# GNG 2101 Deliverable F

# Prototype 2

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# Table of Contents

# List of Tables

# List of Figures

# 1 Introduction

This document describes the current development of the productivity planner prototype. This document supports the following objectives:

- Analyze customer feedback and comments on the first prototype
- Identify existing project information and research
- Provide status of the Productivity Planner Prototype 2
- List the recommended testing requirements and objectives
- Prototype development and analysis compared to target specifications
- Provide updates to the project task plan

# 2 Summary of Client Feedback

During our third client meeting, we presented an unfinished version of the second prototype (what had been completed at the time) and described what we wanted to accomplish in the final version of it, as well as the changes made since the first prototype. The general difference between the first and second prototypes is that the first one had very limited functionality, while the version of the second one that we presented had the main planner functionalities implemented. These included adding/deleting an event, editing the time of the event, its duration, and the colour it is displayed with. Our client was happy with the simplicity of the format and user interface (UI). She encouraged us to keep the planner just as simple going forward. When discussing some of the features planned for the second prototype that had not been implemented at the time, the client mentioned that she didn't care for the location feature. In addition, she pointed out that our current reminder-setting method would align more closely with her needs if they were set by default to remind her according to the forgetting curve (for example, after 1, 3, and 5 days). In particular, our client wants this to be a default setting to save time when scheduling an event. Finally, our client would like to be able to set the weekend for each week separately, instead of for the month/year.

# 3 Prototype 2 Analysis

In Prototype 1, UI screens were created with limited functionality and showed how components lead to other screens. The objective of Prototype 2 was to implement all the functional requirements given in the detailed design concept to meet all the target requirements derived from the client's needs. For the second prototype, the team has used the React Native framework to implement all functional components of the productivity planner (adding/deleting/editing events, adding notes, browsing through layouts, etc.). The first prototype mostly consisted of a detailed design concept and prototype of the multiple layout views (monthly, weekly and daily) in the app. The second prototype consists of additional components that contribute to fulfilling more of the productivity planners functionalities that were explained in the detailed design concept. The flowchart diagram of the functionality of the productivity planner (Figure 1) remains the same as for the first prototype, due to feedback from the third client meeting where the first prototype was shown to the client.

The second prototype has all of the basic functionalities implemented. It has monthly, weekly, and daily layouts, each containing buttons to navigate between the layouts, as well as a button to add a new event to the planner. The user can add, delete, and edit an event by making a title, selecting a start time, duration, and colour for each unique event. All scheduled events appear in the monthly, weekly and daily layouts (on their designated dates & times). Furthermore, the daily layout has a 'Notes' option, where the user can add notes for the day, which will appear in the daily view. Push notification functionality has been added to the app, however there is not yet an ability to remind the user of a selected task or event using push notifications.

