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<https://github.com/4330-Cinco-Locos/Clarity>

## **Project Vision**

**For** software engineers and their managers

**Who** need to keep in contact with one another and keep track of project progress

**Clarity** is a source code management webapp

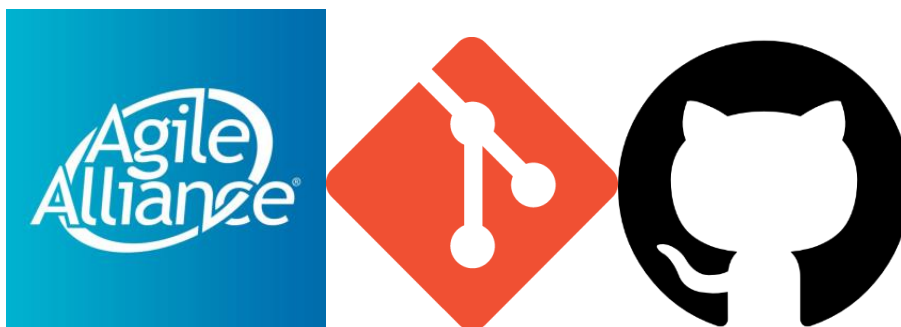
**That** allows for communication between users and tracking of feature completion progress and streamlines the development management process

**Unlike** Github & Gitlab

**Our Product** combines both development management with swift communication between users in a semi-professional environment

## **Market Analysis**

The Source Code Management market is vastly controlled by tech giant, GitHub. Self reportedly, github has approximately 100 million active users; a hike from the reported 28 million during Microsoft's acquisition of the company in 2018<sup>1</sup>. Github's competitors also include webapps such as planview, gitlab, and git itself as promoted by the Agile Alliance. Source code management software often focuses on codebase development or agile management but rarely combines the two. Clarity is looking to change this; codebase management incentivization looks to encourage management of code from the level of software developer to the high reaches of project managers or c suite executives. Clarity intends to be modular with projects being readily expandable to accommodate teams from small-team development to company-wide projects. Commercialization includes making modular options that are purchasable packages for a monthly fee per project.



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<sup>1</sup> <https://techcrunch.com/2023/01/26/github-says-it-now-has-100m-active-users/>

## **Scenarios**

### **1. Satisfying UI**

Google, following the trend of minimalism, wants to update their UI. Jimothy, a junior software dev working at the company, will be involved in the process. It will involve many tasks done over a long period of time. As a result of this, he needs to be able to track his progress and his team's progress while maintaining communication with them outside of a formal meeting that uses up valuable time. Due to the nature of the project, features can be everchanging and progress may not be readily apparent.

To remedy this, Jimothy begins looking into tools to help keep himself and his team in contact, and to help track their progress. Jimothy then finds Clarity and suggests using it to his coworkers, who agree. Using the platform Jimothy is able to easily view his progress, and how much work his team has left to complete. He is also able to quickly ask and answer questions about features without having to worry about the clutter of his work email.

### **2. Clarity of Development:**

Johnathan is a senior software engineer, leading 12 junior developers. Recently, a project has come down from upper management to create a new website for their company. The website will need many different features which will each require significant development time. In order to meet the deadlines for these features, he has broken his junior devs into 3 groups where they each work on a core feature of the software. Each group has many smaller tasks to do in order to implement each of their core features, which is causing some confusion about what to work on and how much has been completed.

To help fix this, Johnathan has decided to look into services for managing his team's development cycle. Johnathan finds the Clarity webapp and sets up a project page for each of the groups. Now, when one of his junior developers has questions about project progress they are able to readily view their group's progress, and ask questions to other members of their group without unnecessarily cluttering their and Johnathan's emails. After they begin using the webapp Johnathan observes that the groups begin working better among themselves and there is less confusion among the developers about the progress level of the project.

## **User Stories**

1. As a senior software engineer, I want to assign tasks to jr. Engineers so they are able to identify tasks assigned to them.
2. As a product manager I want to view timetables of products in development so that I can prioritize tasks and ensure products are following their set deadlines.
3. As a code manager I want to manage contributions and see the workload assigned to employees so that I ensure an even distribution of tasks.
4. As an agile developer, I want to add comments and questions to sprints so that other team members can follow my progress and provide feedback.
5. As a software developer I want to plan sprints prior to them happening so that sprints are organized prior to when developers begin development.

## **Functional Requirements**

1. The platform must display all pending, in-progress, and completed tasks
2. Lead Developers must be able to create new tasks and assign them to other users
3. Developers must be able to update task status and add comments
4. Developers must be able to filter tasks based on assigned developers
5. The system should generate a report of weekly tasks that have been completed including all comments

## **Non-Functional Requirements**

1. The platform must be capable of use offline, loading stored data but not allowed to edit
2. The Platform must be capable of accessibility features such as dark mode, screen reader functionality, and differing device support (phone, web, desktop)
3. Add non-repudiation and logging to ensure product security
4. Ensure product can support up to 25 simultaneous users on a given project
5. The platform must ensure data privacy through secure logins and encryption of personal data