The World's Greatest TODO App

Team MJ'S

Moses Hughes	Jiacheng Cui	Shuoyuan Liu
mahughes@vt.edu	jiacheng20@vt.edu	shuoyuanl@vt.edu

Matthew Moore	Matt Juntima
mmoore00@vt.edu	njuntima@vt.edu

ABSTRACT

Traditional to-do apps and checklists often do not satisfy the needs of project managers or software developers. They often lack flexibility or customization, leading to an inefficient software development plan. The World's Greatest TODO App offers improved customization, task management, and organization to software developers or project managers.

By increasing the amount of customization and organization options, The World's Greatest TODO app offers a way to improve the software engineering process by offering more organization and accountability for software developers.

INTRODUCTION

Knowing the requirements is an important part of the software engineering process. According to *The CHAOS Report* by the Standish Group published in 1995, incomplete requirements and specifications was one of the top factors impairing projects. Conversely, some of the top reasons that helped project success was executive management support and clear requirements.

Since having a clear set of requirements is crucial to having a smoother software design cycle, The World's Greatest TODO App has several features that help improve the software development process. The app allows managers to assign different roles and groups, giving more organization for assigning tasks or showing the completion of tasks for a project. With this, teams are better able to collaborate with each other and other teams. The app also offers integration with other calendar apps, such as Apple iCloud calendar or Google Calendar, giving developers a visual timeline of when to complete tasks.

By allowing project managers to have an easier time organizing and assigning tasks to software developers with the TODO app, it helps set clear deadlines which in turn will help lead to more successful projects.

RELEVANT WORK

In a 2020 journal published by the International Research Journal of Modernization in Engineering Technology and Science, titled *A REVIEW OF DAILY PRODUCTIVITY GROWTH USING TODO MANAGER [1]*, by Suyash Kejriwal, Vaibhav Vishal , Aastha Gulati and Gaurav Gambhir, TODO lists can be improved by adding several key features: partial task completion, task efficiency, and a target completion indicator.

A partial indicator would allow users to be able to complete smaller tasks, making management more efficient.
A task efficiency visualization would allow users to see how efficient they are by seeing completed and pending tasks, keeping accountability.
A target completion indicator would allow users to set a goal for themselves, compared with daily task efficiency, keeping users motivated.

The journal provides many improvements to improve TODO lists to help improve people's efficiency in completing tasks, thus improving the software engineering process.

A 2016 Journal published in the Journal of Graduate Medical Education titled *Getting More Done: Strategies to Increase Scholarly Productivity [3]*, by Sarina Schrager and Elizabeth Sadowski, discusses how making TODO lists have a biological impact on increasing work productivity. This is known as the "Zeigarnik Effect"; writing down tasks reduces the need for the brain to remember those tasks which means it can focus more on completing those tasks.

SOFTWARE ENGINEERING PROCESS

The Agile engineering process will be utilized in the development of the World's Greatest TODO App. As an iterative process, it provides great flexibility for the team to respond to any issues that arise, user feedback, and development of new features following an initial deployment of the app.

To do this, the team will design and then implement relatively simple goals or features in small time increments. For example, the team will start by developing a basic personal TODO list. This will give a good baseline to how the final app will work. From there, we have a few options on where we could go. From our preliminary planning, we could develop a team based system with multiple interlinking lists, add timelines to tasks and integration with third party calendar applications, or some different feature that we haven't thought of but users desire.

REFERENCES

[1]"A REVIEW OF DAILY PRODUCTIVITY GROWTH USING TODO MANAGER," *IRJMETS*, vol. 2, no. 12, Dec. 2020.

[2] "The chaos report (1995) - California State University, Sacramento," Sacramento State, https://www.csus.edu/indiv/r/rengstorffj/obe152-spring02/articles/standishchaos.pdf (accessed Sep. 24, 2023).

[3] S. Schrager and E. Sadowski, "Getting More Done: Strategies to Increase Scholarly Productivity," *Journal of Graduate Medical Education*, vol. 8, no. 1, pp. 10–13, Feb. 2016.