*Figure 1.* Flowchart diagram of the functionality of the the productivity planner prototype
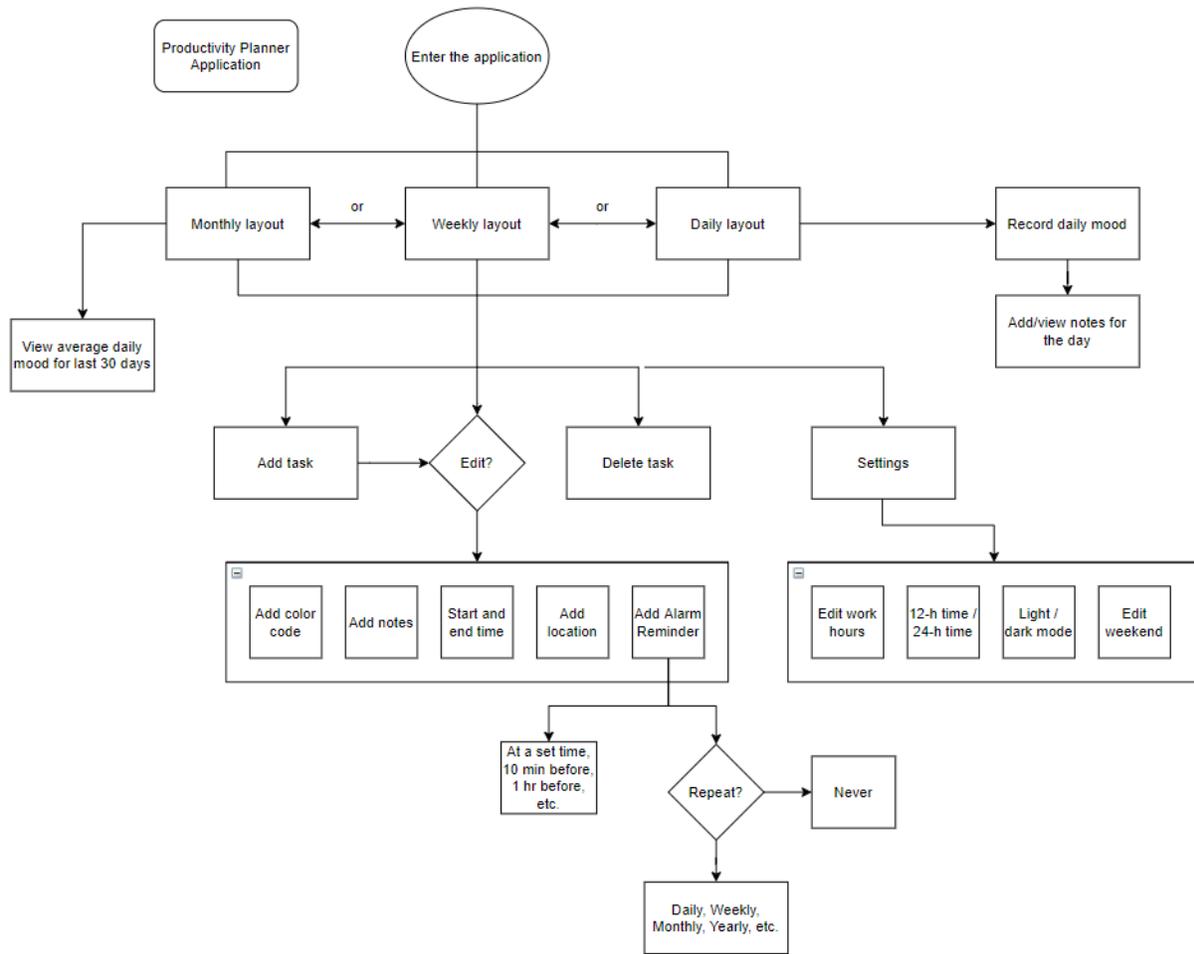
***Figure 2.*** *Monthly view*         ***Figure 3.*** *Weekly View*         ***Figure 4.