SP Singapore Polytechnic

<u>DEUI Proposal CA1</u>

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Group Name/Number:
ProStudents
Group 2

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Date of Submission: 22/11/2021

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Table of Contents

Contents

1.Introduction

Many students are met with many assignments given by their lecturers. Students are expected to meet their deadlines with their assignments even with their schedules packed. However some students may not keep up with their assignments due to the lack of time management within themselves. This leads to a lower quality of work and missing the assignments' due date. This is a problem as it may affect our grade or our overall satisfaction of our work. Our team wants to help students that struggle to keep up with their school work.

Problem statement

How might we improve students' productivity?

Solution description

We want students to feel productive and still have time to be able to do the stuff they like. Thus, we decided to create an app that will help students manage their assignments with a simple and easy to access features such as calm studying music, function that can lock our phone while studying, function that can rate our performance at the end of the day. These features will help students reach closer to their goals. This will help them sort out their work carefully and also able to set work goals. In order to find out more about students' frustrations, we decided to carry out interviews and do further research from there. This will help us find out how we find out ways to improve students' productivity.

2. User Research & Analysis

Interview methodology

For our user research and analysis, we concluded to set our target audience as students that have difficulties with their tasks and routines. This results in their targets being unachieved or compromised. As a result, to further deepen our understanding of this, we conducted three interviews with various individuals who matched the criteria for our target audience. We started with personal questions to know more about our interviewee's individuality and daily life such as "Tell me about yourself", ""What are some key characteristics about yourself" and lastly What motivates you to work hard??". Then we proceeded to ask questions focused on their objectives, drives, and annoyances such as ". Are you able to keep up with your goals/schoolwork while managing your own time? "Is your schedule feeling packed"," When was the last time you felt productive?" and similar related questions. We were able to find out about the tasks they are managing right now and the reasons why they are not able to be productive enough to reach their goals. Not only that we gained further insight into their mental health which is also a considerable factor that we learned through the interviews. After performing the interviews, we created a character persona by compiling all of the users' goals, motivations and frustrations .

The question template is found in **Appendix A.**

Personal Analysis

Low Bao Tian's analysis

In the interview I learnt that student do not use calendars to sort out their schedule due to the inefficiency of it. In order for students not to feel mentally stressed/burnout, they mix their work schedule and their hobby together, hobby being their stress reliever. But during packed schedule, there would not be any time for their hobby due to having not track any tasks, student can have a hard time on sorting out their schedule efficiently. Students tend to feel/be productive due to inspiration of parents or someone they look up to. Students clique/social circle can also affect heavily on their productivity. Distractions also play a huge part of not being/feeling productive, in this day and age, most of us own a phone and phones are one of the largest form of distraction among students as it is the most accessible. Students also get a boost of productivity from inspirations like their family, being able to support them in the long run.

What can be done better during the interview:
-More questions that are more relevant to our user research

<u>Sakshi's analysis</u>

In the interview, I learnt that students' motivations to work hard does not only revolve around grades instead fear also plays a important part together with friends and family. Students are not able to have a school-life balance it comes at a cost of their mental health such as lack of sleep and stress. Distraction due to entertainment apps on their personal phones is a key factor in students losing track of time which often leads to work being piled up. Due to inconsistent time management, assignments have to be rushed last minute which is overwhelming to do. I also learnt ways students suggested to use in the future or are already using to manage their time better and be more focused. Setting reminders would help students not forget and start their assignments on time. Taking short breaks in between studying also gives students to regather themselves and relax before studying again to not be burnt out. Interestingly, music also helps students be more focused.

What can be done better during the interview:
1.The interview could have asked on their daily life so that we can better understand how they divide their time in a day so as to see how the interviewee priorities his/her tasks.
2. More into depth of the actions the interviewee took in the past to deal with anxiety and lack of sleep. This is so that we can understand and ideate how we can help the interviewee in the app we want to create.

<u>Pravin's analysis</u>

From the interview , I have learnt that students even though they have the motivation to work hard and plan out their timetables, they still are not able to do their work which they intended to do. This is due to them getting distracted by their phones or not being motivated at the point of time where they were actually supposed to work. Therefore, causing them to not achieve their intended effect of being productive, finishing their assignment on time and scoring good grades leading them to have unwanted stress. For them avoid their distractions they can use an app with the lockout features and to set a time period for when they won't be distracted by their phone and actually do work. They can also do group studies to help them do their work properly as they like to mingle in their social circle.

What can be done better during the interview:
-The interview can be done better by asking them what is the main reason and why they waste time like that.
-The interview could have asked more questions about persona.

Persona

Procrastinating Peter

Age: 18
Work: Student
Family: Parents and Siblings
Location: **SINGAPORE**
Character: **Outgoing**

Personality

Introvert	Extrovert
Calm	Temperamental
Observant	Intuitive
Judging	Perceiving
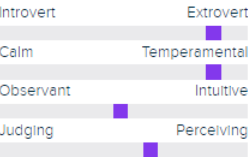
Goals

- Complete assignments and daily personal goals
- Work-life balance
- He wants to achieve good grades
- Futuristic life goals that makes him financially independent
- He wants see his growth and progress

Frustrations

- Procrastinating regularly
- Inability to prioritize different tasks in the limited time he has .
- Compensate his mental health for the lack of productivity.
- Easily forget assignments
- Easily distracted

Bio

    Procrastinating Peter is motivated student. He is someone who is extroverted and has worked hard in his student life to receive results that are adequate enough for him to go to his preferred course of study. Currently struggling to manage his time to do his assignments and personal life due to his procrastination. This also has taken a toll on his mental health, which lead to anxiety and mental stress, because of overwhelming tasks that are required to be done in a short period of time due to the big jump from his secondary school life to the polytechnic life. The new freedom and self-directedness has influenced the way he manages his tasks now. This has caused him to unknowingly waste time and end up in stressful situations.

Motivation

Incentive

Fear

Growth

Social

Preferred Tasks

Assignments

Personal Recreational Work

CCA Commitments

Others: Eg: work
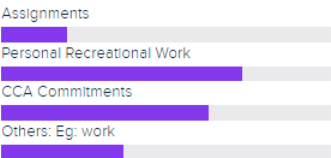
Figure 1.0: Procrastinating Peter

Journey Map

The Journey map includes our analysis of our persona's journey as they navigate and use our app. We consolidated all of our interviews before creating the stages that the user will go through in the journey map. In each stage, we analyzed the frustrations, thoughts and feelings that the user face before suggesting ideas and opportunities like functions an application should have in order to help the user in their challenges.

