

Charles Noah Murphy

Grade 12

ListTD: The Better To-Do List

Commercialization Plan

Elevator Pitch: Have you ever tried to organize yourself with a to-do list using your phone's default notes app? It sucks. My product's goal is to give the user a simple but thorough way to create a to-do list that looks good.

Part 2: Executive Summary

Motivating yourself to do something is hard and a lot of things get in the way of you actually motivating yourself to do all the work you need to do in the week. One thing that helps significantly decrease what is in your way is organization. My plan is to create a simple to-do list app that gives the user the ability to create a basic list of tasks and to break down large tasks into multiple smaller ones. It will also allow the user to set priority rankings to each task, custom “due dates”, and be able to sort the list by priority, due date, and alphabetically.

Part 3: Problem Summary and Proposed Solution

I started with the problem that most students lack motivation to complete the work they need to. After much research, I found that it is incredibly difficult to motivate anybody, but found that there is a lot that can impede motivation, one of the biggest being mental health. So I decided to create something that could help decrease the amount of things impeding students from being motivated. I found that organizing can help significantly decrease stress in people and extensive to-do lists help people stop focusing on future tasks and on the current one, decreasing any anxiety and feelings of being overwhelmed. After learning this, I decided my solution is going to be a to-do list that can break down tasks and sort them by priority, set due dates, and alphabetically.

Part 4: Summarize the STEM Concepts and Principles Underlying the Overall Plan

There are two main STEM concepts in my overall plan, the first being to-do lists. They seem simple and are used all of the time, but there is an interesting bit of psychology behind them and why to-do lists work so well. The basics of a to-do list is breaking down the tasks you have to do over a set period of time to make sure you remember all of them, but that’s not the entire story. People tend to fixate on unfinished tasks, impeding them from efficiently completing the task at hand. A good to-do list eliminates the need to fixate on those unfinished tasks and allows one to focus solely on the task they are doing currently (Stafford, 2018).

The second concept is object-based programming, which is a common way to code. The basics of it is that the computer creates a piece of code, called an object, that can be accessed in most places. That object has a bunch of different things you can tell it to do, which are called methods. These methods are built-in things that can do complicated tasks for you, such as

creating a window, editing an image, or creating a graph (2018). Some of the objects are built into the programming language, some are imported in from other places, and others are created by the person writing the code to do various tasks that make the program work.

Part 5: Commercialization Assessment of the Overall Plan

Problem:

The problem I started with is that students across the U.S. lack motivation. There is a lot of evidence behind this. A study in 2004 (a little older, but still semi-prevalent) showed that around 40% of high school students lack motivation. Another study in 2006 showed that 70% of high school dropouts were unmotivated (Usher, 2011). These plus a more recent study of undergraduate students during quarantine showed that over 70% of those students lacked motivation during online learning show that students lacking motivation is a real problem (Daugherty, 2020).

Proposed solution:

There are many types of motivation, all of which can be boiled down to two main types: intrinsic and extrinsic motivation. Intrinsic motivation comes from internal wants and needs (passions, being interested in a topic, etc.). Extrinsic motivation comes in the forms of avoiding punishments and rewards. There is little data that extrinsic motivation can be effective and the studies that show it can show that extrinsic motivators are hard to make work and can possibly do more harm than good to students (Usher, 2011). Intrinsic motivations are shown to be the most effective at keeping people on task and moving in the direction they want to go in. Getting someone intrinsically motivated, sadly, is incredibly hard (Murayama, 2018). There are also many things that can stop people from being motivated in general. There are many things that can cause someone not to be motivated also. Most of them are common sense, such as anxiety, burnout, lack of self-care, illness, and mental health issues. There are others that are not as obvious such as pressures from family, friends, and the environment you are in along with perfectionism. These can combine and create a complicated feedback loop that causes procrastination that eventually leads to stagnation.

