238 
239     <h2>Tasks</h2>
240     <ul class="task-list" id="taskList">
241         <?php foreach ($tasks as $task): ?>
242             <li class="<?= $task['status'] === 'completed' ? 'completed' : '' ?>">
243                 <span class="task-desc"><?= htmlspecialchars($task['description']) ?></span>
244 
245 
246                 <div class="btn-group">
247                     <?php if ($task['status'] === 'pending'): ?>
248                         <form action="complete_task.php" method="POST" style="display:inline;">
249                             <input type="hidden" name="task_id" value="<?= $task['task_id'] ?>">
250                             <button type="submit" class="btn-complete">Complete</button>
251                         </form>
252                     <?php endif; ?>
253                     <form action="delete_task.php" method="POST" style="display:inline;">
254                         <input type="hidden" name="task_id" value="<?= $task['task_id'] ?>">
255                         <button type="submit" class="btn-delete">Delete</button>
256                     </form>
257                 </div>
258 
259             </li>
260         <?php endforeach; ?>
261     </ul>
262 
263     <a class="logout-link" href="logout.php">Logout</a>
264 </body>
```

3.CSS Part



Key points:

- Modern and minimal layout
- Smooth user experience across devices
- Easy-to-read fonts and clear UI components
- Color scheme:
  - Purple for backgrounds
  - Yellow for action buttons
  - Green for completed tasks



- We used display: flex to align the input and button horizontally
- Rounded corners (border-radius) for a soft, friendly feel
- Shadows and focus effects (box-shadow, :focus) to guide the user
- Responsive layout with max-width for mobile compatibility

```css
form#addTaskForm {
    margin: 1.5rem 0;
    display: flex;
    width: 100%;
    max-width: 600px;
}

input[name="task_description"] {
    flex-grow: 1;
    padding: 0.8rem 1rem;
    border-radius: 25px 0 0 25px;
    border: none;
    font-size: 1rem;
    outline: none;
    transition: box-shadow 0.3s ease;
}

input[name="task_description"]:focus {
    box-shadow: 0 0 10px 2px #ffd700;
}

button[type="submit"] {
    background: #ffd700;
    border: none;
    padding: 0 1.8rem;
```

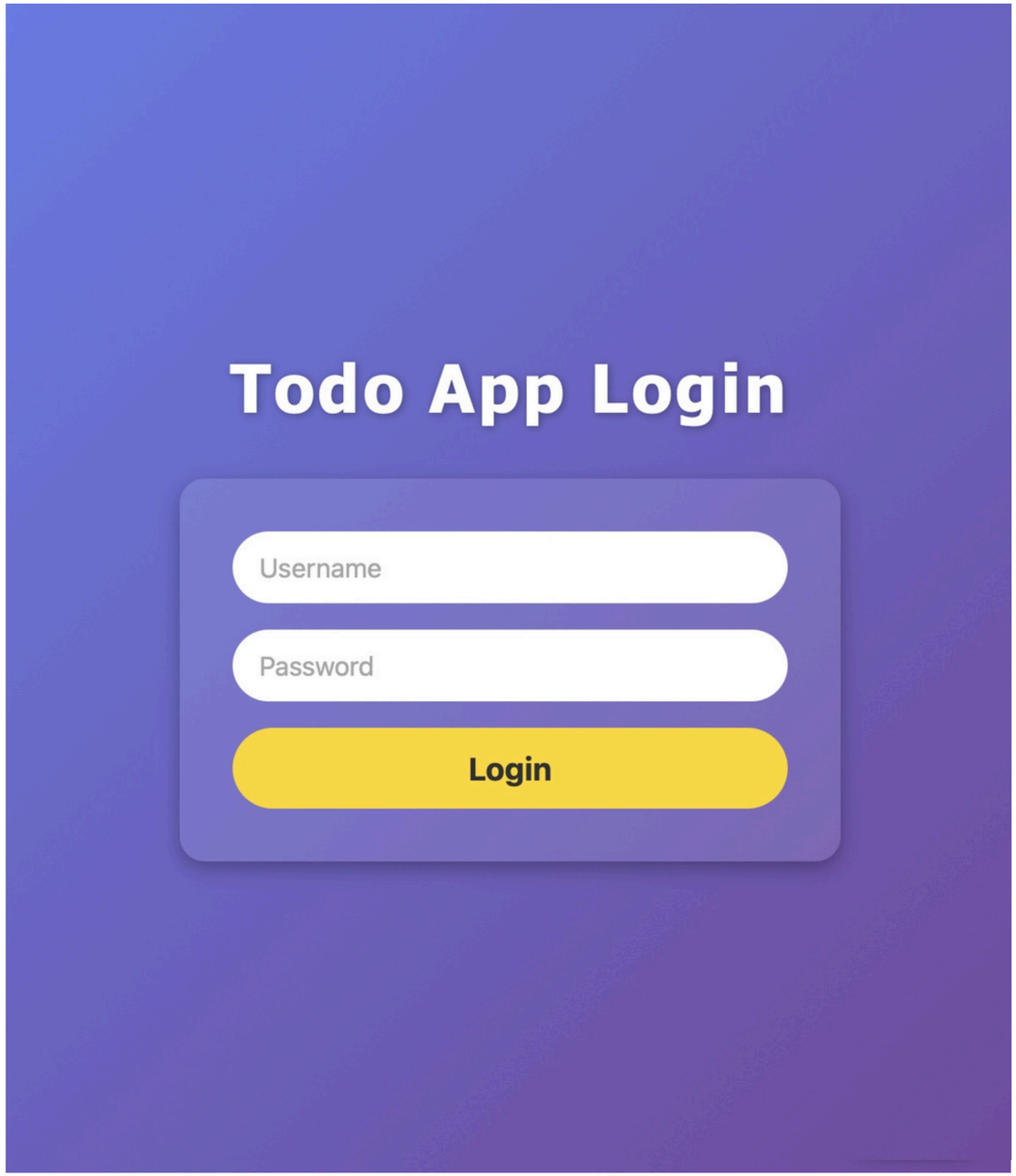
- Each task is styled as a card (li with background and shadow)
- Completed tasks have the .completed class:
- Strikethrough text
- Different color and badge
- State badges (e.g., “Pending”, “Done”) help users understand status at a glance