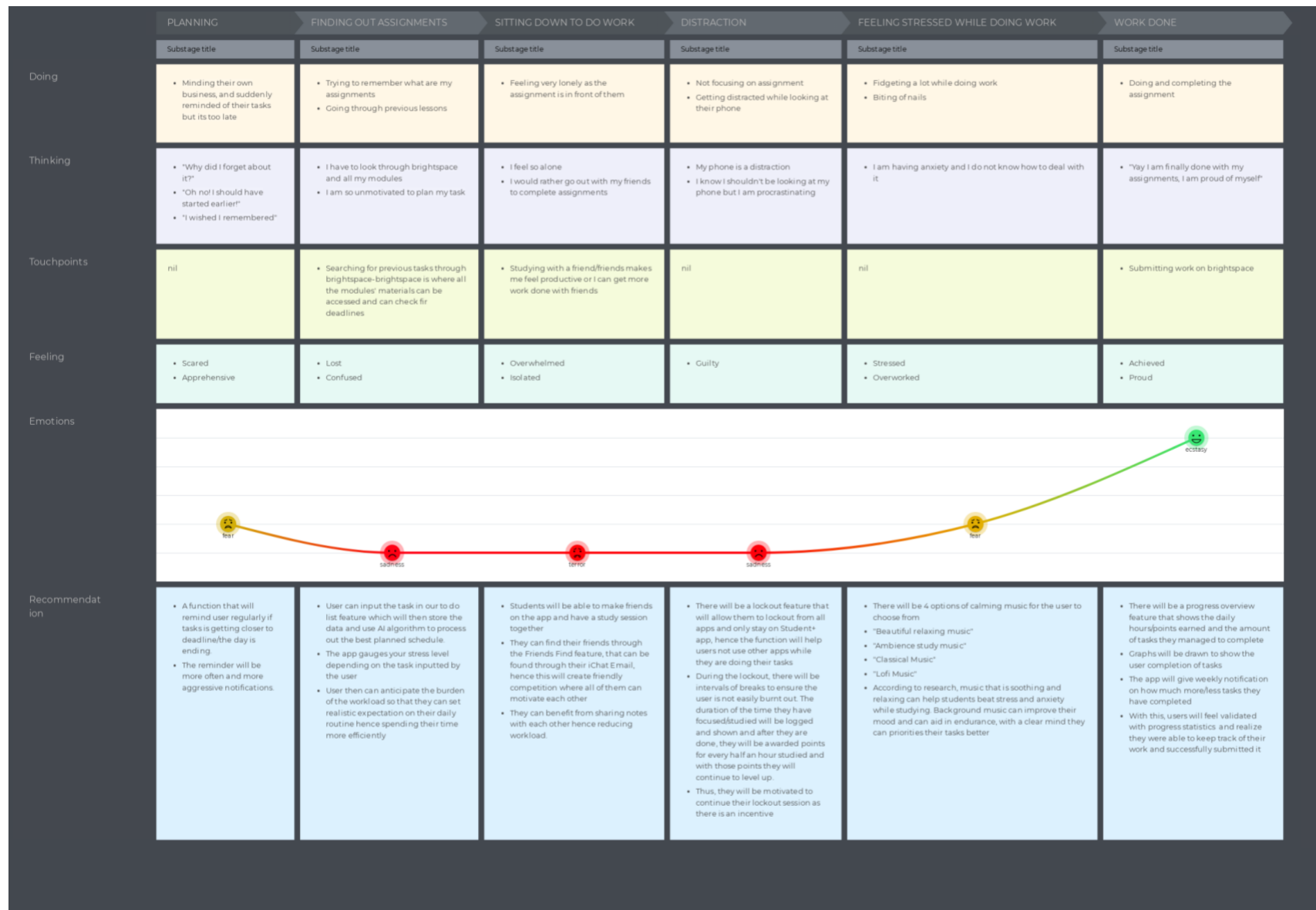|	PLANNING	FINDING OUT ASSIGNMENTS	SITTING DOWN TO DO WORK	DISTRACTION	FEELING STRESSED WHILE DOING WORK	WORK DONE
	Substage title	Substage title	Substage title	Substage title	Substage title	Substage title
Doing	• Minding their own business, and suddenly reminded of their tasks but its too late	• Trying to remember what are my assignments • Going through previous lessons	• Feeling very lonely as the assignment is in front of them	• Not focusing on assignment • Getting distracted while looking at their phone	• Fidgeting a lot while doing work • Biting of nails	• Doing and completing the assignment
Thinking	• "Why did I forget about it?" • "Oh no! I should have started earlier!" • "I wished I remembered"	• I have to look through brightspace and all my modules • I am so unmotivated to plan my task	• I feel so alone • I would rather go out with my friends to complete assignments	• My phone is a distraction • I know I shouldn't be looking at my phone but I am procrastinating	• I am having anxiety and I do not know how to deal with it	• "Yay I am finally done with my assignments, I am proud of myself"
Touchpoints	nil	• Searching for previous tasks through brightspace- brightspace is where all the modules' materials can be accessed and can check fir deadlines	• Studying with a friend/friends makes me feel productive or I can get more work done with friends	nil	nil	• Submitting work on brightspace
Feeling	• Scared • Apprehensive	• Lost • Confused	• Overwhelmed • Isolated	• Guilty	• Stressed • Overworked	• Achieved • Proud
Emotions	fear	sadness	terror	sadness	fear	ecstasy
Recommendation	• A function that will remind user regularly if tasks is getting closer to deadline/the day is ending. • The reminder will be more often and more aggressive notifications.	• User can input the task in our to do list feature which will then store the data and use AI algorithm to process out the best planned schedule. • The app gauges your stress level depending on the task inputted by the user • User then can anticipate the burden of the workload so that they can set realistic expectation on their daily routine hence spending their time more efficiently	• Students will be able to make friends on the app and have a study session together • They can find their friends through the Friends Find feature, that can be found through their iChat Email, hence this will create friendly competition where all of them can motivate each other • They can benefit from sharing notes with each other hence reducing workload.	• There will be a lockout feature that will allow them to lockout from all apps and only stay on Student+ app, hence the function will help users not use other apps while they are doing their tasks • During the lockout, there will be intervals of breaks to ensure the user is not easily burnt out. The duration of the time they have focused/studied will be logged and shown and after they are done, they will be awarded points for every half an hour studied and with those points they will continue to level up. • Thus, they will be motivated to continue their lockout session as there is an incentive	• There will be 4 options of calming music for the user to choose from • "Beautiful relaxing music" • "Ambience study music" • "Classical Music" • "Lofi Music" • According to research, music that is soothing and relaxing can help students beat stress and anxiety while studying. Background music can improve their mood and can aid in endurance, with a clear mind they can priorities their tasks better	• There will be a progress overview feature that shows the daily hours/points earned and the amount of tasks they managed to complete • Graphs will be drawn to show the user completion of tasks • The app will give weekly notification on how much more/less tasks they have completed • With this, users will feel validated with progress statistics and realize they were able to keep track of their work and successfully submitted it

Figure 2.0: Procrastinating Peter's Journey Map

3. Proposed Solution

Introduction

Our proposed solution is the Student+ app which provides a platform for users to be productive and finish tasks with an efficient schedule. Alongside its basic functions like a to do list, the app includes features that we implemented according to the user's needs from our research.

