Noted Application Final Report

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In the fast-paced digital age, individuals and professionals are inundated with tasks, deadlines, and commitments, spanning both their personal and professional lives. The challenge is not only to keep track of these responsibilities but to prioritize, categorize, and ensure timely completion. Traditional methods like notepads or generic calendar apps are insufficient, and they often lack features specifically tailored for task management. This results in missed deadlines, decreased productivity, and increased stress.

We propose a dynamic To Do application designed to intuitively streamline task management. Our app will offer the ability to quickly jot down tasks, set reminders, categorize by priority and type, and integrate with other calendar platforms. The app will feature a user-friendly interface with customizable views, ranging from a daily breakdown to a monthly overview, ensuring tasks don't fall through the cracks. With this solution, users will regain control over their schedules, increase their efficiency, and decrease associated stresses, ultimately leading to a more balanced life.

ACM Reference Format:
Harris Naseh, Adalia Truong, Eugene Min, Claire Holmes, and Anthony Donberger. 2023. Noted Application Final Report. 1, 1 (December 2023), 7 pages. https://doi.org/10.1145/nnnnnnn.nnnnnnn

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1 INTRODUCTION

In any given day an individual could have dozens or more tasks to accomplish. Without proper organization, it can become easy to lose track and forget some important tasks. This can become especially relevant in an industry environment where a professional is given a multitude of tasks to accomplish without any way to organize. Software engineers especially need a way to differentiate short-term tasks (e.g., daily standups, quick bug fixes) and long term goals (e.g., an Epic in Agile, overall lifestyle changes). That's where our idea of a categorized To Do application comes into play. With the ability to prioritize certain tasks, individuals will be able to easily manage their time to ensure they accomplish their goals in a timely manner.

For most people, whether it be college students, working adults, or full time parents managing the various responsibilities within one's life is extremely difficult. As mentioned earlier, Noted provides an extremely simple method of helping a user improve their time management and stay up-to-date with their tasks. For software engineers this is extremely crucial as they are constantly tasked with keeping up with various deadlines, ensuring their work is of high quality, and balancing their lives outside of work. To do so, software engineers must have very good time management. However, Noted provides a very clear-cut way to handle managing all these tasks both related to their work and outside of work. A way Noted can be used by software engineers is using it to organize all the tasks each software engineer must do while working on a project. For example, if a team of software engineers were currently working on various sub-tasks and they decided to split up those sub-tasks amongst themselves then Noted would provide a clear way to organize each of their tasks. Each software engineer could use Noted to record the tasks they were assigned for the project. Then they could each use Noted to rank the priority of each sub-task they were given. As a result, they have a clear mapping of what tasks must be finished first based on priority and when the deadline for that task is. This will provide the software engineers with a very clear method of organizing their work and allowing them to stay on track to meet their deadlines.

2 RELATED WORK

Prioritization of tasks is highly individual and will differ between software developers. Some will split up task organization across multiple applications, and others will use software that is specifically built for task management. One example of a related software engineering tool is Trello, a work management tool with templates for to do lists. While some developers have had success with this tool, many useful features are locked behind a paywall including integration with third-party services.

According to "What a to-do: studies of task management towards the design of a personal task list manager", a task manager must be able to emulate different types of To Do lists [1]. They must be able to sort and filter tasks, show different time periods such as day and week, or be tied to project scope. Additionally, information about each task such as its state, history, and time constraint should be captured.

Currently, there are some apps on the market that perform similarly to Noted, including Google Tasks and Microsoft To Do. Google Tasks allows users to create reminders, tasks, and events from a desktop application [2]. Users can also create tasks from other Google products, like Gmail and Calendar which can help shorten the time needed to create items and events. The main issue with Google Tasks is that it does not include task hierarchy options or task dependencies, which can become useful for more complex projects taken on by software engineer teams. Another task management application is Microsoft To Do, a to do app developed by Microsoft [3]. Similar to Google Tasks, users can create task items from Microsoft Outlook and the app can be used on multiple platforms (not including MacOS). Reviews of Microsoft To Do spoke highly of the visual appeal as well as the ability to view daily and weekly tasks. However, users must have a Microsoft account to use this product and users complained that the app does not handle overdue to do items in an intuitive way.

We took inspiration from these two To Do apps by adding support for cross-platform use, including third-party integration, and keeping the UI simple. Also, we learned from "What a to-do" that users prefer to have many options to tag and filter their tasks and events. The goal of Noted is to be simple and intuitive, so that users spend as little time as possible creating their to do lists, and more time doing the things they need to.

3 IMPLEMENTATION

3.1 High-Level Design Decisions

We used an Event-Based architectural pattern when creating our to-do list application, emphasizing the user interface's (UI) responsiveness and interactivity. With this method, users can have a dynamic and intuitive experience where every action they take from the user prompts a certain response from the system. For example, using the "add event" button directly results in the user adding an item to the calendar. This pattern improves the application's capacity to manage a variety of activities effectively while also simplifying user interaction.