*** *Daily view*
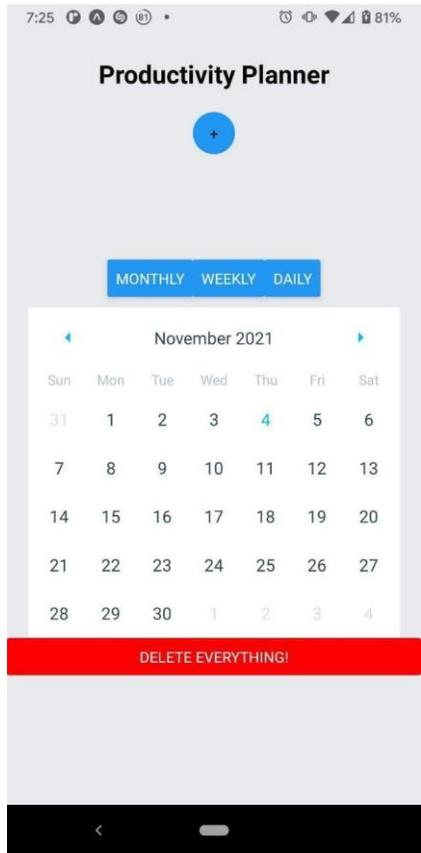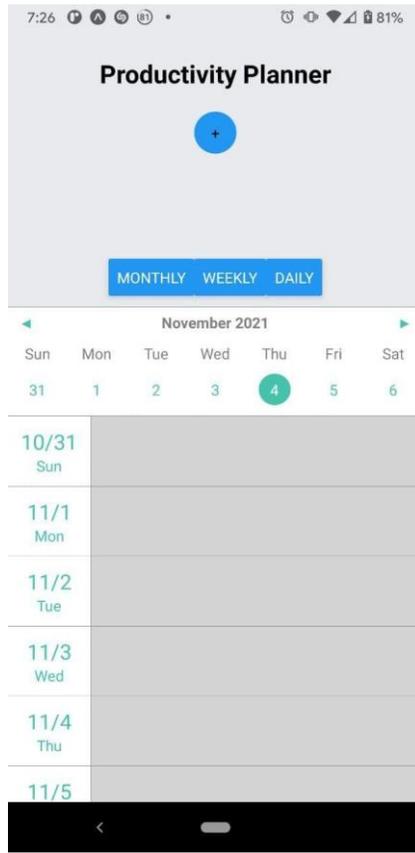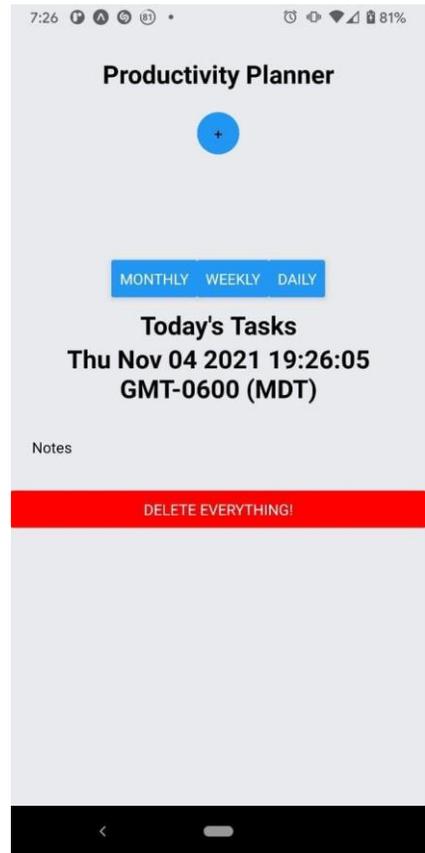
*Figure 5.* Add task screen
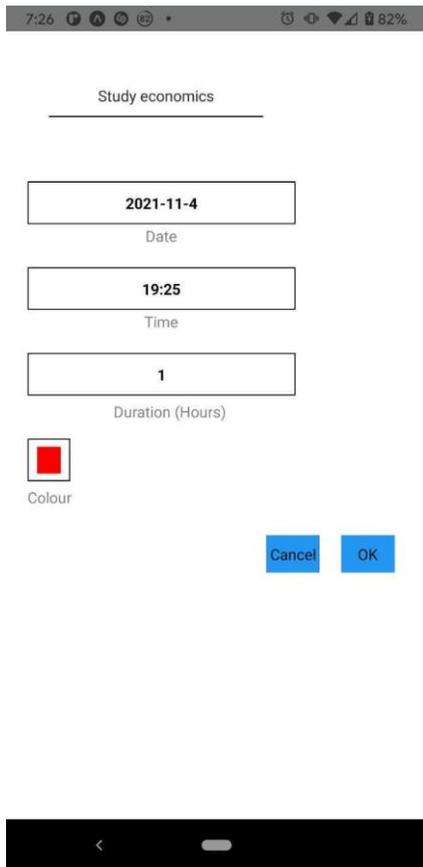


