**Project Status Tracker - Requirements & Design Specification**

**1. Executive Summary**

A lightweight web application for tracking weekly project status updates across multiple software delivery projects. The system enables Project Delivery Managers to quickly submit "All is Well" status updates in a feed-like interface, allowing the Delivery Practice Head to monitor all projects at a glance.

**2. User Personas**

**Primary Persona: Project Delivery Manager (PDM)**

1. **Name**: Sarah Chen
2. **Role**: Project Delivery Manager
3. **Experience**: 5-7 years in software delivery
4. **Tech Savviness**: Moderate
5. **Goals**:
6. Submit weekly status quickly (under 3 minutes)
7. View history of past submissions for reference
8. Copy/edit previous week's content to save time
9. **Pain Points**:
10. Busy schedule with multiple meetings
11. Dislikes complex forms and multiple screens
12. Needs mobile-friendly access for on-the-go updates
13. **Frequency of Use**: Weekly (every Friday EOD or Monday morning)

**Secondary Persona: Delivery Practice Head (You)**

1. **Name**: Alex Kumar
2. **Role**: Head of Delivery Practice
3. **Responsibilities**: 10-15 active projects
4. **Goals**:
5. Quick overview of all project health
6. Identify risks and blockers immediately
7. Track trends across projects over time
8. Export/share reports with leadership
9. **Pain Points**:
10. Information scattered across emails and spreadsheets
11. Difficult to spot patterns or recurring issues
12. Needs timely updates to be proactive
13. **Frequency of Use**: Multiple times weekly, especially Monday mornings

**3. Functional Requirements**

**3.1 Core Features**

**Project Master Data Management**

1. Admin can add/edit/archive projects
2. Each project has: Name, Client, Start Date, Status (Active/On Hold/Completed)
3. Only active projects appear in weekly submission dropdown

**Weekly Status Submission**

1. PDM selects project from dropdown (master list)
2. System auto-fills current week ending date (Friday)
3. PDM can override date if needed
4. Form fields:
5. **Overall Status**: Dropdown (Green/Amber/Red)
6. **All is Well**: Rich text area (main update section, 500-1000 chars)
7. **Risks**: Text area (optional, 300 chars)
8. **Opportunities**: Text area (optional, 300 chars)
9. **Value Projects**: Text area for GenAI and other value initiatives (optional, 300 chars)
10. **Action Items**: Text area (optional, 300 chars)
11. "Copy from last week" button to pre-fill with previous submission
12. Auto-save draft every 30 seconds
13. Submit button with confirmation

**Dashboard for Practice Head**

1. **Summary View**: Card-based layout showing latest status for all projects
2. Color-coded by status (Green/Amber/Red)
3. Project name, client, last update date
4. Quick preview of "All is Well" text (first 100 chars)
5. Visual indicators for risks, opportunities, action items
6. **Filters**: By status, by PDM, by week, by client
7. **Search**: Full-text search across all fields
8. **Sort**: By status, project name, last updated, client

**Project Detail View**

1. Full history of all weekly submissions for a project
2. Timeline view showing status changes
3. Ability to add comments/notes on any submission
4. Export single project history to PDF/Excel

**Reporting & Analytics**

1. Weekly rollup report (all projects)
2. Trend analysis: Status changes over time
3. Risk register: All risks across projects
4. Opportunity pipeline: All opportunities identified
5. Export to PDF, Excel, or shareable link

**3.2 User Management**

1. Role-based access:
2. **Admin**: Full access, manage projects and users
3. **Practice Head**: View all, comment, export
4. **PDM**: Submit for assigned projects only, view own submissions
5. Simple email/password authentication
6. Optional: SSO integration for enterprise

**3.3 Notifications**

1. Email reminder to PDMs on Thursday if status not submitted
2. Email digest to Practice Head on Monday morning with summary
3. In-app notifications for comments on submissions

**4. Non-Functional Requirements**

**4.1 Usability**

1. Mobile-responsive design (at least for submission form)
2. Form completion time: Under 3 minutes
3. Dashboard load time: Under 2 seconds
4. Accessibility: WCAG 2.1 AA compliance