```css
ul.task-list li {
    background: rgba(255, 255, 255, 0.1);
    margin-bottom: 0.8rem;
    border-radius: 15px;
    padding: 0.8rem 1rem;
    display: flex;
    align-items: center;
    justify-content: space-between;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.15);
    transition: background-color 0.3s ease;
}

ul.task-list li.completed {
    background: rgba(0, 128, 0, 0.4);
    text-decoration: line-through;
    color: #ccc;
}

.task-desc {
    flex-grow: 1;
    font-size: 1.1rem;
    margin-right: 1rem;
    word-break: break-word;
}
```

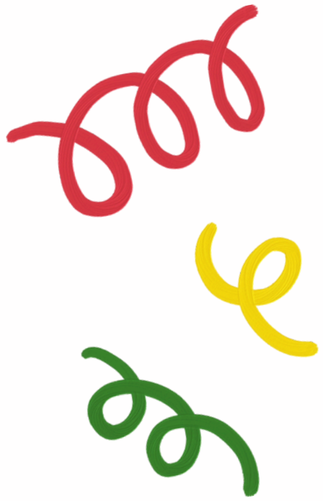
- Green "Complete" button: friendly and intuitive
- Black "Delete" button: minimal but clearly visible
- Hover effects (:hover) with slight scaling (transform: scale(1.05))
- Transitions make the UI feel smooth and responsive

```css
button.btn-complete {
    background-color: #28a745;
    color: white;
    border: none;
    padding: 0.4rem 0.8rem;
    border-radius: 8px;
    font-size: 0.9rem;
    font-weight: bold;
    cursor: pointer;
    transition: background-color 0.3s ease, transform 0.1s ease;
}

button.btn-complete:hover {
    background-color: #218838;
    transform: scale(1.05);
}

button.btn-delete {
    background: #333;
    color: white;
    border: none;
    padding: 0.4rem 0.8rem;
    border-radius: 8px;
    font-size: 0.9rem;
    font-weight: bold;
    cursor: pointer;
```

- Login box is centered using flex layout
- Background slightly transparent for a modern look
- Error messages in red for visibility and quick feedback
- Overall layout is clean to reduce distractions



4.Javascript Part



```
const deleteForms = document.querySelectorAll('form[action="delete_task.php"]');

deleteForms.forEach(form => {
    form.addEventListener('submit', (e) => {
        const li = form.closest('li');
        if (!li) return;

        if (!li.classList.contains('completed')) {
            const confirmed = window.confirm('This task is not completed. Are you
            sure you want to delete it?');
            if (!confirmed) {
                e.preventDefault();
            }
        }
    });
});
```

```
const deleteForms = document.querySelectorAll('form[action="delete_task.php"]');

deleteForms.forEach(form => {
    form.addEventListener('submit', (e) => {
        const li = form.closest('li');
        if (!li) return;

        if (!li.classList.contains('completed')) {
            const confirmed = window.confirm('This task is not completed. Are you
            sure you want to delete it?');
            if (!confirmed) {
                e.preventDefault();
            }
        }
    });
});
```

```
const deleteForms = document.querySelectorAll('form[action="delete_task.php"]');
```

- This selects all <form> elements on the page that are submitting to delete_task.php and stores them in deleteForms.