*Figure 6.* Daily view with task added
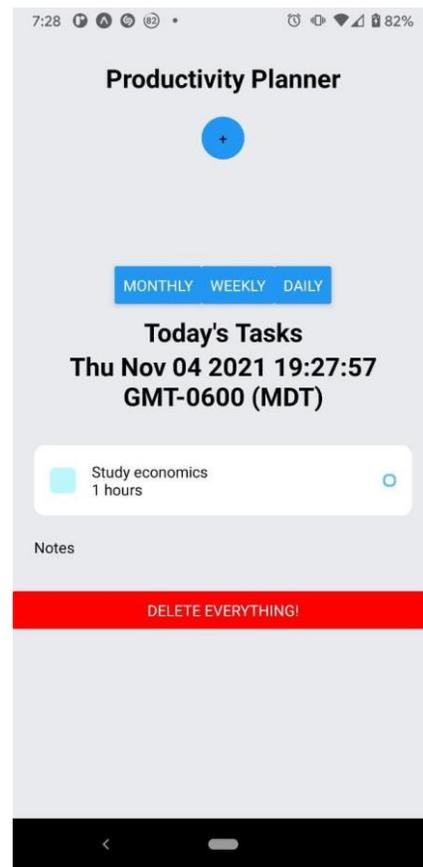
*Figure 7. Daily view editing notes of added task*     *Figure 8. Daily view with task notes added*
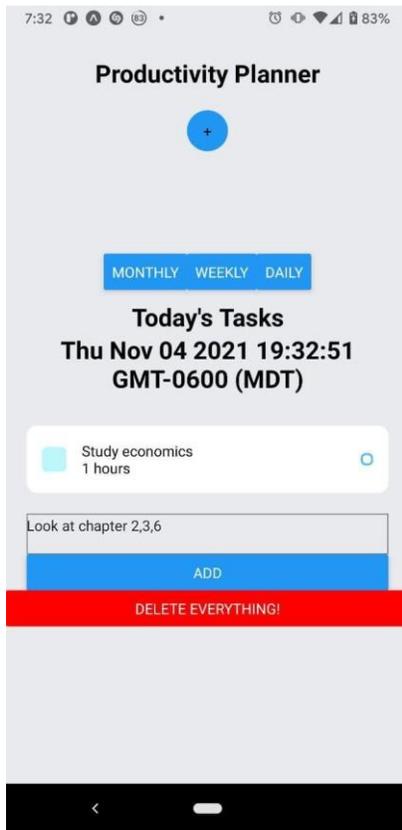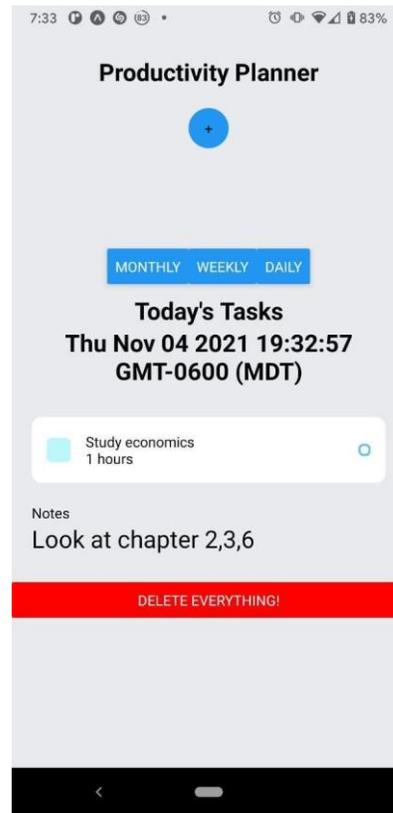
*Figure 9. Reminder button*                    *Figure 10. Reminder button test push notification*
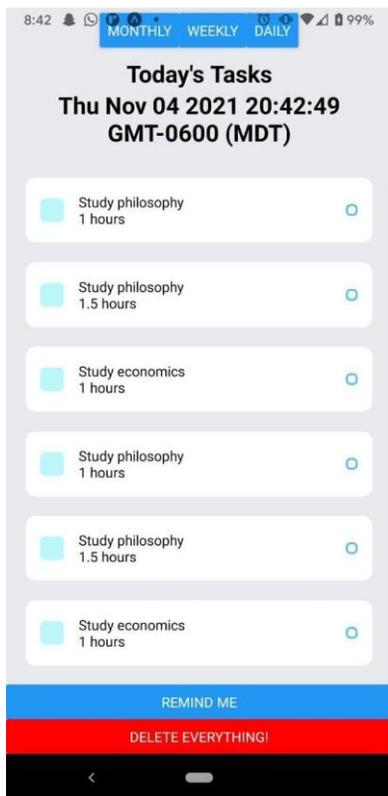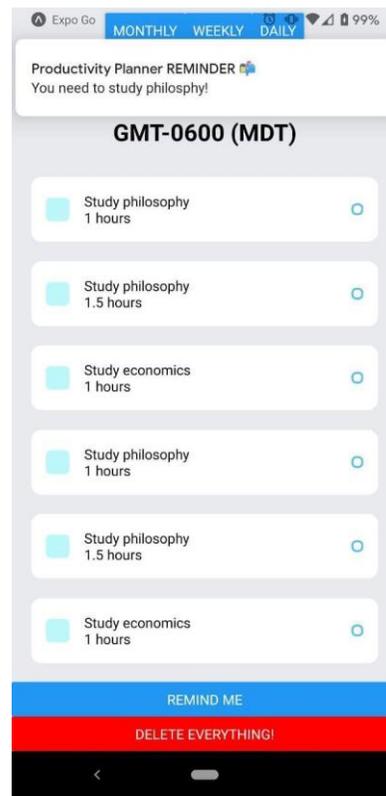