Application Functions and Features

Some key features we included according to the User's needs are..
- To do list
- Calming Music
- Lockout feature
- Progress Feedback
- Constant Reminders
- Adding Friends

Feature: To Do List

The To Do List feature is one of our main features in our app it includes adding, removing and editing of tasks. Tasks added can be scheduled to deadline, but if there is no deadline inputted by the user, the due date is defaulted by the end of the day. Nearing the deadline, there will be a reminder function. Inputted tasks will be planned out by AI algorithm to have the best planned schedule. This benefits our users by having them put their tasks somewhere in case if they forget about it. This helps them be more efficient and less stress inducing.

Features suggestion: Calming Music

Upon clicking the Calming Music Feature, there will be 4 options to choose from "Beautiful Relaxing Music ", "Ambience Study Music", "Classic Music", "Lofi Music". The songs will already be downloaded and can be automatically accessed once chosen. This addresses users needs as research shows that music that is soothing and relaxing can help students beat stress and anxiety while studying background music can improve their mood and aid in being focused with a clear mind . Therefore they will be able to manage and complete their task .

Feature suggestion: Lockout Feature

The lockout feature will encourage users to lockout from all apps and only stay on Student+ . While being on student+ , there will be the duration of the session shown and an exit button to exit and see the points they have been awarded. Every 30 mins , there will be a 10 min break given in the lockout session for the user to relax , in this break the user will be allowed to surf through their phones . This break reduces the chances of the user being overworked and exhausted . Users will earn 10 points for every 30 minutes . For every 500 points , users will level up. Not only that , users can have combined study sessions with their friends as well. Therefore users can use this feature when they are distracted and be motivated to use this feature as they have an incentives to earn points and complete their work.

Feature: Adding Friends

Our app includes making friends/studying with friends. This feature includes adding of their friends by searching their name or using their school's iChat Email. This will allow them to have a study session together. This will create friendly competition where all of them can motivate each other and be productive together. They can benefit from this by sharing notes with each other hence reducing workload. This feature is aimed to those who are sociable/extroverted and can be more productive while studying with a friend/friends.

Feature: Progress Feedback

The productivity will have the statistics of the user by recording the user's study time, what the prefer to study how long they are being distracted, etc... . Using this data, the users can see how much they have improved and get motivated by it or use it to have friendly challenges among their social circles. It can also be used to see where are their areas of improvement are and they can improve it to have better progress and get satisfied by it
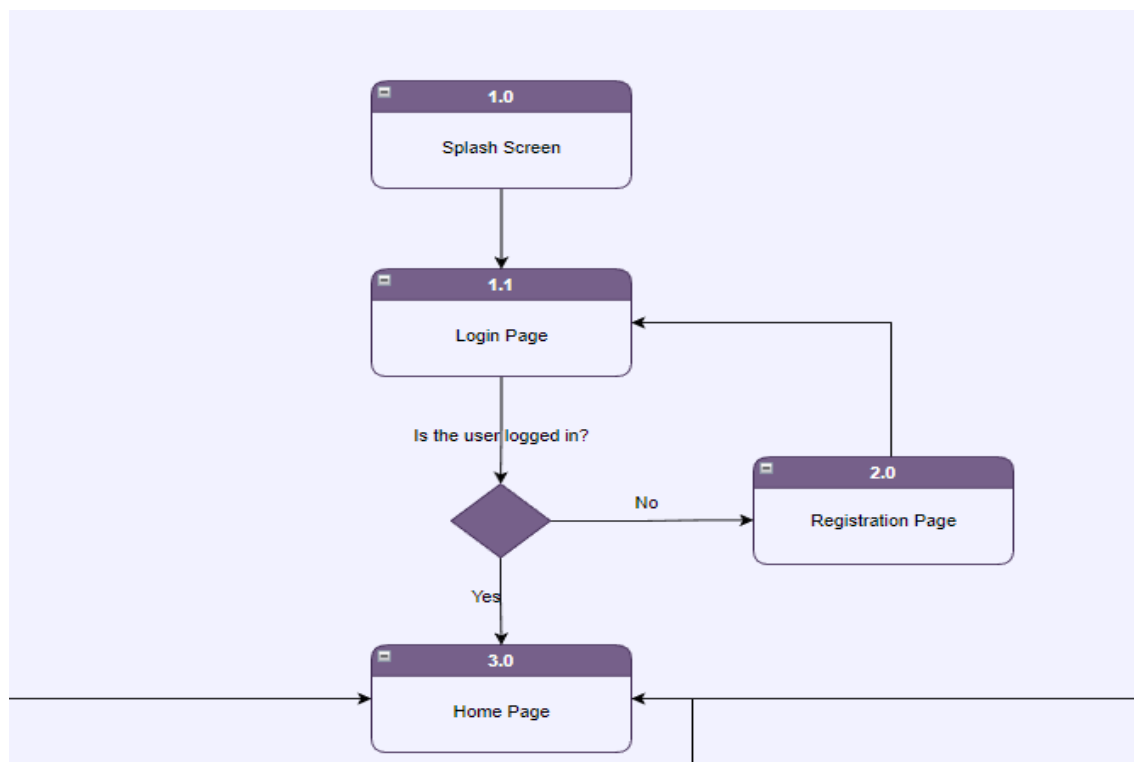
Feature: Constant Reminders

