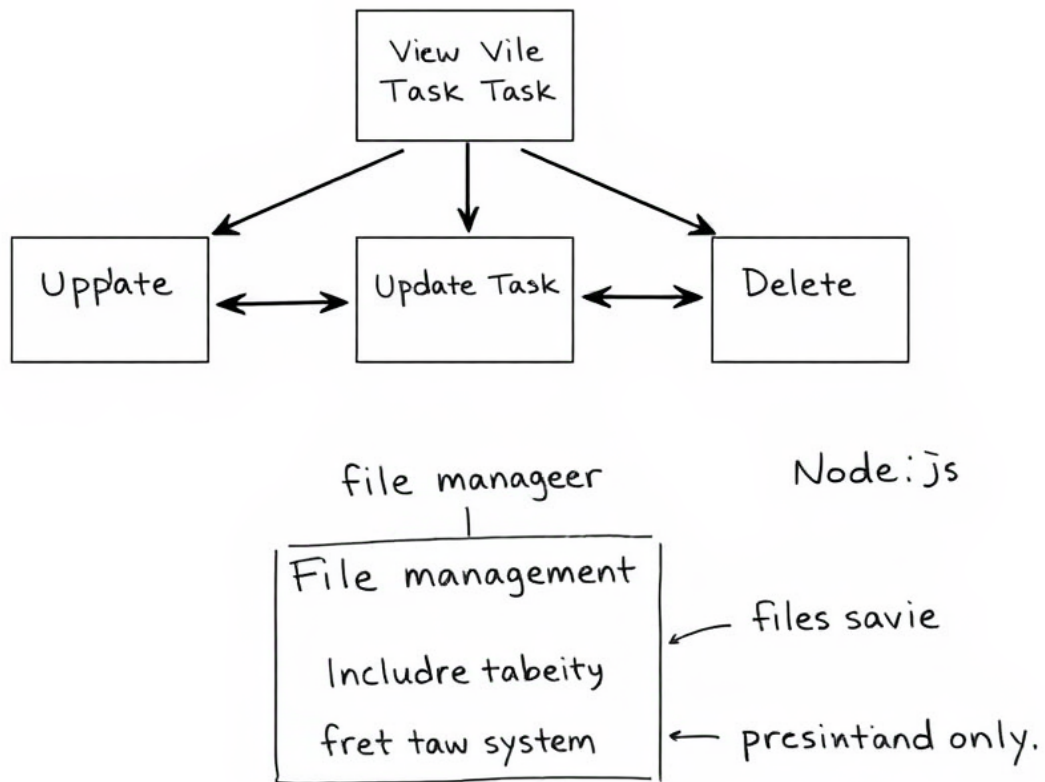


# Task Manager using OOP and File Management

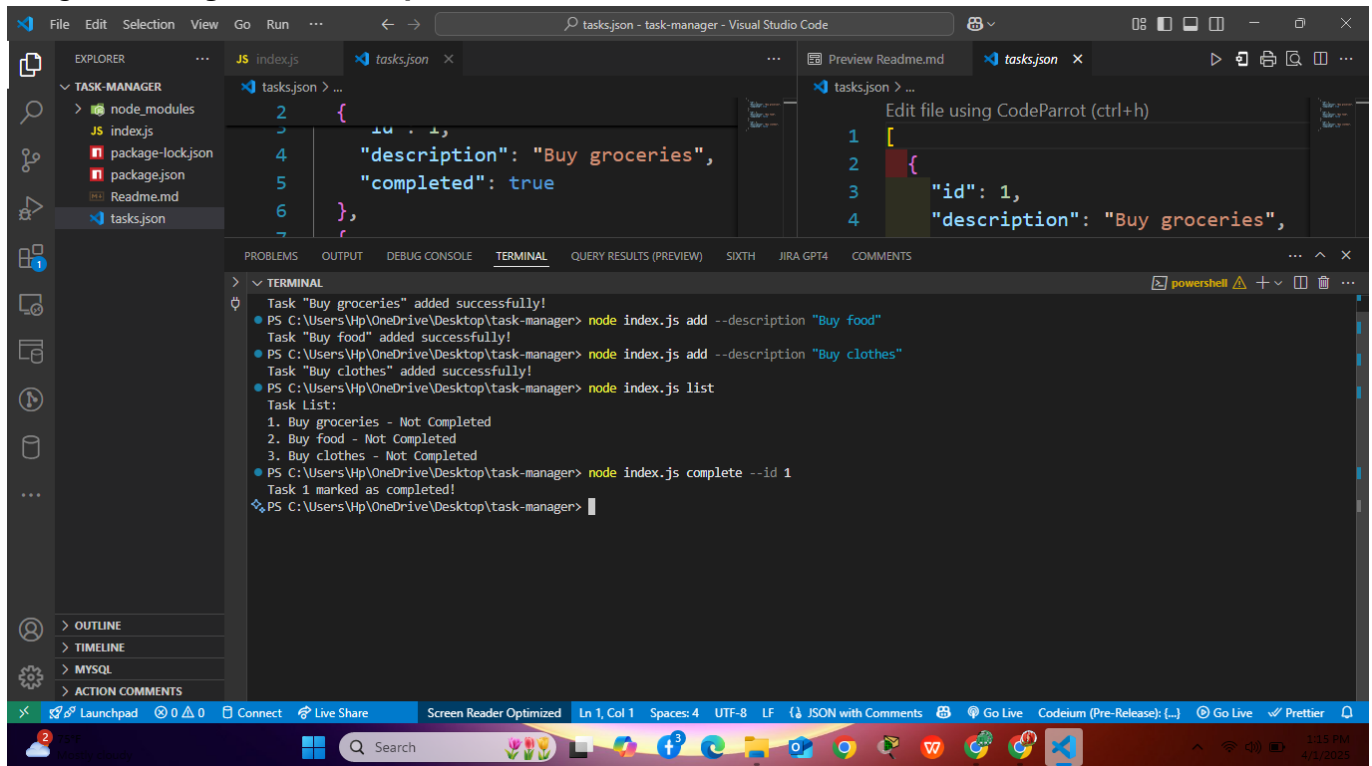
## Crud Operation



## Description

This is a command-line Task Manager application built using **Node.js** and **Object-Oriented Programming (OOP)** principles in **JavaScript**. The application allows users to efficiently manage tasks by providing functionalities to **add, view, update, and delete tasks**. To ensure data persistence, tasks are stored in a file

using **file management techniques**.



## Features

- **Add a Task:** Users can create a new task with a title, description, and status.
- **View Tasks:** Display all tasks stored in the system.
- **Update a Task:** Modify an existing task's details.
- **Delete a Task:** Remove a task from the system.
- **Persistent Storage:** All tasks are saved in a file, ensuring data retention across sessions.

## Technologies Used

- **Node.js:** JavaScript runtime for executing code.
- **File System (fs) Module:** Handles reading and writing of task data.
- **OOP Principles:** Encapsulation, inheritance, and abstraction for structured code.

## Installation

1. Ensure you have **Node.js** installed on your system.
2. Clone the repository:

```
git clone https://github.com/your-username/task-manager.git
```

3. Navigate to the project directory:

```
cd task-manager
```

#### 4. Install dependencies (if any):

```
npm install
```

## Usage

#### 1. Run the application:

```
node index.js
```

#### 2. Follow the command prompts to manage tasks.

## File Structure

```
/task-manager
|— index.js           # Entry point of the application
|— taskManager.js     # Main class handling task operations
|— tasks.json         # JSON file for storing tasks persistently
|— package.json       # Project metadata and dependencies
|— Readme.md          # Project documentation

## Future Enhancements
- Implement a database storage option (e.g., MongoDB, SQLite).
- Add task priority levels.
- Introduce a task due date feature.
- Build a CLI interface using Inquirer.js for better user interaction.

## Contributing
Feel free to contribute by submitting issues or pull requests.

## License
This project is licensed under the MIT License.
```