*'REMIND ME' and 'DELETE EVERYTHING!' buttons are temporary and are for
testing/developing purposes only.*

# 4   Prototype 2 Testing

The second prototype was tested primarily by doing a test run with our Project Manager (PM) and by showcasing the app to our client (we were unable to conduct a full test-run with our client). With our project manager, we went through all the steps of opening the app as if she was our client, guiding through the process of downloading the necessary apps, etc. We found that the process of opening the app currently takes too long and requires an internet connection, and since short app startup time and offline functionality are important to our client, these are issues we plan to find better solutions to. With our client, we went over all the existing functionalities of the app, such as switching between layouts, adding a title, setting a time, a date, and a colour. The feedback we received from the client was positive in terms of the simplicity of the UI and overall format. However, the client stated that she would prefer pre-set reminders, which would send reminders based on the forgetting curve. The client also wants to be able to set different weekends/days off for each week instead of setting the weekend for an entire month or year (like most planners). Finally, we described the next features we would be developing based on the flowchart (Figure 1) and the client mentioned that she doesn't care for the location feature, so this component will be low in priority.

We also did supplementary testing by comparing the functionality of the prototype to the metrics derived from the client's needs. The prototype testing results compared to metrics is shown in the table below. To summarize, we were able to implement all the functional components and the main thing we are lacking in is aesthetics. However, there are some other features that were not originally customer needs, but our customer liked them; for example, a feature we plan to implement is a 'reaction/mood' for each day. Although this component is functional, it was not a high priority, so it has not yet been implemented and will be pushed to the next prototype, which will be mainly aesthetics-focused.

***Table 1.*** *Prototype testing results compared to target specifications*

| # | Metric | Expected Result | Prototype 1 Actual Result | Prototype 2 Actual Result |
|---|--------|-----------------|---------------------------|---------------------------|
| **Functional requirements** | | | | |
| 1 | iOS platform | Yes | Yes | Yes |
| 2 | Push notifications | Yes | No | Yes |
| 3 | Color coded layouts | Yes | Yes | Yes |
| 4 | App reminders | Yes | No | No |
| 5 | Checklists | Yes | Yes | Yes |
| 6 | Offline functionality | Yes | No | No |
| 7 | Multiple layouts | Yes | Yes | Yes |
| 8 | Notes | Yes | No | Yes |
| **Non-functional requirements** | | | | |
| 8 | Simple user interface | Yes | Yes | Yes |
| 9 | Aesthetics | Yes | No | No |
| 10 | Time to open app | < 8 sec | N/A* | N/A |
| **Constraints** | | | | |
| 11 | Storage size | < 300 MB | N/A* | N/A |