The reminders are set based on the timetable assigned and the To-Do list. For every time the reminder is snoozed the next alarm will become louder and more aggressive until the reminder is accepted. This will cause the users to feel a greater sense of urgency and do the task on time. This reminder will also help the user to have a more spread-out timetable .
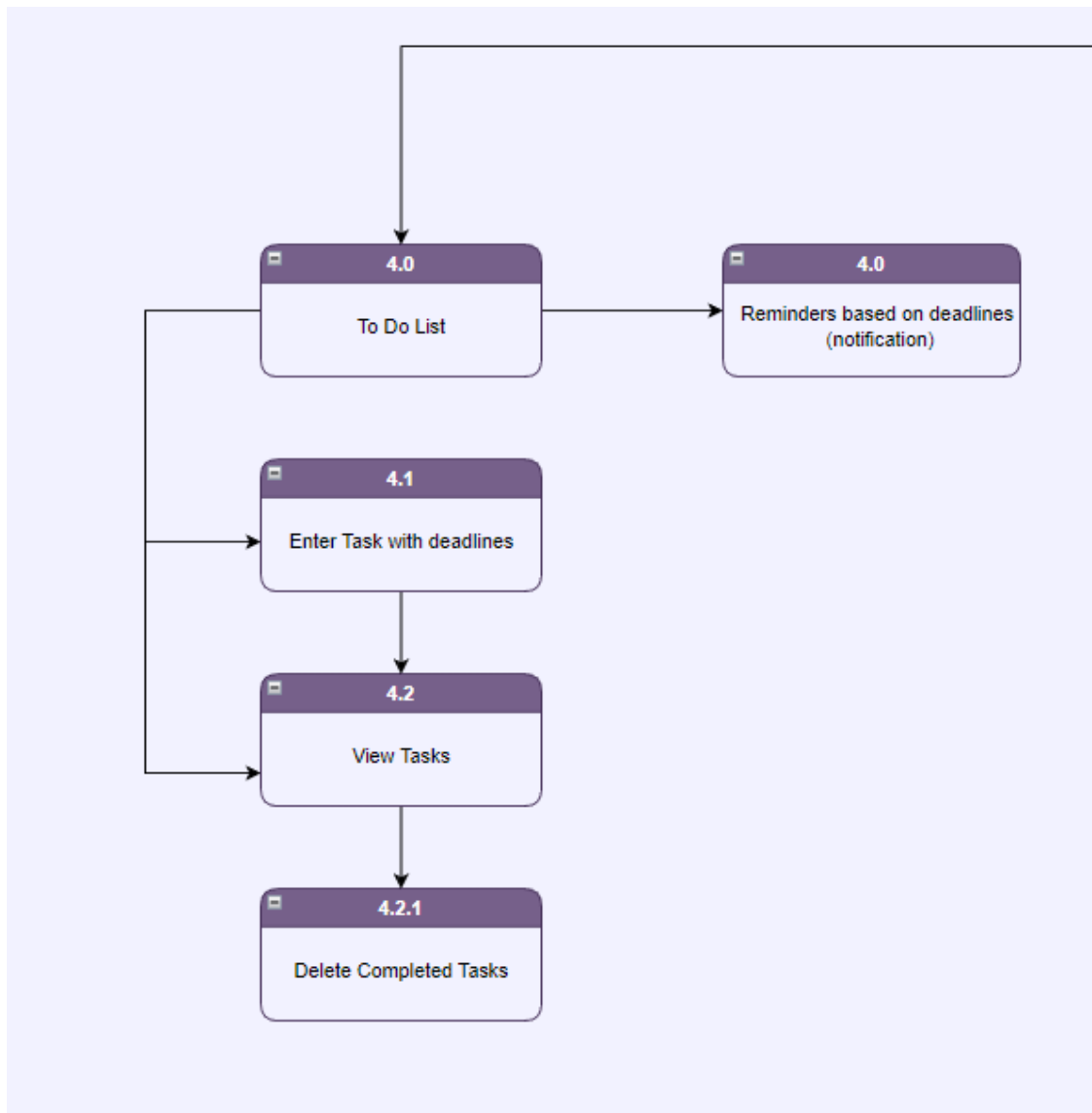
Site map(refer to next few pages)

The site map of our mobile application shows the user flow of Student+ . The flow on accessing different features from start to end is shown .The site map has been broken down into 5 pages to show the flow of the site map from login to homepage to the different features.
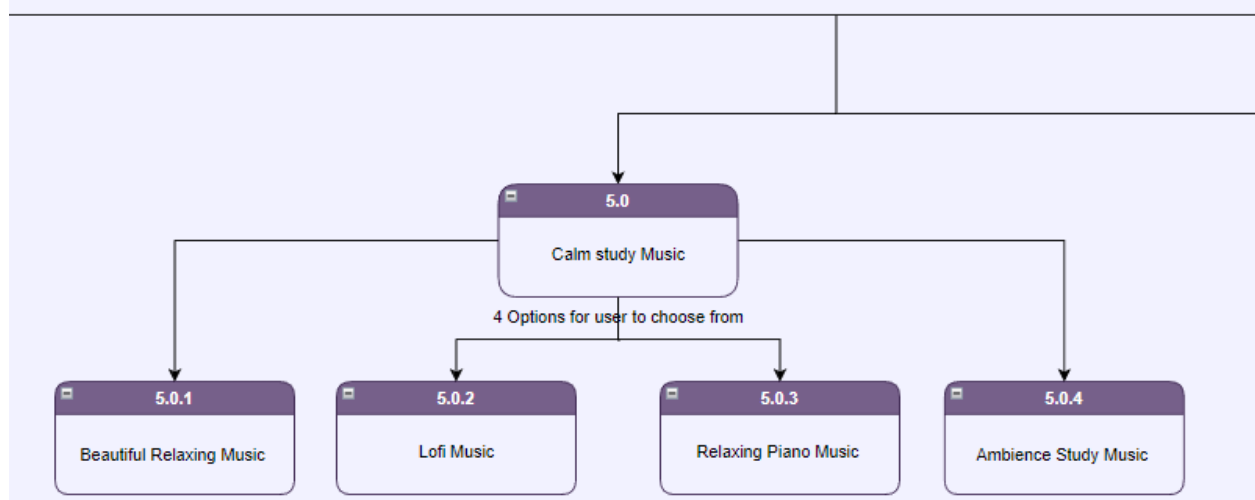
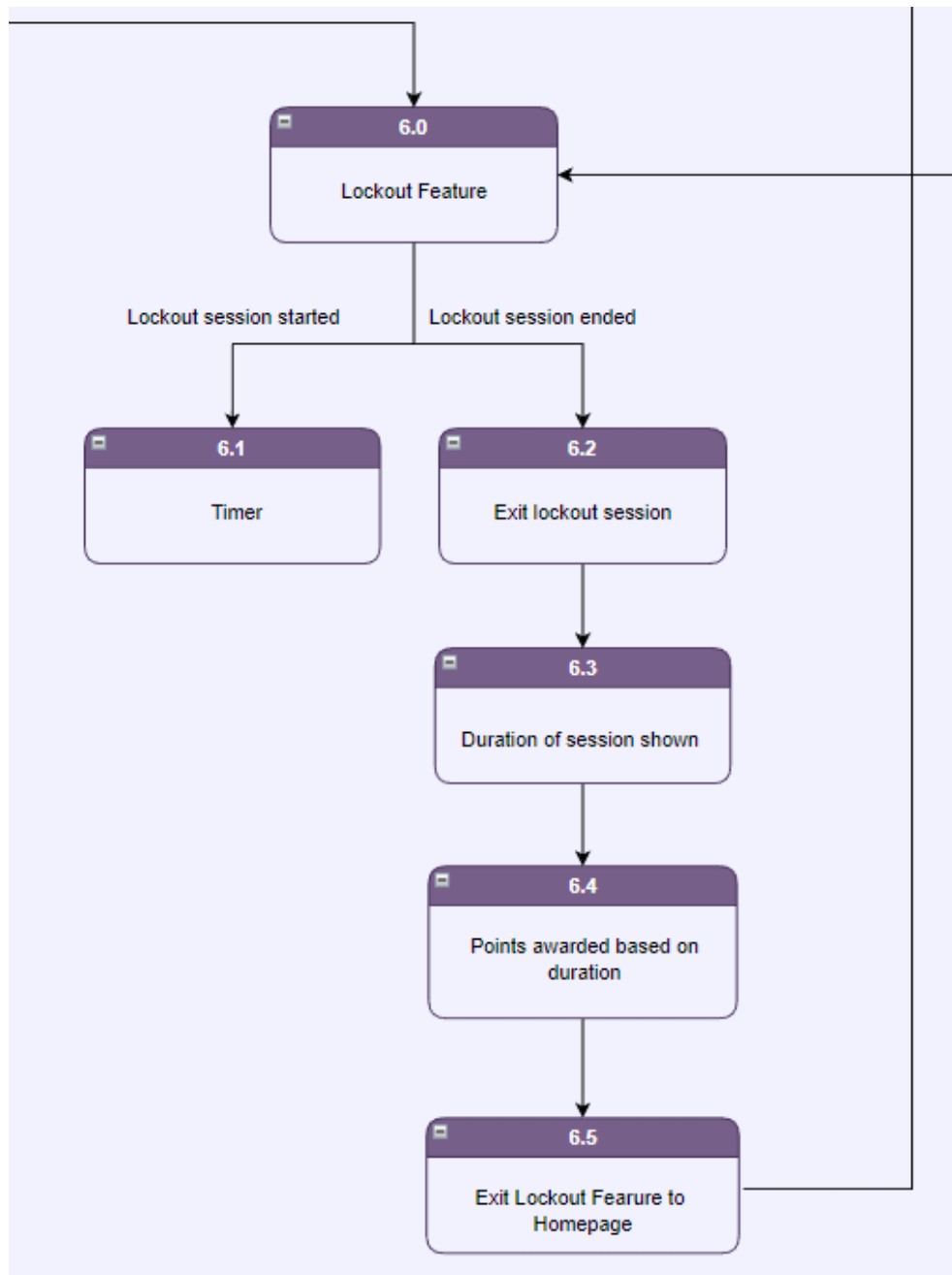**Login -> Homepage**