It is incredibly difficult to create a product that motivates students to do their work or something that can effectively train teachers to be able to motivate their students, however, there

are many different ways to decrease the things causing students to not be motivated and procrastinate on their work. My proposed solution is to create a to-do list app with features such as being able to create multiple lists, subtasks, due dates, setting priorities, and being able to easily sort the list. This would be effective because organizing helps decrease anxiety and detailed to-do lists help one focus on what they need to do one task at a time. Humans have a tendency to fixate on tasks that have not been completed and that decreases focus on the task at hand and creates anxiety (Stafford, 2013). Creating a to-do list solves these problems and an app that lets you do all of that online is an easy way to do this, but from what I have found there is a distinct lack of decent to-do list apps around.

Target customers and intended users:

My target customers and intended users are simple. They are anyone with a need for a decent to-do list on their phone/computer willing to download the app and possibly pay a little bit of money.

Competitors:

From a few simple searches on the apple app store, there are many competitors for my product. The direct competitors are all of the apps that are other to-do list apps. Most of them are free and the one that I could find with similar features to my product was *Things 3*, which is being sold for around \$10. My indirect competitors are calendar and other organizational apps. There are too many of them to mention, but the majority of them are free.

Customer value proposition & competitive advantage:

My product is different from other competitors in a couple ways. The first is that I plan to use multiple fun and different designs to make the app pleasing to the eye. The second is being one of the few apps out there that allow for subtasks and being able to set task priority.

Principal revenue streams expected:

The majority of content in the app will be free to use. Customizability is an important factor for motivation and engagement so there will be a limited number of custom designs that

the user can use. Additional, more complex customization will be available at a cost each time. This price will scaffold from \$0.99-\$1.99 depending on the complexity of the element.

Principal startup and operating costs expected to be incurred:

There are almost no startup or operating costs that will be incurred. Making the app will be mostly my time, along with the design of it. I might be commissioning a little art from some local artists, but that will not cost much. The largest cost would be if I decide to put it on the Apple App Store, which is \$99.

Part 6: Science and Technology Proof of Concept

Review and assessment of the scientific literature:

Much of the scientific literature is explained and summarized in Part 5 under Proposed Solution, however, to reiterate one of the most important parts, the scientific community has discovered that detailed to-do lists can help decrease anxiety and increase productivity because humans have a tendency to focus on tasks not yet completed instead of the task at hand and to-do lists put all of those thoughts on paper, decreasing the need to think about and remember all the things you have unfinished or have yet to start (Stafford, 2018).

Hypothesis:

Students need a way to manage their mental health because I learned that the main thing impeding student motivation is poor mental health and that I cannot do much about their motivation to do something, but I can decrease the number of things impeding them from being motivated. If I create a creative to-do list app that is informative and easy to use then students who will use it will be more organized and encounter less stuff stopping them from doing their work.

Inquiry or design-based discussion:

I will be explaining my app in more detail by using the 5 E's of user experience (How the user is enticed to use, enters, engages, and exits the product and extends the user experience). The user will be enticed to use my product through its looks, appealing features, and online advertisement. They will be able to enter my product by opening up the app. The product I am

creating will have a few main features where the user can interact with the app. The first will be the ability to create and save multiple lists that can be created and accessed through a list selection tab.

Inside these lists one will be able to create points, 2 levels of sub-points, and set “due dates” and priority levels to help organize the list. One will also be able to check off each point and subpoint when they have completed the task they have done, along with sorting the list by due date, priority, or alphabetically. Another feature will be allowing the user to customize how the list looks. They will be able to make these changes in a settings tab which will allow them to change the theme of their lists (changes color, design, and fonts. These will be premade), the font of the text used for their lists, and the shape of their points and subpoints. The user will be able to exit the app by closing it. What will extend the user experience is after they have created a list, they will want to come back to check off each task throughout the day and to make more lists.