*features cannot be tested until final prototype is complete

# 5 Conclusions and Recommendations for Future Work

During the third meeting with the client, the group presented an 'in-progress' version of Prototype 2 to the client. Feedback gathered from the client during this meeting was used by the team to continue implementing and adapting the functional requirements for the second prototype of the productivity planner. The final version of Prototype 2 will be presented to the client in the next meeting. Recommended future work consists of getting client feedback on the second prototype and iterating on the current product design. For the final prototype, the team will finalize the implementation of the functionality of our planner's components as identified in the detailed design concept, as well as enhance the aesthetics of the planner, and look for areas of improvement in order to best satisfy the client's needs.

# Appendix: Project Plan Update (Wrike)

https://www.wrike.com/workspace.htm?acc=4975842&wr=20#path=folder&id=758824426&c=list&vid=47238949&a=4975842&so=10&bso=10&sd=0&st=nt-1

## Planning

# Monitoring and Control

**Monitoring and Control**

List | Board ··· | Table | Gantt Chart | +

All tasks ∨ | By priority ∨

| New (5) | In Progress (0) | Completed (11) | On Hold (0) | Cancelled (0) |
|---|---|---|---|---|
| + New task | + New task | PD C quality check — DV — 30 Sep | + New task | + New task |
| PD G project plan update — PH — 28 Nov | | PD D quality check — GK — 13 Oct | | |
| PD H quality check — HS — 12 Nov | | PD D project plan update — LK — 7 Oct | | |
| PD I quality check — DV — 13 Dec | | PD E quality check — PH — 11 Oct | | |
| PD J quality check — GK — 10 Dec | | PD E project plan update — HS — 9 Oct | | |
| PD J project plan update — LK — 9 Dec | | PD F quality check — DV — 4 Nov | | |
| | | PD F project plan update — KJ — 14 Dec | | |
| | | PD G quality check — LK — 30 Oct | | |

# Initiation

**Initiation**

List | Board ··· | Table | Gantt Chart | +

All tasks ∨ | By priority ∨

| New (0) | In Progress (0) | Completed (1) | On Hold (0) | Cancelled (0) |
|---|---|---|---|---|
| + New task | + New task | PD A.1: Team contract — PH — 16 Sep | + New task | + New task |

**Execution**

Execution

List | Board ⋯ | Table | Gantt Chart | +

▽ All tasks ∨    By priority ∨                                                                                                    ⋯

| New (2) | In Progress (0) | Completed (11) | On Hold (0) | Cancelled (0) |
|---|---|---|---|---|
| + New task | + New task | | + New task | + New task |

**New (2)**

PD F: Prototype 2
PH                    4 Nov
☰ 2

PD H: Design day
PH                    13 Nov
☰ 2

**Completed (11)**

Client meet 1
KJ                    17 Sep

PD C: Concepts
GK                    30 Sep
☰ 2

PD B: Needs
PH                    23 Sep
☰ 2

Client meet 2
HS                    1 Oct

PD D: Detailed design
DV                    12 Oct
☰ 3

PD E: Project progress presentation
KJ                    10 Oct

Client meet 3
LK                    22 Oct

# Closing

Closing                                                                          ⦿ Shared  📁  ⋯

List | Board ⋯ | Table | Gantt Chart | +

▽ All tasks ∨    By priority ∨                                                                                                    ⋯

| New (2) | In Progress (0) | Completed (0) | On Hold (0) | Cancelled (0) |
|---|---|---|---|---|
| + New task | + New task | + New task | + New task | + New task |

**New (2)**

PD I: User manual
PH                    5 Dec

PD J: Final presentation
HS                    13 Dec