Homepage -> Todolist

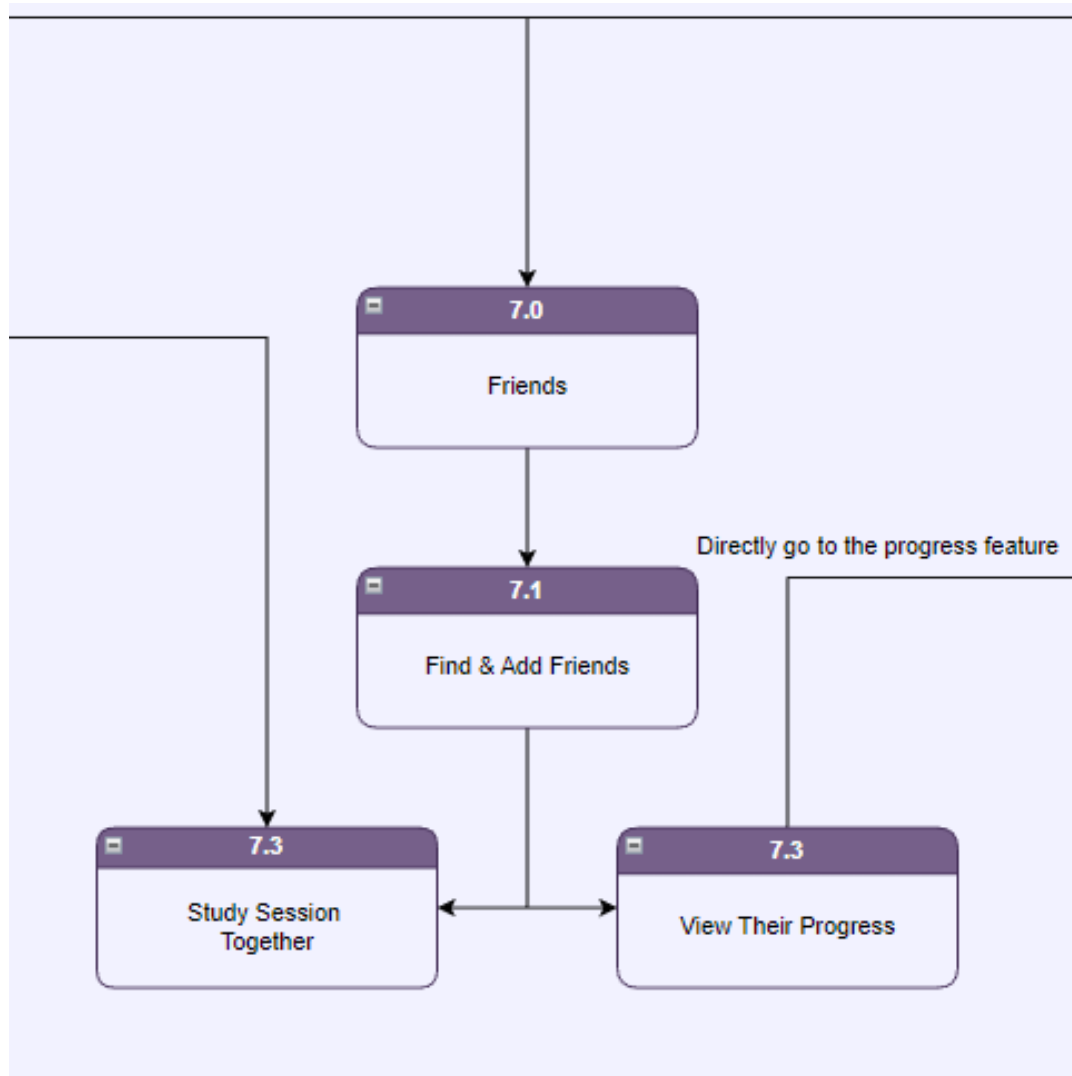|	4.0
	To Do List

	4.0
	Reminders based on deadlines (notification)

	4.1
	Enter Task with deadlines

	4.2
	View Tasks

	4.2.1
	Delete Completed Tasks

Homepage -> Calming music

5.0

Calm study Music

4 Options for user to choose from

5.0.1

Beautiful Relaxing Music

5.0.2

Lofi Music

5.0.3

Relaxing Piano Music

5.0.4

Ambience Study Music

Homepage -> Lockout

6.0

Lockout Feature

Lockout session started

Lockout session ended

6.1

Timer

6.2

Exit lockout session

6.3

Duration of session shown

6.4

Points awarded based on duration

6.5

Exit Lockout Fearure to Homepage

Homepage -> Adding Friends

7.0

Friends

7.1

Find & Add Friends

Directly go to the progress feature

7.3

Study Session
Together

7.3

View Their Progress

Homepage -> Progress

```
                          ┌─────────────────┐
                          │ ▣        8.0     │
                          ├─────────────────┤
                          │                 │
                          │    Progress     │
                          │                 │
