Assignment One

Team members:

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What we are going to build?

Our team is building an Android app to discourage time-wasting. We think that time-wasting is a bad thing and hope to encourage users to spend their time more productively by playing into people's competitive nature by helping them waste less time than their peers. We aim to implement features including a personal and customisable avatar, passive-aggressive push notifications and a friends system.

We chose to build an Android app because the majority of our group has phones that run Android. As we know the Android operating system is better than the iOS operating system, it will be easier for us to access different software, transfer skills and knowledge, and develop an app that both works well for Android phones and that appeals to Android users.

We will make our app graphics-based, with the user avatar taking centre stage on the opening page. We will have a menu to take the user to other parts of the app like a statistics page where they can see how they are stacking up compared to average figures, their friend's figures, and previous personal trends. Other pages we will implement include an in-app store where users can trade their in-app currency for avatar customisations, an ideas page where users can take a look through suggested ways to waste less time, and a timer page where users can start, monitor, or stop a timer that is keeping track of the time they are not wasting.

Who is in our team and why?

Our team has four members: Amy, David, Jake and Tom. Our group is diverse, we believe we are representative of gender, study major, and life experience and think this diversity will help us to build an app that is enjoyable for a wide range of users. We are aware that we are not well represented in regards to disability and because we would like to make our app easy for everyone to use, we will make extra effort to ensure we create an accessible app by conducting appropriate research.

We are taking advantage of our personal strengths, Amy is taking responsibility for our graphics as a COSC342 computer graphics student, David is taking responsibility for the statistical and functional side of the app as a post-graduate physics major, Jake is taking responsibility for the report writing and forming a big-picture plan for the app expert as he is an extensive planner, and Tom is taking responsibility for becoming the Kotlin team-as as he is a confident coder.

How we are going to build it?

We are going to build our app using scrum-like processes. We will not be holding daily in-person meetings but we will be meeting weekly while keeping ourselves available as needed to assist team members over a Facebook messenger group chat. We will be using GitHub as a version control system to centralise our development and decentralise our ability to access the project. We will be using specific practices of continuous integration and utilising different branches throughout development to ensure a clean and consistently functional mainline.

We have formed a Gantt chart to track the progression of our tasks and to manage our iterative development processes. We will check in on our task progress using the Gantt chart each week at our meeting to ensure that we are on track with the tasks that we have been allocated. If a team member was unable to complete their work in the previous weekly sprint then we will reallocate it at the following meeting and we will update the Gantt chart to reflect the scheduling changes.

We require our Gantt chart to be adaptive and to change with our project and expectations. We expect to be adding tasks as we come up with more ideas or dive deeper into components of the app that we build successively and want to improve. We expect to remove tasks or deallocate them as we change our minds or encounter resourcing or scheduling issues. We also expect to change the specification of tasks as we grow our understanding of the app, system, and code.

How long it will take to build?

We will be able to implement our entire project if we have estimated our task durations correctly and we do not run into trouble, however, we do not expect this to be the case. According to our Gantt chart, we should be able to meet all expectations of all of the assignment submissions with enough time to work around minor issues as we have included small floats. Given our flexibility with certain tasks, we should be able to deal with scheduling issues arising from unforeseen implementation problems by removing unnecessary features.

The components we must complete include a functional user interface, a simple avatar, user input processing, and comparison statistics. We would also like to include a friends system and notifications but these are features of lesser priority. Given more time than that available, we could develop our app into a social-media-like platform where active influencers can prove how little time they spend on useless tasks.

The components that we expect to speed through are the simple user interface components as well as the mathematical calculations as we have all done these things before. Components we expect to take the longest include the friend's system and the avatar. While we are ready to remove the friend's system from our plans, we consider the avatar a necessary part of the app and will ensure that we leave enough time to develop this and overcome any problems in the beta.

What already exists that is similar to our app?

We could only find one similar app, it exists for both Android and iOS and is called *'Study Bunny'*. It is a simple graphics-based app that encourages users to dedicate time to studying by rewarding them for leaving the app open for a set amount of time. Users are given one coin for every ten minutes they spend studying and with these coins, they can buy their bunny customisations from the in-app store. Other functions in the app include a study-time histogram, to-do list, flashcards, and imported music. There is a concept of keeping your bunny happy by keeping them fed and frequently studying with them.

There are numerous different apps available to both Android and iOS that track productivity and while our app is focused on wasting less time, there is quite a grey area between the two concepts. There are many apps available that can be used as timers that require the user to leave the phone open on the app which disables them from using their phone

for others things like games or social media. There are also lots of goal-based apps that track habits that the user confirms they did or did not complete for a goal-specific timeframe.

How we will differ from that?

Compared to *Study Bunny*, our app will be less focused on studying and more on just wasting less time and we will have suggestions for users to look at if they need them. Because of not being study focused, we will not need anything like to-do lists, flashcards or music. We were already planning to implement a reward and in-app store system but we will make sure that our customisations are appropriately priced as we felt those of *Study Bunny* were too expensive and unattainable. We are also unsure whether we will use a money based currency or just a point system.

While we will offer users the ability to time themselves while they are not wasting time, we will not require the app to remain open as we understand that there are useful ways to be on your phone. We will also offer more than the other apps as they focus completely on the timer and do not offer much else whereas our focus is more about improving the user and plotting them against their friends. We will also have the avatar, reward system, and customisation options that the other timer apps just do not have.

We are not going to offer users the ability to track habits, though we are going to offer them the ability to add their own labels to the time they record. This may enable them to track time habits such as ensuring they allocate a specific amount of time each day to a certain task, but this is less about the habit itself and more about the time spent doing it.

Who is our target market?

Our target market is late high school and early university-aged people who want to waste less time. While there is no defining characteristic that connects such people, we believe that the age group we have identified are vulnerable to wasting time due to their lack of time structure as they start to become more independent. We have identified this specific target market because of how structured life tends to be leading up to this age and how set in their routines people tend to be once they pass out of this age.

Our goal is to encourage users to live a healthy life and while our target market is still trying to figure out exactly what that means, it is important to assist them to spend their time doing meaningful tasks and learning how to effectively manage their time, and not just sit around and waste time because they can.

Why will our target market be interested in our app?

We will make our app appealing by ensuring it is fun and easy to interact with, and that it is accessible. We will rely on our group's diversity to ensure that our app engages a wide range of users.

We will appeal to our target market specifically by tailoring features to the age group we have identified. As late university students, we are not in our target market but we have all recently come out of it and it helps that we are similar ages to our target market because we believe we have a fairly good understanding of what appeals to them. The wider age group encompassing our target market is known for being tech-savvy and fast-paced and we will ensure that our app works for them.

Having a graphics-based system, a clean and simple user interface, in-app currency, and a customisable avatar will help us appeal to young people. We also think that being able to connect and compare yourself with friends will help our app become a part of our target markets life. Other features that will appeal to young people include push notifications and suggestions for other ways to be spending their time. We will make the push notifications fairly casual and passive-aggressive to lighten the mood with young people and create a more welcoming relationship with the app than one might feel towards a factual and formal notification. Our suggestions will be relevant to young people and will encourage healthy lifestyle choices appropriate for the age group such as socialising, studying, sleeping or exercising.