**4.2 Performance**

1. Support 50+ concurrent users
2. Handle 100+ projects with 52 weeks of history each
3. Database queries under 500ms

**4.3 Data Management**

1. Weekly automated backup
2. Data retention: 3 years minimum
3. Export capability for archival

**5. Data Model**

**Projects Table**

{

id: UUID,

name: String (unique),

client: String,

startDate: Date,

status: Enum ['Active', 'On Hold', 'Completed'],

assignedPDM: Reference to User,

createdAt: Timestamp,

updatedAt: Timestamp

}

**Weekly Status Table**

{

id: UUID,

projectId: Reference to Projects,

weekEndingDate: Date (Friday),

overallStatus: Enum ['Green', 'Amber', 'Red'],

allIsWell: Text (rich text),

risks: Text (optional),

opportunities: Text (optional),

valueProjects: Text (optional),

actionItems: Text (optional),

submittedBy: Reference to User,

submittedAt: Timestamp,

isDraft: Boolean,

createdAt: Timestamp,

updatedAt: Timestamp

}

**Users Table**

{

id: UUID,

email: String (unique),

name: String,

role: Enum ['Admin', 'Practice Head', 'PDM'],

isActive: Boolean,

createdAt: Timestamp,

lastLogin: Timestamp

}

**Comments Table (Optional)**

{

id: UUID,

statusId: Reference to WeeklyStatus,

userId: Reference to User,

comment: Text,

createdAt: Timestamp

}

**6. UI/UX Design**

**6.1 Navigation Structure**

Main Navigation (Top Bar)

├── Dashboard (Practice Head)

├── My Projects (PDM)

├── Submit Status (PDM)

├── Reports (Practice Head)

├── Manage Projects (Admin)

└── User Profile

**6.2 Wireframes**

**A. PDM - Status Submission Screen**

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│ Project Status Tracker [User] [Logout] │

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│ │

│ Submit Weekly Status │

│ │

│ ┌────────────────────────────────────────────────┐ │

│ │ Select Project \* │ │

│ │ [Dropdown: Project Alpha ▼] │ │

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│ │

│ ┌────────────────────────────────────────────────┐ │

│ │ Week Ending Date \* │ │

│ │ [Date Picker: Jan 24, 2025] │ │

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│ │

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│ │ Overall Status \* │ │

│ │ ○ Green ○ Amber ○ Red │ │

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│ │

│ [📋 Copy from last week] │

│ │

│ ┌────────────────────────────────────────────────┐ │

│ │ All is Well \* │ │

│ │ ┌────────────────────────────────────────────┐ │ │

│ │ │ [Rich text area - 500-1000 chars] │ │ │

│ │ │ │ │ │

│ │ │ │ │ │

│ │ │ │ │ │

│ │ └────────────────────────────────────────────┘ │ │

│ └────────────────────────────────────────────────┘ │

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│ │ Risks (Optional) │ │

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│ │

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│ │ Opportunities (Optional) │ │

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│ │ Value Projects (incl. GenAI) (Optional) │ │

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│ │ Action Items (Optional) │ │

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│ │ │ │ │ │

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│ │

│ [Save Draft] [Submit] ──────────────────────── │

│ │

│ Auto-saved 2 minutes ago │

│ │

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**B. Practice Head - Dashboard**

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│ Project Status Tracker [🔍 Search] [User] [⚙] │

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│ │

│ Project Dashboard [Week: Jan 18-24, 2025]│

│ │

│ Filters: [All Status ▼] [All PDMs ▼] [Export Report]│

│ │

│ Summary: 15 Projects | 12 Green | 2 Amber | 1 Red │

│ │

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│ │ 🟢 Project Alpha│ │ 🟢 Project Beta │ │ 🟡 Proj. │ │

