

TODO Bot: Revolutionizing Developer Task Management

Matthew Padath¹, Pranav Poodari², Raghav Pajjur³, and Prat Chopra⁴

Virginia Tech, Blacksburg, VA, USA

Corresponding Author Email ID: mpadath@vt.edu, pranavp1551@vt.edu,
rpajjur@vt.edu, pratc@vt.edu

Abstract. In today’s evolving software development landscape, efficient task management remains a challenge. The TODO bot is our answer to this issue, integrating seamlessly into developers’ workflows and utilizing AI for real-time task management.

Keywords: Software Engineering, TODO Bot, Task Management, Software Engineering Process

1 Introduction

The life of a developer is inundated with a myriad of tasks. From addressing bugs to adding features, there’s always something that demands attention. Traditional task management tools, while helpful, can disrupt the natural workflow. Our motivation behind the TODO Bot stems from a need for a tool that understands developers’ immediate tasks and doesn’t need to break their coding momentum.

2 Related Work

While there are several task management platforms, such as JIRA, Trello, and Asana, they often focus on visual representation and boards rather than real-time task synchronization within a developer’s environment. A study by Smith and Jones (2022) shed light on how real-time integrated tools can significantly boost developer productivity. This synchronization allows for smoother understanding from one developer to another when attempting to write or update code.

3 Software Engineering Process

Software Engineering Process:

For the TODO Bot project, our team has chosen the Agile methodology, particularly Scrum, due to its adaptability and iterative approach:

- Sprint Planning: Define upcoming tasks.
- Daily Stand-ups: Discuss daily progress.

- Sprint Review: Evaluate sprint achievements.
- Sprint Retrospective: Reflect for process improvements.

Our decision stems from the understanding that software tool development benefits from constant feedback, ensuring our product continually aligns with developers' needs. This consistent feedback loop allows for continued improvements and updates to the developers' understanding of the problem and how to make the necessary changes to solve these problems.

References

1. Smith, J., and Jones, M. (2022). Developer Behavior and Productivity Tools. *Journal of Software Engineering*, 45(2), 123-134.