                          └─────────────────┘

┌─────────────────┐   ┌─────────────────┐   ┌──────────────────────┐
│ ▣       8.1     │   │ ▣       8.2     │   │ ▣          8.3       │
├─────────────────┤   ├─────────────────┤   ├──────────────────────┤
│                 │   │                 │   │                      │
│   Daily Hours   │   │  Points Earned  │   │ Amount of tasks completed │
│                 │   │                 │   │                      │
└─────────────────┘   └─────────────────┘   └──────────────────────┘

                      ┌─────────────────┐
                      │ ▣       8.2.1   │
                      ├─────────────────┤
                      │                 │
                      │ Levelling up based on points │
                      │                 │
                      └─────────────────┘
```

Homepage -> Settings

9.0

Settings

9.0

Logout

9.1

Delete Account

9.0

Biometrics

9.0

Edit Account Information
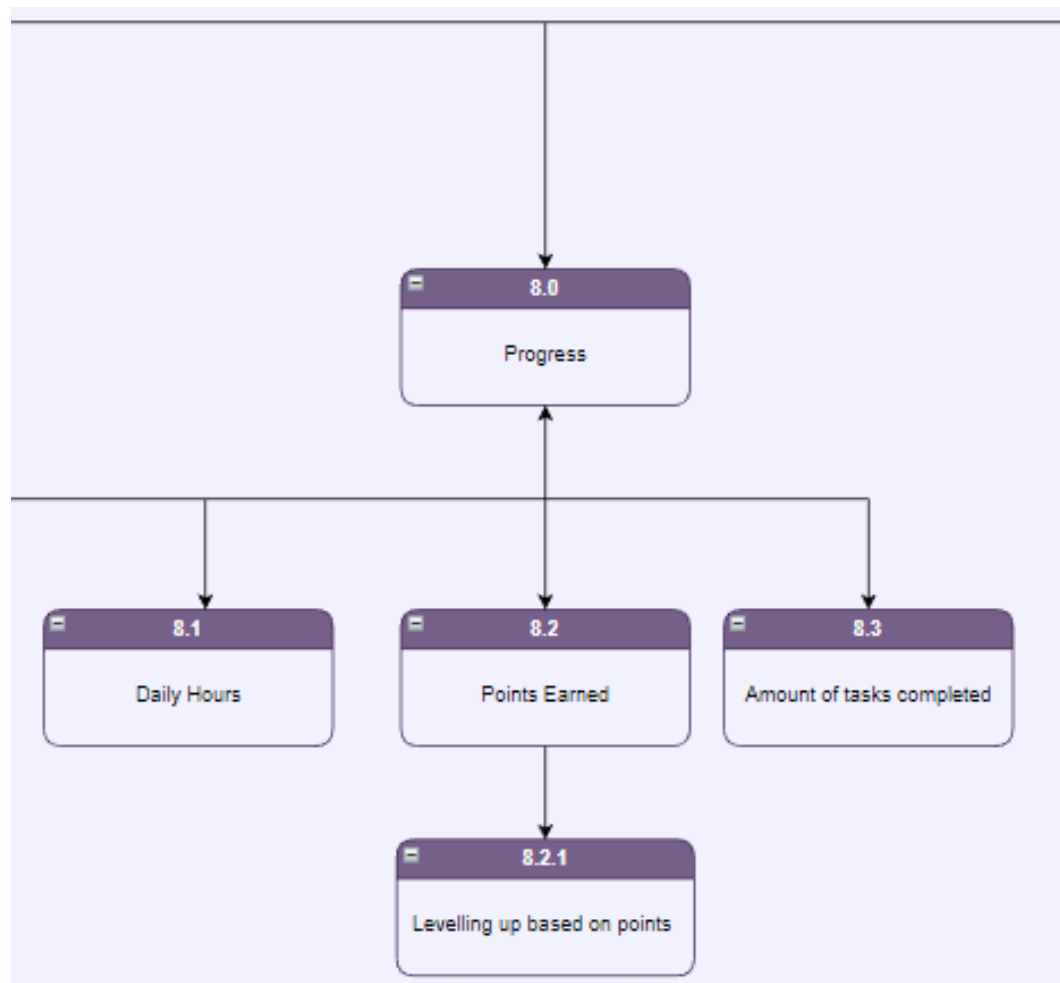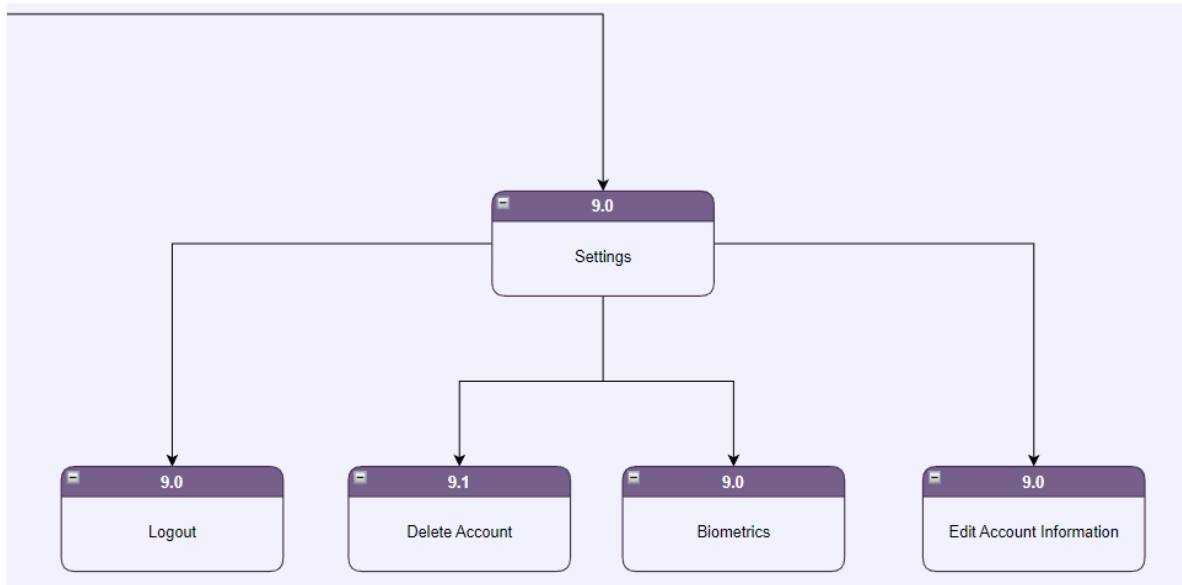
Overall view of sitemap
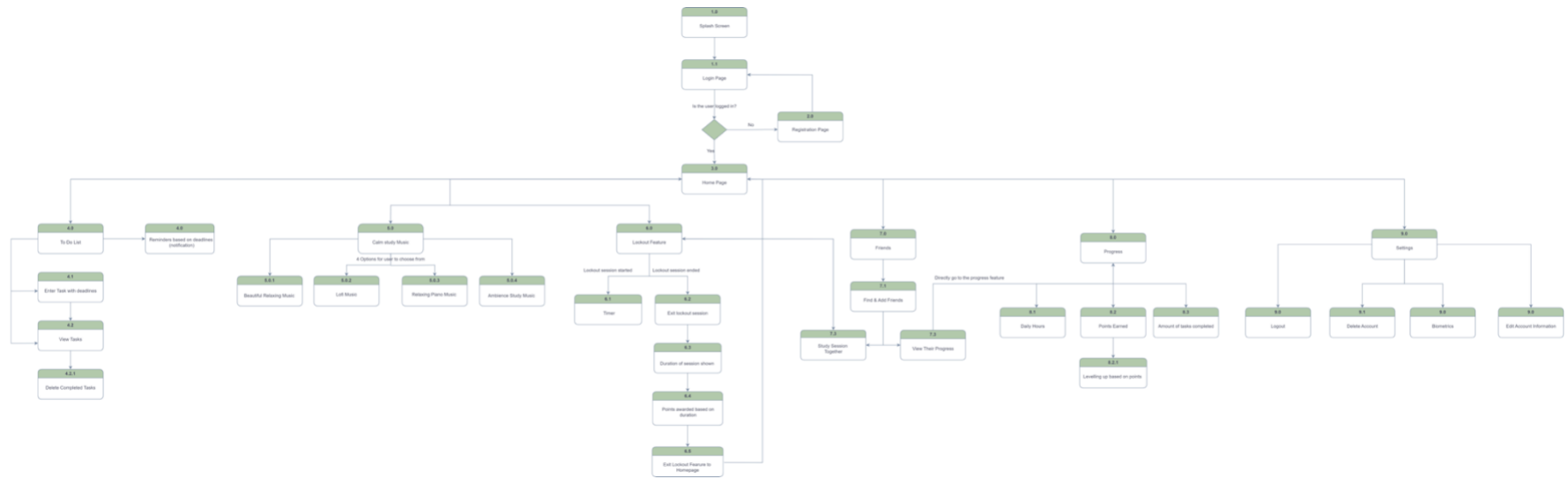
Concept Sketches

