

# TaskCLI Documentation

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# 1 Project Information

**Project Name:** TaskCLI

**Description:** TaskCLI is a command-line task management tool designed for developers who prefer managing their workflow directly from the terminal.

## 1.1 Key Features

- Create, update, and track tasks from the terminal
- Organize tasks into projects and tags
- Set priorities and deadlines
- Daily summary emails
- GitHub integration
- Time tracking

## 1.2 Technologies Used

- Node.js
- Commander.js
- Inquirer.js
- SQLite

## 1.3 Installation Requirements

- Node.js 10+
- npm

## 1.4 Project Structure

/bin	- CLI entry point
/commands	- Command implementations
/models	- Data models
/utils	- Utility functions
/db	- Database handlers
/services	- External service integrations
/config	- Configuration files

# 2 Comprehensive README

**Task Manager CLI** is a robust local command-line interface for managing tasks, built with Node.js. It allows users to organize work, track deadlines, set priorities, and view statistics directly from the terminal, with all data stored locally.

## 2.1 Features

- Task creation, update, and deletion
- Priority assignment from Low to Urgent
- Status workflow: `todo` → `in_progress` → `review` → `done`
- Due dates and overdue tracking
- Tag-based organization
- Search and filtering
- Productivity statistics
- Persistent local storage

## 2.2 Technologies

- Runtime: Node.js
- CLI Framework: Commander.js
- ID Generation: UUID
- Storage: Local JSON file

# 3 Installation

## 3.1 Prerequisites

- Node.js (v14 or higher recommended)
- npm

## 3.2 Setup Steps

1. Clone the repository:

```
git clone <repository-url>
cd task-manager-cli
```

2. Install dependencies:

```
npm install commander uuid
```

3. Run the CLI:

```
node cli.js --help
```

## 4 Usage Guide

### 4.1 Creating a Task

#### Basic Command

```
node cli.js create "Finish_project_documentation"
```

#### Advanced Command

```
node cli.js create "Buy_groceries" -d "Milk,Eggs,Bread" -p 3 -u  
2023-12-25 -t "personal,shopping"
```

### 4.2 Viewing Tasks

```
node cli.js list
```

### 4.3 Updating Task Status

```
node cli.js status <task_id> in_progress  
node cli.js status <task_id> done
```

### 4.4 Viewing Statistics

```
node cli.js stats
```

## 5 Step-by-Step Task Lifecycle Guide

### 5.1 Step 1: Create a Task

```
node cli.js create "Submit_Q3_Report" -d "Include_financial_summary" -p  
4 -u 2023-11-30 -t "work,finance"
```

### 5.2 Step 2: Find the Task ID

```
[ ] a1b2c3d4 - !!!! Submit Q3 Report  
Include financial summary  
Due: 2023-11-30 | Tags: work, finance  
Created: 2023-11-15
```

### 5.3 Step 3: Update Progress

```
node cli.js status a1b2c3d4 in_progress  
node cli.js tag a1b2c3d4 urgent
```

### 5.4 Step 4: Mark as Done

```
node cli.js status a1b2c3d4 done
```

## 6 Common Mistakes

- Incorrect date format (must be YYYY-MM-DD)
- Invalid status names (use exact values)
- Forgetting task IDs (use list command)

## 7 Troubleshooting

Problem	Cause	Solution
Task not found	Incorrect ID	Run list and copy correct ID
Invalid date	Wrong date format	Use YYYY-MM-DD
Changes not saving	Permission issues	Check file permissions
App crashes	Corrupt JSON file	Delete tasks.json (data loss)

## 8 Frequently Asked Questions (FAQ)

### 8.1 Getting Started

**Q: How do I install TaskCLI?** A: Install Node.js, navigate to the project folder, and run `npm install`.

**Q: Where are tasks stored?** A: Tasks are stored locally in a `tasks.json` file.

**Q: Does it require internet access?** A: No. The application runs fully offline.

### 8.2 Features

**Q: How do priorities work?** A:

- Low (1): !
- Medium (2): !!
- High (3): !!!
- Urgent (4): !!!!

**Q: How do I mark a task as complete?** A: Use `node cli.js status <task_id> done`.

**Q: Can I add tags later?** A: Yes, using `node cli.js tag <task_id> <tag>`.

### 8.3 Advanced Usage

**Q: Can I update multiple fields at once?** A: No. Each property must be updated with a separate command.

**Q: How are task IDs generated?** A: IDs are generated using UUID v4. The CLI displays the first 8 characters.