│ │ Client: Acme │ │ Client: TechCo │ │ Client: │ │

│ │ PDM: Sarah │ │ PDM: John │ │ PDM: Li │ │

│ │ Updated: Jan 24 │ │ Updated: Jan 24 │ │ Updated: │ │

│ │ │ │ │ │ Jan 23 │ │

│ │ "Sprint 5 │ │ "Migration │ │ "Minor │ │

│ │ completed, all │ │ completed ahead │ │ delay in │ │

│ │ features..." │ │ of schedule..." │ │ UAT..." │ │

│ │ │ │ │ │ │ │

│ │ ⚠️ 1 Risk │ │ 💡 1 Oppty │ │ ⚠️ 2 Rsk │ │

│ │ 📌 2 Actions │ │ 📌 1 Action │ │ 📌 3 Act │ │

│ │ │ │ │ │ │ │

│ │ [View Details] │ │ [View Details] │ │ [View] │ │

│ └─────────────────┘ └─────────────────┘ └──────────┘ │

│ │

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│ │ 🔴 Project Gamma│ │ 🟢 Project Delta│ │ ... │ │

│ │ ... (similar) │ │ ... (similar) │ │ │ │

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│ │

│ [Load More Projects...] │

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**C. Project Detail View (Timeline)**

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│ ← Back to Dashboard [Export] │

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│ │

│ Project Alpha - Status History │

│ Client: Acme Corp | PDM: Sarah Chen │

│ │

│ ┌───────────────────────────────────────────────────┐ │

│ │ Week Ending: Jan 24, 2025 Status: 🟢 Green│ │

│ │ Submitted: Jan 24, 10:45 AM │ │

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│ │ All is Well: │ │

│ │ Sprint 5 completed successfully with all planned │ │

│ │ features delivered. Team velocity stable at 45 │ │

│ │ points. Client feedback positive. UAT scheduled │ │

│ │ for next week. │ │

│ │ │ │

│ │ Risks: None │ │

│ │ │ │

│ │ Opportunities: Client interested in Phase 2 │ │

│ │ │ │

│ │ Value Projects: Implemented AI-powered search │ │

│ │ │ │

│ │ Action Items: │ │

│ │ - Finalize UAT scenarios by Jan 26 │ │

│ │ - Schedule Phase 2 kickoff discussion │ │

│ │ │ │

│ │ [💬 Add Comment] │ │

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│ │ Week Ending: Jan 17, 2025 Status: 🟡 Amber│ │

│ │ Submitted: Jan 17, 4:30 PM │ │

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│ │ All is Well: │ │

│ │ Sprint 4 in progress. Minor delays due to third- │ │

│ │ party API integration issues... │ │

│ │ [Expand ▼] │ │

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│ │

│ [Show 10 more weeks...] │

│ │

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**6.3 Color Scheme & Visual Design**

**Status Colors:**

1. Green: #10B981 (Success, on-track)
2. Amber: #F59E0B (Warning, attention needed)
3. Red: #EF4444 (Critical, immediate action)

**UI Theme:**

1. Primary: #3B82F6 (Blue)
2. Secondary: #6B7280 (Gray)
3. Background: #F9FAFB (Light gray)
4. Text: #111827 (Dark gray)
5. Cards: #FFFFFF with subtle shadow

**Icons:**

1. ⚠️ Warning/Risk
2. 💡 Opportunity
3. 📌 Action Item
4. 💼 Value Project
5. 🔍 Search
6. 📊 Reports
7. ⚙️ Settings

**7. User Flows**

**7.1 PDM Weekly Submission Flow**

1. PDM logs in (Friday afternoon or Monday morning)

2. Navigates to "Submit Status"

3. Selects project from dropdown

4. System auto-fills week ending date

5. Selects overall status (Green/Amber/Red)

6. Option: Clicks "Copy from last week"

- System pre-fills all fields with previous week's data

7. Fills/edits "All is Well" section (primary focus)

8. Fills optional fields as needed

9. System auto-saves every 30 seconds

10. Clicks "Submit"

11. Confirmation message appears

12. Can submit for another project or view submission history

**7.2 Practice Head Monitoring Flow**

1. Practice Head logs in (Monday morning)

2. Lands on Dashboard showing all projects

3. Quick scan of color-coded status cards

4. Identifies Red/Amber projects for attention

5. Clicks on project card for details

6. Reviews full history and trends

7. Adds comments if needed

8. Returns to dashboard or generates report

9. Exports weekly rollup for leadership

**8. Technical Architecture Recommendations**

**8.1 Technology Stack**

**Frontend:**

1. React 18+ with TypeScript
2. UI Library: Tailwind CSS with shadcn/ui components
3. State Management: React Query + Zustand
4. Form Handling: React Hook Form
5. Rich Text Editor: Tiptap or Quill
6. Charts/Visualizations: Recharts