3.2 Implementation Processes

Cross-Platform Development: We took on the big job of making sure that our software worked on a variety of operating systems, such as Windows, MacOS, Linux, iOS, and Android. In order to ensure consistent performance and usability across all platforms, this required a great deal of development and testing.
Performance Optimization: We concentrated on making the application load all tasks in less than two seconds. This necessitated extensive performance testing and the creation of database queries quickly. User documentation: We committed significant efforts to producing an all-inclusive "Getting Started" guide that was both extensive and easy to use, offering novice users unambiguous guidance.
Update Mechanism: A crucial step in our procedure was putting in place an update system that protects the integrity of user data. In order to guarantee seamless upgrades without jeopardizing user data, this required meticulous preparation and execution.
Prototyping SWE Process: The team used the prototyping process throughout this project to develop new features. We spent time iteratively building and refining prototypes with both wireframes and storyboards. We found that this approach let us look at our app from the perspective of a potential user to determine which features should be added. This model also gave us creative freedom during the process of iteratively building our system.

3.3 Testing Approach

A crucial part of our development approach was testing. To guarantee functionality, performance, and dependability, we used a mix of unit, integration, and user acceptability testing. The cross-platform compatibility and update system received extra care to guarantee that these crucial functions operated without a hitch.

4 DEPLOYMENT

Noted is only a mobile application, thus it will be available on the Google Play Store and the Apple App Store, so users of both Android and Apple devices can utilize it. When Noted is first submitted to various platforms in accordance with their individual policies and requirements, the distribution process starts. After the app launches, we'll keep a close eye on user input, using reviews and ratings as our main sources of information. We will use your feedback to inform our future releases of upgrades, which are essential to preserving the app's usefulness and relevance. In addition to fixing any bugs or difficulties, these upgrades will improve the functionality and user experience of the app, making it easier to use and intuitive for those with different degrees of computer proficiency. In addition, we intend to add further features to Noted in response to user requests. These may include sophisticated task classification and connectivity with more productivity applications. Our update process relies heavily on quality assurance to make sure new additions work well with current features and preserve the stability of the app as a whole. We will provide thorough release notes for every version, outlining enhancements, new features, and problem fixes, to keep our users informed. We may also offer in-app instructions or web tutorials to consumers to help them learn about these new features. With every upgrade, we'll also put a lot of effort into improving data security and privacy, protecting user information in accordance with the most recent standards and laws.In the constantly changing world of mobile applications, we hope to guarantee that Noted continues to be a useful and beneficial tool for our customers by utilizing input from the Google Play Store and Apple App Store and by being dedicated to continual improvement.

5 DISCUSSION

Noted's present availability only as a mobile application limits users' access to their assignments and scheduled events, which is one of its main drawbacks. Furthermore, the app's reliance on outside APIs for calendar integration restricts its ability to synchronize with other popular calendar apps, which makes smooth data integration difficult.

Noted appears to be headed in a number of positive paths for future expansions. Developing versions for non-mobile devices, such desktops and laptops, would be a crucial expansion. Noted's accessibility and usability would be greatly improved by the development of a desktop application and a web browser version, especially for users who prefer to use larger displays for their primary or preferred work environment. The creation of a browser extension that would provide easy access to and visibility of tasks without opening a separate application is another possible extension for this feature.

The incorporation of cloud storage systems is another essential extension. Users will be able to make changes on one device and have them mirrored across all platforms, facilitating more seamless synchronization between mobile and non-mobile devices. Users who have to handle their duties while on the go or at work would especially benefit from such a service.

Furthermore, utilizing artificial intelligence's (AI) capabilities could completely change how consumers engage with Noted. Personalized user experiences, like intelligent task classification based on user behavior, automatic event creation recommendations based on past data, and proactive reminders for forthcoming events, could be provided with AI integration. AI may also be used to examine task completion trends, providing users with information to improve productivity and time management.

6 CONCLUSION

An efficient and successful task management system is becoming more and more necessary in this digital age. In order to fill this demand, we created Noted, a project that provides an alternative to notepads and basic calendar apps. We have created a dynamic To Do application for this project that is suited to the various needs of both professionals and individuals. Because of Noted's user-friendly interface, users can quickly and simply create tasks, prioritize them, set reminders, and categorize them. It also integrates effortlessly with other calendaring apps. Because of its adjustable views and user-friendly interface, which guarantees effective work management, stress levels are lowe

Noted has limitations in spite of its creative approach, chief among which is that it is only available as a smartphone application. This limits user access on many platforms, which may reduce the product's usefulness and reach. Moreover, the app's reliance on outside APIs for calendar integration makes it difficult to achieve smooth synchronization with other well-known calendar apps.

There are a number of exciting opportunities to expand Noted's capabilities and user base in the future. The development of desktop and web browser versions, extending its accessibility beyond mobile devices, would be a significant future development. By enabling smooth device syncing, integrating cloud storage options would further improve user experience. Artificial intelligence could also change how users interact with the app by offering individualized experiences and perceptive suggestions that improve productivity and task management.

In summary, Noted has a lot of room to grow and develop even with its current set of drawbacks. Noted can develop into a more functional and all-encompassing task management application by resolving these issues and investigating cutting-edge technology. This development will guarantee that Noted stays a useful asset in an increasingly digital environment while also improving the user experience.

7 REFERENCES

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