Concept Sketch (Low Bao Tian)

Splash screen
Welcome!

Login page
Logo
Login
Submit
Register

Register Page
Register
Register

Our logo as a button to use the lockout feature
Logo

Home Page
most important tasks shown at home page
O/M
T.DL | Lock out

To Do List Feature
T. D. L
O/M

Music Feature

Locking out feature
00:00
EXIT

Great Job!
XX:XX
Points Earned:
XX

Progress feature
My Progress
Lvl. O
Pts earned:
xxx
History
Tasks Completed
< xx to x x >
Hours Done
< D/M >
Hour

Friends list page
This is your current friends list
Plus button to study with them, you can study in a group
Profile clickable to view their profile
Friends

Adding page feature
Username/iChat
+ Request Friend
+ Request Friend
+ Request Friend
+ Request Friend

Concept Sketch (Singh Sakshi)
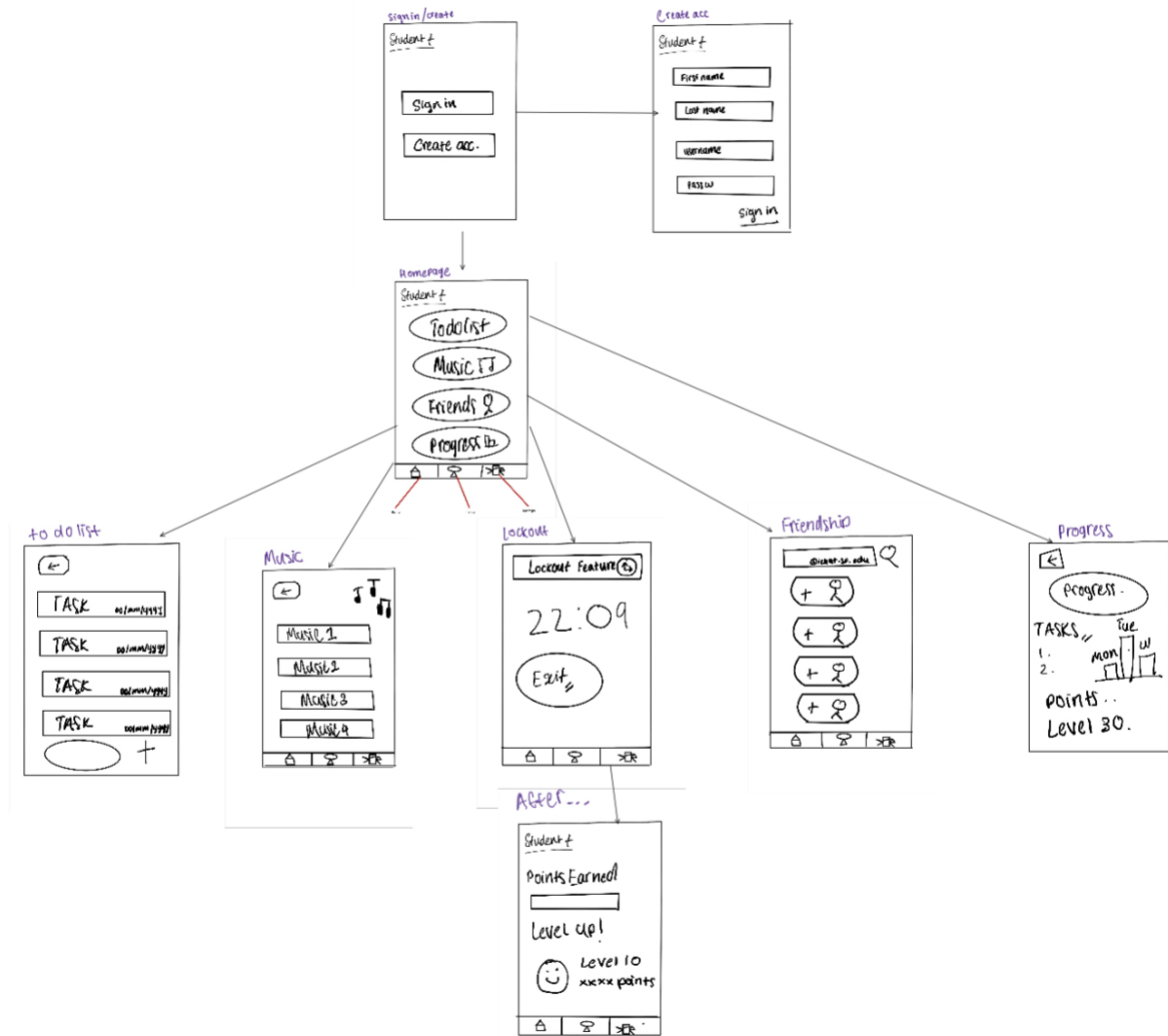
Concept Sketch (Pravin)
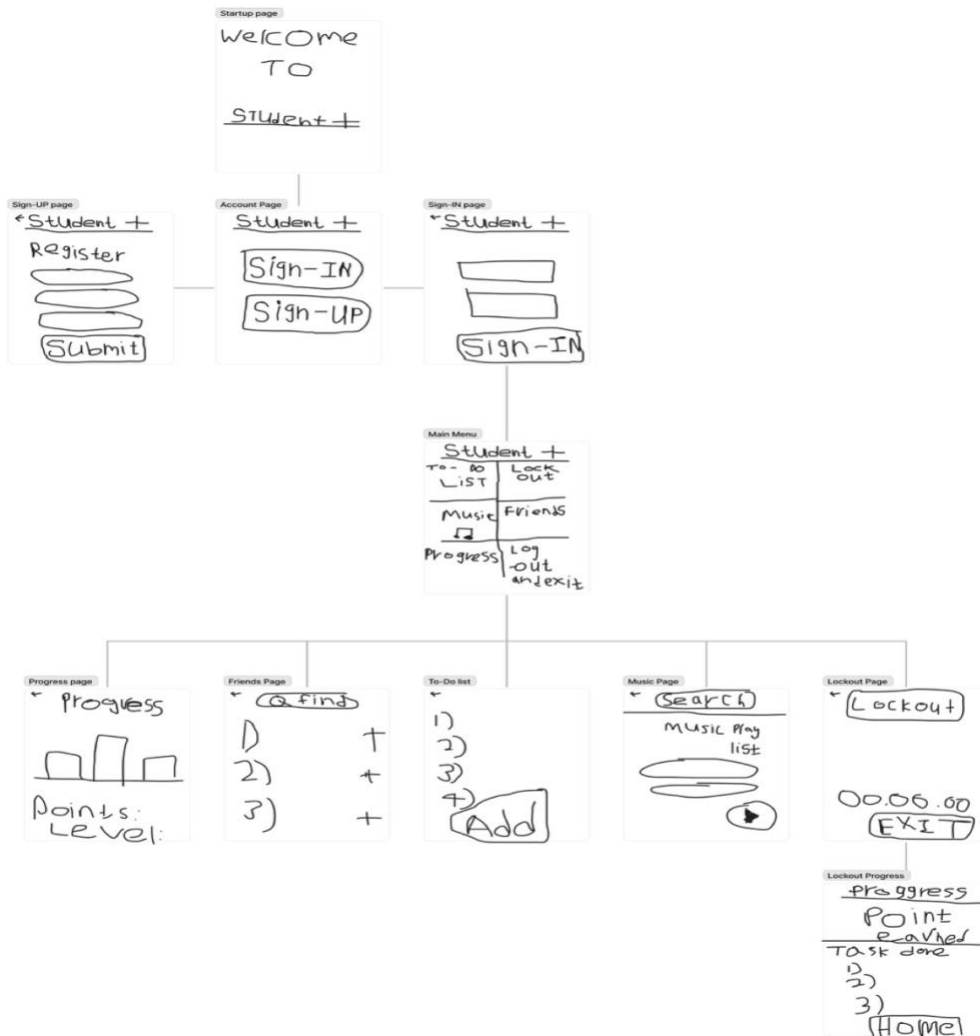
References

We Used:
[UXPressia](#) for [Jouney Map](#)
[Draw.io](#) for [Sitemap](#)
[Figma](#) for [Concept Sketches](#)

Appendix A – Questions for interview

The following are the questions asked to the interviewee.

Questions related to problem statement

1.Are you able to keep up with your schoolwork while managing your own time?

2.Is your schedule feeling packed?

3.If yes, how are you able to keep up? If no, why do you think you can't keep up?

4.How do you think you can manage time better?

5.When was the last time you felt productive?

Personal questions

1.Tell me about yourself

2. What are some key characteristics ABOUT yourself

3.What motivates you to work hard?

Appendix B – interview notes by Low Bao Tian

Interviewee: Sidi
Age: 17
Gender: Male
Ethnic: Malay
Occupation: Student
Interviewer: Sakshi
S=Sakshi, B=Bryan, P=Pravin, I=Sidi

S: Do I have your consent?

I: Yeah of course.

S: Okay, so can we start of by telling me more about yourself, like what kind of person are you

I:ahh, I think I am not a shy person, that's what everyone say to me. I feel like ah quite vague the question

S: Maybe some key characteristics about yourself?