```
deleteForms.forEach(form => {
```

- Loops through each of those selected forms.

```
form.addEventListener('submit', (e) => {
```

- For each form, it listens for the submit event (when a user tries to delete a task).

```
if (!li.classList.contains('completed')) {
```

- Checks if the list item (task) does NOT have the completed class.

```
const confirmed = window.confirm('This task is not completed. Are you sure you want to delete it?');
```

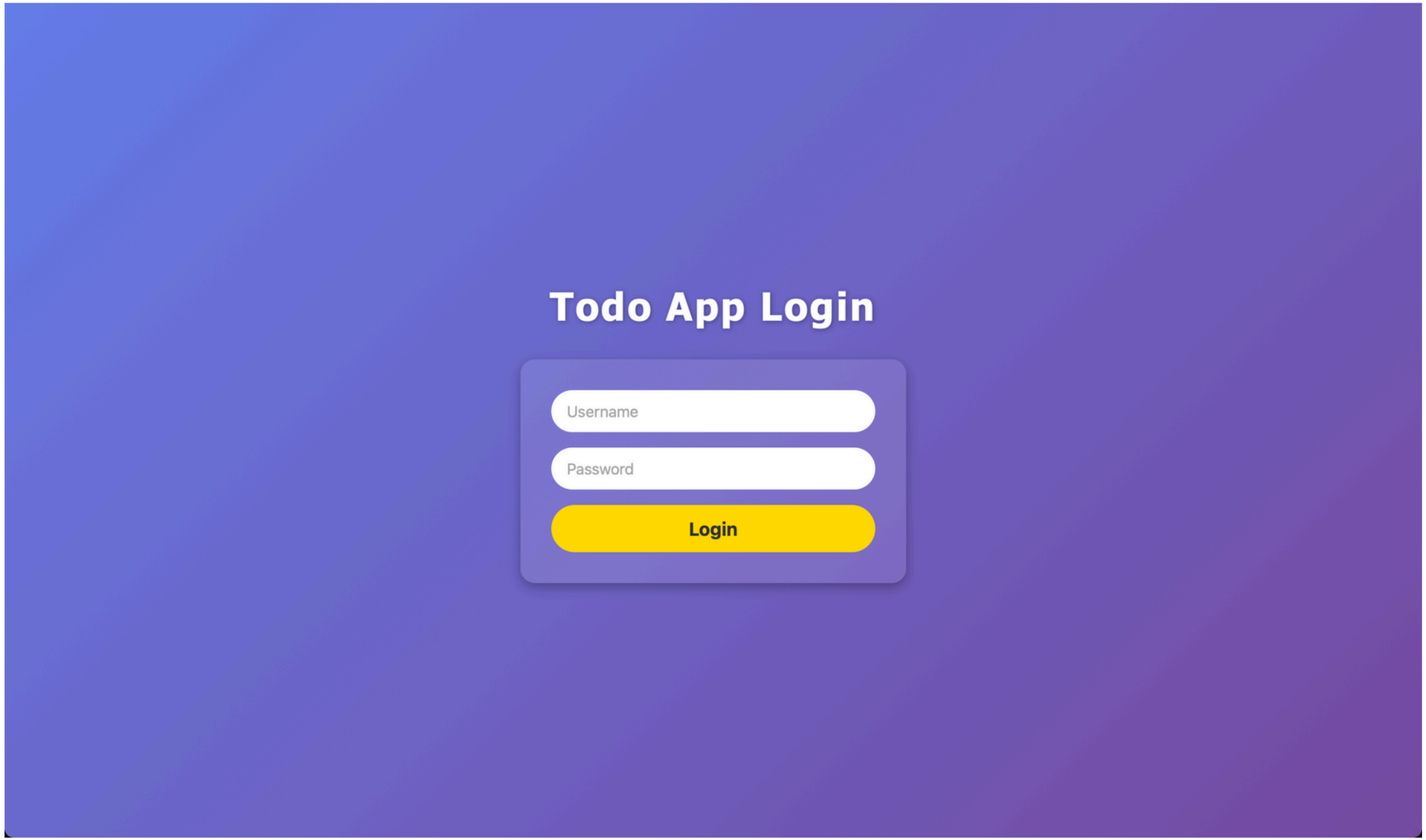
- If the task is not completed, show a confirmation popup to the user.

