

# TASK UP

## REQUIREMENTS REPORT.

### PREFACE

Development teams and industries face a big challenge: Managing projects and teams. As such they employ solutions like white boards and paper tickets to help ease this struggle.

In such system, tasks are written on paper and placed in a container. Workers come and take a paper containing a task and work on it. This approach help them ensure that no two developers workers end up doing the same thing. In effect it has been observed that the productivity of workers increase greatly with this approach.

Unfortunately these suffer from some problems as well. Some task cards can get torn and misplaced even before the job gets done. This way the developers might lose most if not all information and requirements about the task to be performed. Another problem is that some tasks never get picked up and are left unattended to because some developers / workers find it hard to do and pass them by.

There is also a catch for the company. They find it difficult to find who worked on what task, how long it took for the developer to complete the task, and to do whatever computation they need such data for. Some such computation might be finding the appropriate salary for a specific developer and the work efficiency of the developer.

### IDEA INCEPTION

A member of the group, once recorded struggles in one his freelance projects. He established that in a team of two, they had issues of all two developers working on the same feature thus resulting in collisions. He also recorded that it was always so difficult to tell when a feature is done. And some feature requests got lost in their WhatsApp chats and over calls. Other members reported having had the same issues. After a consensus it was decided that the group will build a tool that will help in managing such projects.

### DEFINITIONS

#### Project:

A project is an umbrella that describes a real life project to be built. It has tasks, a manager, and contributors

**Task:**

A task is a simple assignment that needs to be done on the project. The task has an assigned worker (someone who implements it), Its status and progress report

**Project Manager:**

A person becomes a project manager by creating a project. His rights include adding tasks, Assigning tasks to another person associated with the project and accessing statistics about a task.

**Contributor:**

A Person becomes a contributor to a project only when they are added up by the project manager. They then accept the request to be added to the project. A contributor can assign an unassigned task to themselves and can update the progress of a task.

**INTENDED FEATURES**

1. Creation of projects by project managers
2. Addition of tasks by project managers and contributors
3. A task is ordered by severity to avoid confusion with task necessity.
4. Chatting feature attached to various tasks for structured and ease of communication
5. Report system that summarizes activities of contributors of a project and the project in total.
6. Alert system for tasks and projects to tell contributors and managers when deadlines are approaching

**USE CASE (PROJECT MANAGER)**

A person registers on the system as a user. He/she creates a project thus becoming its Project Manager. He/she then adds contributors to the project. He creates tasks and assigns the tasks to different members. He adds deadlines to the tasks.

He receives feedback about the progress made by the assigned contributors and sees statistics of how well the contributors do on their tasks. Such information include knowing how many tasks they have handled and whether they were able to keep up with scheduled deadlines.

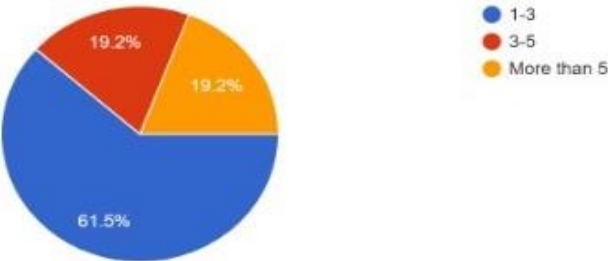
**USE CASE (CONTRIBUTOR)**

A person registers on the system as a user. When this users is added to a project by its Manager, he/she becomes a contributor. A contributor picks tasks that are not already assigned to anyone else or is assigned a task directly by the Manager. He/she updates the task on its progress and notifies when its done. The system notifies the contributor when the deadline for the task is getting near.

SURVEY INFORMATION

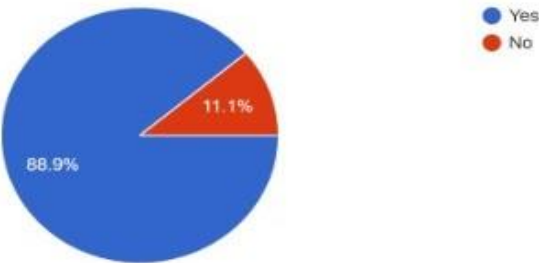
How many projects have you managed so far

26 responses



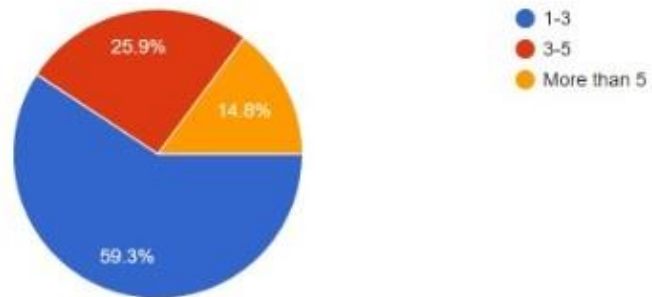
Did you face / encounter challenges?

27 responses



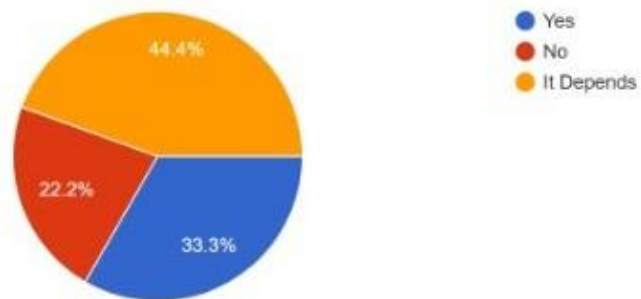
How many projects have you worked on so far?

