

Scope of Improvement

This section outlines the current system limitations and potential future enhancements to improve scalability, usability, and enterprise readiness.

1 Member Assignment

Current System	Future Improvement
A member can be assigned to only one project at a time	Members can be assigned to multiple projects simultaneously
Status changes to “assigned” globally	Project-wise assignment tracking
Limited resource utilization	Better workload distribution

Enhancement Plan

- Introduce **projectMember** mapping collection
 - Track role & workload per project
 - Enable cross-project collaboration
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2 Authentication System

Current System	Future Improvement
Manual email/password login	Social authentication integration
No SSO support	Google / Microsoft / GitHub login
Higher login friction	One-click secure access

Enhancement Plan

- Integrate OAuth 2.0
 - Use Google Identity / Firebase Auth
 - Add multi-factor authentication (MFA)
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3 Invitation System

Current System	Future Improvement
Basic project invitation	Email-based invite links
In-app acceptance only	One-click join via email
Limited expiry handling	Auto reminders before expiry

4 Role & Permission Management

Current System	Future Improvement
Basic role handling	Granular RBAC system
Fixed roles	Custom project roles
No permission matrix	Module-level access control

5 Task Management

Current System	Future Improvement
Basic Kanban tracking	Gantt charts & timelines
No task dependencies	Linked / blocked tasks
Manual updates	Automation rules

6 Notifications

Current System	Future Improvement
Limited in-app updates	Real-time notifications
No reminders	Email & push alerts
No escalation	Deadline escalation system

7 Reporting & Analytics

Current System	Future Improvement
No analytics dashboard	Productivity insights
Manual tracking	Automated reports
No performance metrics	Member workload analytics

8 File & Document Management

Current System	Future Improvement
No file attachments	Task file uploads
No document sharing	Versioned documents
Limited collaboration	Integrated document workspace

9 Caching & Performance

Current System	Future Improvement
Basic query handling	Redis caching layer
No response caching	API cache optimization
Higher DB load	Distributed caching

10 Background Automation

Current System	Future Improvement
Basic cron jobs	Distributed job queues
Limited automation	Workflow automation engine
Manual monitoring	AI-based predictions

UI/UX Enhancements

Current System	Future Improvement
Desktop-focused UI	Fully responsive design
Limited accessibility	Mobile app support
Basic dashboards	Customizable widgets

Scalability Vision

Future enterprise-ready upgrades:

- Microservices architecture
 - Kubernetes deployment
 - Multi-tenant workspaces
 - API rate limiting
 - Audit logs & compliance
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Business Impact of Improvements

- Better team collaboration
- Increased productivity tracking
- Enterprise adoption readiness
- Secure authentication ecosystem
- Scalable infrastructure support