```
if (!confirmed) {
    e.preventDefault();
}
```

- If the user clicks "Cancel" (i.e. they are not sure), it cancels the form submission (e.preventDefault()), so the task won't be deleted.

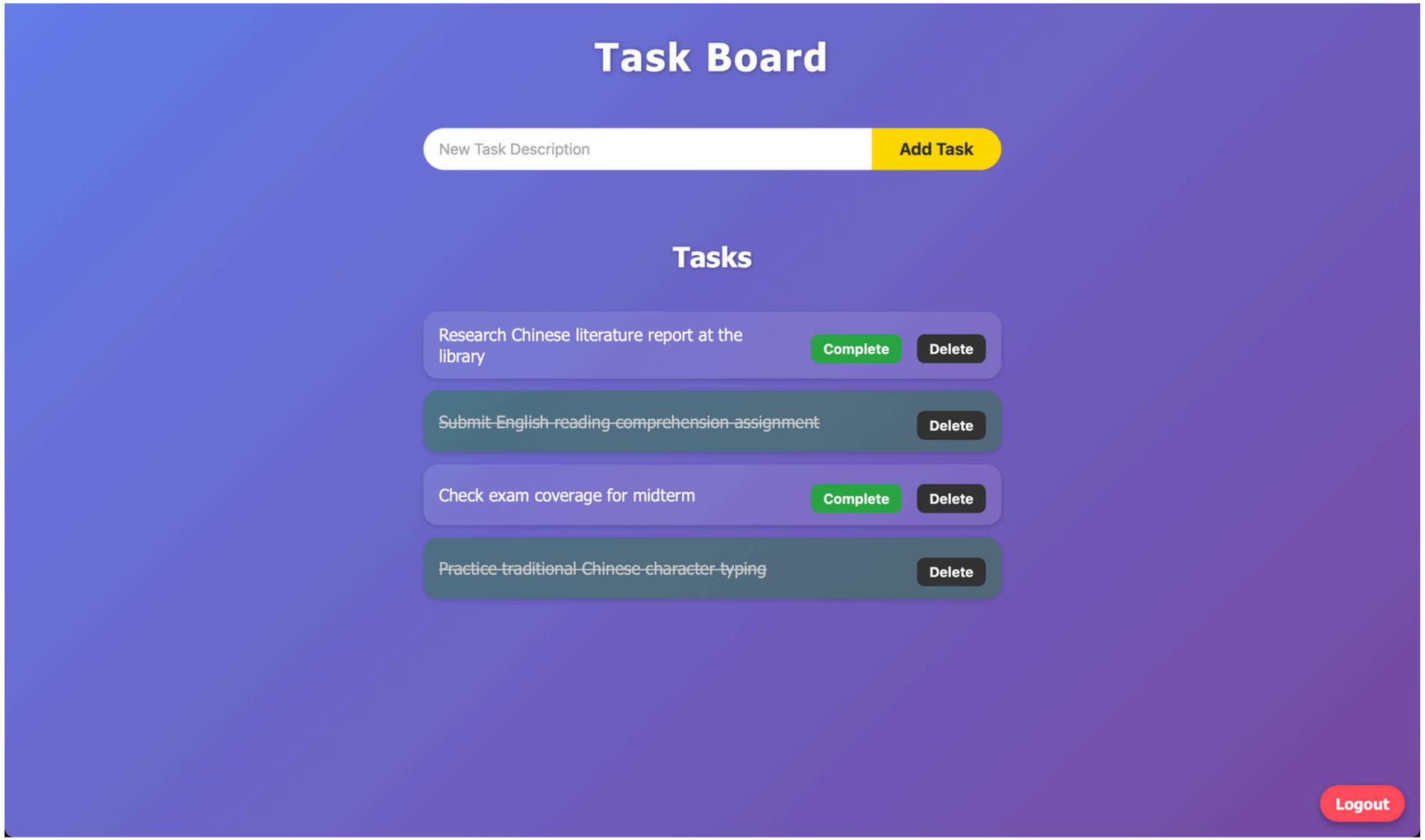
Demonstration

- Login page where users can enter the data from test_data.sql to enter.



Demonstration

- Home page where users can add and delete tasks



Thank you for paying attention!

Link to our repository: https://github.com/Not-Kronox101/MyTaskBoard
Link to our Demonstration Video: https://youtu.be/CW124Uzrm6w