27 responses



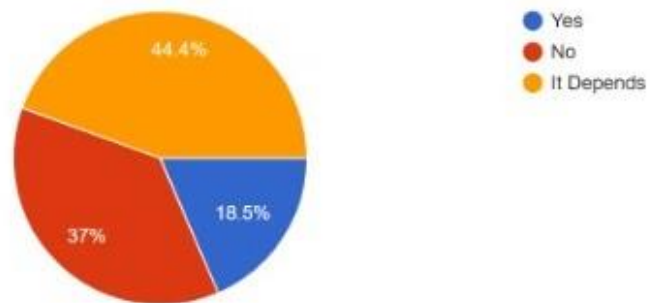
Are you able to track your progress whilst working on a project

27 responses



Do you always complete projects before deadline?

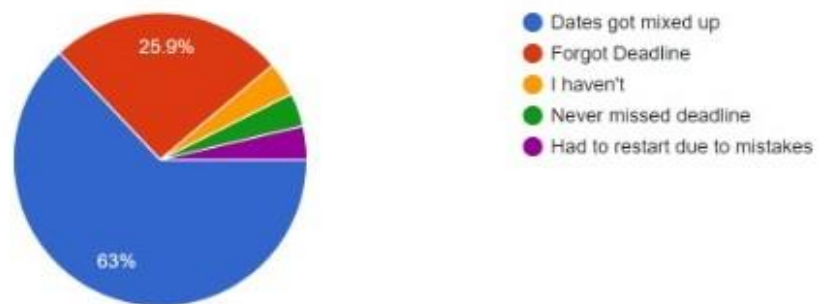
27 responses



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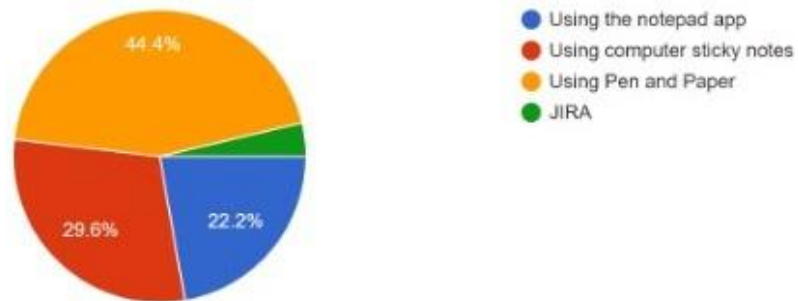
What made you miss a deadline?

27 responses



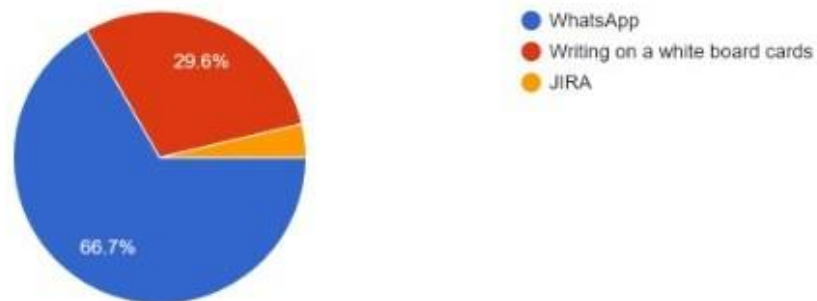
How do you track your progress and manage your deadlines?

27 responses



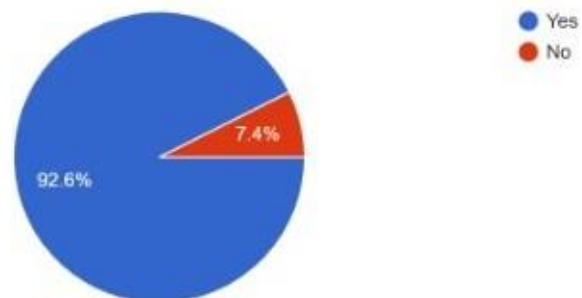
What management solutions do you use?

27 responses



Would you be interested in a software to help you keep track of your projects and manage your deadlines?

27 responses



According to the statistic from our google held survey as presented above, and similar results from in-person surveys and questioning, we find that most of the developers who answered our questions have lots of issues with how they manage their projects. Many resort to methods and software that are not intended to be used for the purpose of maintaining projects. These include Whatsapp, sticky notes, notepad and hand written documents.

These developers also report having had many issues with keeping up to the deadline. These primarily happens because they lose track of deadlines. Some developers also report having been misinformed on the severity of some tasks over others and end up working on the lesser required task.

In general, the majority expressed interest in a software management project to help ease their pain.

## **ARCHITECTURE**

The solution is intended to be a decoupled web app. This will have a backend implemented in REST architecture. Then a frontend will consume this data from the REST backend.

A Web application was chosen so clients can use the application without needing software installation and to be accessible to all people regardless of the platform they use(IOS, Android, Desktop, etc).

Flask, a python web framework was chosen for our backend implementation and Vuejs was chosen for our frontend implementation.