

TaskMate

Kanban Project Management System

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Programming 3 - Final Project

Project Overview & Features







| What is TaskMate?

TaskMate is a lightweight, console-based project management application designed for programmers and teams to organize tasks efficiently using a Kanban-style board system.

| Problem It Solves:

- ▶ Helps track project progress visually
- ▶ Manages time spent on tasks
- ▶ Organizes work into clear workflow stages
- ▶ Provides insights through reporting

| Key Features:

<div> Kanban Board Visualization See tasks in three columns</div>	<div> Built-in Time Tracking Start, pause, and stop timers</div>
<div> MySQL Database Storage Reliable data persistence</div>	<div> JSON Import/Export Easy backup and migration</div>
<div> Advanced Search & Filter Find tasks by multiple criteria</div>	<div> Comprehensive Reporting Daily/weekly summaries</div>

Core Operations

1 Task Management

- ✓ Create tasks with title, description, and priority
- ✓ Edit task details anytime
- ✓ Move tasks between status columns (To-Do ↔ In-Progress ↔ Done)
- ✓ Delete tasks when no longer needed
- ✓ Simple sequential IDs (T1, T2, T3...) for easy reference

2 Time Tracking

- ✓ Start timer when beginning work on a task
- ✓ Pause timer without losing progress
- ✓ Stop timer to log time spent
- ✓ Automatic time calculation and accumulation
- ✓ Only one timer can run at a time

3 Task Organization & Search

- ✓ Assign tasks to team members
- ✓ Add multiple tags for categorization
- ✓ Set priority levels (low, medium, high)
- ✓ Search tasks by title or description keywords
- ✓ Filter by priority, tag, or assigned user

Data Management & User Experience

4 Reporting & Analytics

- ✓ Daily time summary reports
- ✓ Weekly time summary reports
- ✓ Overall statistics and breakdowns
- ✓ Time spent by status, priority, and user

5 Data Management

- ✓ Real-time MySQL database persistence
- ✓ Export all tasks to JSON for backup
- ✓ Import tasks from JSON file
- ✓ Automatic database table creation

★ User Experience Highlights

- ✓ Intuitive console-based interface
- ✓ Immediate data persistence - no manual save needed
- ✓ Clear visual Kanban board display
- ✓ Easy-to-use menu system with 16 options
- ✓ Comprehensive error handling and validation
- ✓ Simple task ID system for quick reference