Sketches:

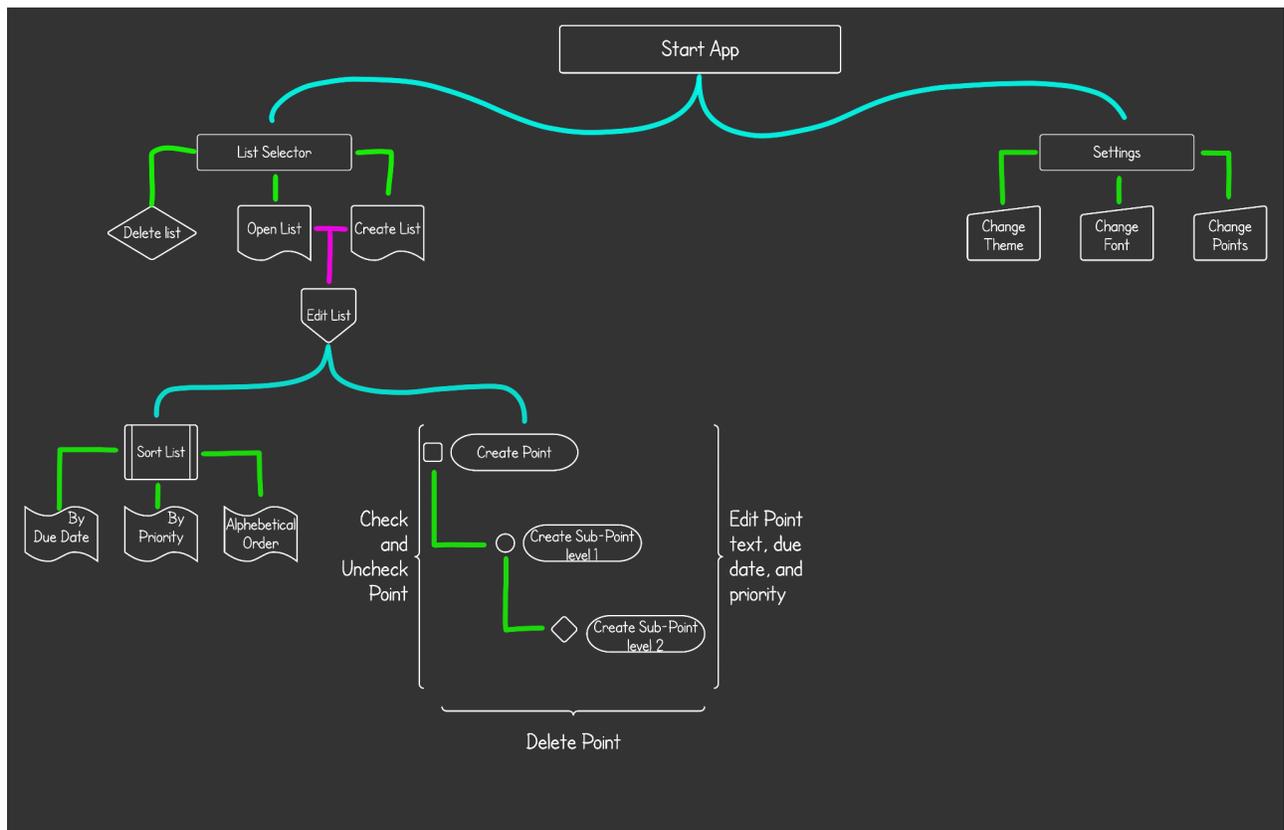


Figure 1

This is a wireframe chart of how the user enters and interacts with the app.

An important part about creating a product is doing proper research on what people want. More research is needed to figure out how many designs to include for the themes the user can choose and what designs the users want. A rough-prototype will be made with the main features that make this to-do list app different, which are being able to set priority level and due date, along with sort lists by these and alphabetically. This will be sent out to potential users to get their feedback on how the app is working along with what themes they would like to have and if there are any aesthetic changes that could be made to make the app better. After a decent amount of time and enough user feedback, the app will be made into a final product and released.

Part 7: Acknowledgements

I want to acknowledge Kathleen Metcalf for helping me along with the rest of our senior class for helping guide us through this project and setting up many different meetings with people from different fields to listen to our ideas and develop our ideas and projects.

Part 8: References Cited

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