

# Study Tracker

A modern, feature-rich productivity dashboard built with pure HTML, CSS, and JavaScript. Perfect for tracking tasks, managing deadlines, and boosting productivity with built-in analytics and Pomodoro timer.



Figure 1: Version









Figure 2: HTML5







Figure 3: CSS3

## ✨ Features

### Task Management

-  **Create tasks** with title, description, deadline, category, and priority
-  **Status tracking:** Pending, In Progress, Completed, Skipped
-  **Edit tasks** inline with modal interface
-  **Delete tasks** with confirmation
-  **Search and filter** by status, category, or keyword
-  **Sort tasks** by date, priority, or alphabetically

### Analytics & Visualization

-  **Task distribution chart** (Doughnut) - see breakdown by category
-  **Weekly progress chart** (Bar) - track completion over time
-  **Activity heatmap** (GitHub-style) - visualize daily productivity
-  **Completion statistics** - success rate and task counts

### Productivity Tools





-  **Pomodoro Timer** - 25/5/15 minute intervals with visual progress
-  **Dark Mode** - toggle between light and dark themes
-  **Keyboard shortcuts** for quick actions
-  **Confetti animation** on task completion



Figure 4: JavaScript

## Data Management

- **LocalStorage persistence** - data survives page reloads
- **Export data** to JSON backup file
- **Import data** from JSON backup
- **Mobile responsive** - works on all devices

## Quick Start

1. **Clone or download** this repository
2. **Open** index.html in any modern browser
3. **Start tracking** your tasks!

No build process, no dependencies (except Chart.js CDN), no server required.

## Project Structure

```
study-tracker/  
  index.html # Main HTML file  
  css/  
    style.css # Main styles with CSS variables  
    components.css # UI components & animations  
    responsive.css # Mobile responsiveness  
  js/  
    app.js # Application entry point  
    utils.js # Helper functions  
    storage.js # LocalStorage management  
    taskManager.js # Task CRUD operations  
    charts.js # Chart.js integration  
    timer.js # Pomodoro timer  
    ui.js # DOM manipulation  
  assets/  
    icons/ # SVG icons (optional)  
  README.md
```

## Keyboard Shortcuts

| Shortcut     | Action               |
|--------------|----------------------|
| Ctrl/Cmd + N | Focus new task input |
| Ctrl/Cmd + F | Focus search box     |
| Ctrl/Cmd + D | Toggle dark mode     |
| Escape       | Close modal          |

## 🎨 Design System

### Colors

- **Primary:** Indigo (#6366f1)
- **Success:** Emerald (#10b981)
- **Warning:** Amber (#f59e0b)
- **Danger:** Red (#ef4444)

### Typography

- **Font:** Inter (Google Fonts)
- **Scale:** 12px to 32px

### CSS Architecture

- **CSS Variables** for theming
- **Mobile-first** responsive design
- **BEM-inspired** naming convention
- **Smooth animations** and transitions

## 🔧 Technical Highlights

### Clean Architecture

```
// Modular design with separation of concerns
TaskManager // Business logic
UI // Presentation layer
Storage // Data persistence
Charts // Visualization
Timer // Productivity tool
Utils // Helper functions
```

### Modern JavaScript Features

- ES6+ syntax (arrow functions, destructuring, spread)
- Async/await for file operations
- Event delegation for performance
- Debounced search input
- Intersection Observer ready

### Accessibility

- Semantic HTML5 elements
- ARIA labels for screen readers
- Keyboard navigation support

- Focus visible indicators
- Color contrast compliance

## Data Schema

```
{
  id: "string", // Unique identifier
  title: "string", // Task name
  description: "string", // Task details
  category: "study|work|personal|health",
  priority: "low|medium|high",
  deadline: "YYYY-MM-DD",
  status: "pending|in-progress|completed|skipped",
  createdAt: "ISO date",
  completedAt: "ISO date|null"
}
```

## 🌟 Why This Project?

This project demonstrates:

1. **Frontend Architecture** - Modular, maintainable code structure
2. **State Management** - Client-side data persistence
3. **Data Visualization** - Interactive charts and graphs
4. **UX Design** - Intuitive interface with feedback
5. **Performance** - Optimized rendering and event handling
6. **Accessibility** - Inclusive design principles

Perfect for CS portfolio - shows understanding of:

- DOM manipulation
- Event handling
- Data structures
- Algorithmic thinking
- UI/UX design
- Code organization

## 🧠 Future Enhancements

- ☐ Drag & drop between status columns (Kanban board)
- ☐ Recurring tasks
- ☐ Task tags/labels
- ☐ Time tracking per task
- ☐ Goal setting and milestones
- ☐ Cloud sync (Firebase)

- ☐ Service Worker for offline support
- ☐ PWA install support

## **License**

MIT License - feel free to use for your own portfolio!

## **Credits**

- Chart.js for beautiful charts
- Inter Font by Google Fonts
- Icons via Unicode emoji

**Built with ❤️ for CS Portfolio**