**Backend:**

1. **Option 1 (Recommended)**: Node.js + Express + TypeScript
2. Faster development for JavaScript developers
3. Better ecosystem for real-time features
4. Easier integration with React frontend
5. **Option 2**: Python + FastAPI
6. Better for data analytics and reporting
7. Strong typing with Pydantic
8. Excellent documentation

**Database:**

1. **Recommended**: PostgreSQL
2. Better for structured data and relationships
3. Strong full-text search capabilities
4. JSON support for flexible fields
5. Better for analytics queries
6. **Alternative**: MongoDB
7. More flexible schema
8. Faster for document-style operations
9. May need additional tools for complex queries

**Additional Services:**

1. Authentication: JWT or NextAuth.js
2. Email: SendGrid or AWS SES
3. File Storage: AWS S3 for exports
4. Deployment: Vercel (Frontend) + Railway/Render (Backend)

**8.2 API Endpoints (Sample)**

Authentication

POST /api/auth/login

POST /api/auth/logout

GET /api/auth/me

Projects

GET /api/projects

POST /api/projects

GET /api/projects/:id

PUT /api/projects/:id

DELETE /api/projects/:id

Weekly Status

GET /api/status (with filters)

POST /api/status

GET /api/status/:id

PUT /api/status/:id

GET /api/status/project/:projectId

GET /api/status/latest/:projectId

Reports

GET /api/reports/weekly-rollup

GET /api/reports/trends

GET /api/reports/risks

POST /api/reports/export

Users

GET /api/users

POST /api/users

PUT /api/users/:id

**9. Implementation Phases**

**Phase 1: MVP (2-3 weeks)**

1. User authentication
2. Project master data management
3. Basic status submission form
4. Simple dashboard with card view
5. No analytics or advanced reporting

**Phase 2: Enhanced Features (1-2 weeks)**

1. "Copy from last week" functionality
2. Auto-save drafts
3. Email notifications
4. Project detail timeline view
5. Basic filtering and search

**Phase 3: Reporting & Analytics (1-2 weeks)**

1. Weekly rollup reports
2. Trend analysis
3. Export functionality (PDF/Excel)
4. Comments system
5. Mobile optimization

**Phase 4: Advanced Features (Optional)**

1. SSO integration
2. Advanced analytics dashboard
3. Slack/Teams integration
4. Custom fields per project type
5. AI-powered insights from status text

**10. Success Metrics**

**Adoption Metrics:**

1. 90%+ PDMs submitting status weekly by Week 4
2. Average submission time < 3 minutes
3. 80%+ using "copy from last week" feature

**Engagement Metrics:**

1. Practice Head logging in 3+ times per week
2. Average of 2+ project detail views per session
3. Monthly report exports increasing

**Quality Metrics:**

1. Reduction in ad-hoc status requests via email/Slack
2. Faster identification of at-risk projects
3. Improved visibility into opportunities and value projects

**11. Future Enhancements**

1. AI-powered sentiment analysis on status updates
2. Automated risk scoring and prediction
3. Integration with project management tools (Jira, Azure DevOps)
4. Client portal for read-only access
5. Mobile native apps (iOS/Android)
6. Customizable dashboards and widgets
7. Automated status summaries using LLMs
8. Team capacity and resource planning module

**Appendix: Example Data**

**Sample "All is Well" Entries**

**Green Status:**

"Sprint 12 completed with all stories delivered. Client demo well-received with positive feedback on the new dashboard features. Team morale is high. Performance testing completed successfully. Next sprint planning done. On track for Phase 1 go-live on Feb 15."

**Amber Status:**

"Sprint progress slower than expected due to complexity in third-party API integration. Team working extra hours to catch up. Client informed and supportive. Potential 1-week delay in delivery, mitigation plan in place. Need architecture review next week."

**Red Status:**

"Critical blocker: Production environment access still pending after 2 weeks of escalations. Impacting dev and testing. Client growing concerned. Emergency meeting scheduled with infrastructure team. May need executive intervention. Risk of contractual penalty if not resolved by week end."

*This document should be used as input for Claude Code or your development team to build the application.*