

■ Problem Statement

Group projects — whether in college, hackathons, or workplaces — often suffer from uneven participation where one or two people carry the entire workload while others contribute minimally or not at all. Existing tools like GitHub, Google Docs, and Trello track progress but do not enforce accountability, predict workload, or provide transparent contribution insights automatically.

There is no unified system that:

- Understands the project scope
- Breaks it down intelligently
- Estimates work and time per task
- Tracks live contribution across platforms
- Notifies inactive members
- Generates post-project analytics and reports

As a result:

- Contributors burn out
- Slackers escape responsibility
- Evaluation becomes biased or blind
- Collaboration becomes toxic instead of productive

■ Proposed Solution – Project Guardian

An AI-powered contribution accountability system that:

- Analyzes project description
- Auto-generates tasks & estimated hours
- Creates GitHub repo + issues automatically
- Tracks contribution across GitHub, Google Docs, Sheets, etc.
- Detects inactivity and sends automated notifications / warnings
- Generates a final project report showing contribution breakdown

Everything is software-only and designed to deploy fast.

■ Key Features

1. AI Task Breakdown & Estimation

- User enters project summary
- AI generates task list, estimated hours, deliverables & priority
- Assigns tasks evenly or intelligently

2. Automatic Repository Setup

- Generates GitHub repo
- Adds issues/cards based on task breakdown
- Creates README, labels, and workflow templates

3. Contribution Tracking Layer

Tracks live activity using APIs:

- Git commits / PRs / reviews
- Google Docs edit history
- Google Sheets changes
- Issue updates & board movements

4. Accountability Engine

If someone isn't contributing:

- Sends reminders, warnings, or roast messages
- Customizable tone: "Professional" or "Petty Mode"

5. Final Auto-Generated Report

System generates:

- Contribution percentage
- Estimated hours worked
- Commit count
- Task completion log
- Highlights slackers vs contributors
- Exportable as PDF / CSV / link

■ Tech Stack (Suggested)

Frontend: React / Next.js / Tailwind

Backend: Node.js / Express / Firebase / Supabase

AI: GPT or similar LLM

APIs: GitHub, Google Drive/Docs/Sheets, Discord/WhatsApp

Auth: Google OAuth / GitHub OAuth

Deployment: Vercel / Railway / Firebase Hosting

■ Expected Impact

- ✓ Fair workload distribution
- ✓ No more silent freeloaders
- ✓ Transparent evaluation
- ✓ Less stress & conflict
- ✓ Real-world workflow simulation