I: Like I Said im not shy, uhm I think im like an outside person, I go out a lot. Some people call me like Im crazy, if im around people that I know of, not around yall. That's like the main key characteristics about myself ah

S: So, what motivates you to work hard?

I: ahhh people that I know of that succeeds in life. For me, like bao tian is one of them maybe, because back then in secondary his very good at like some of most of his subjects. So I am like this guy is so good, it motivates me, as he always seats beside me so kena motivated.

S: So, Are you able to keep up with your school work while managing your own time?

I: For me, can ah,my schedule right, is mainly cause I randomize my schedule. So there is study over here, and then after study sometimes may be stress and all so I will put in stuff I like to do. For me ah, I like to skate ah, so after I study I will usually go skating to relieve stress. For me, I can keep up with my school work.

S: So is your schedule feeling packed like at any point of time, near mst or even at the start?

I: For me I think like my schedule quite packed. Like I said there are a lot of stuff going on, I study here and then of course I put in stress relieve stuff ah like skating or maybe just playing games overall ah. So, its quite packed for me, but of course sometimes I don't keep track of my schedule then i would do something else. But especially during MST, my schedule is disturbed. So I would but my skating/stress reliever away and put in more effort in studying.

S: Do you think you can manage your time better? Is there a way or do you think this is the best you could do.

I: I feel like this is the best I could do.

S: This is the best you could do?

I: Yea, honestly. I don't think I can make it better.

S: Okay, then when was the last time you felt productive?

I: Uhh, last semester for EST. I actually put in effort in studying unlike my O levels. Because O levels I last minute study like two weeks before. But for EST I studied one month before and I actually learnt a lot ah cause like during the lessons I slack off. You know what lets be productive, and luckily I did quite well.

S: So you told me you have a lot of stress reliever stuff right, are there times where you would forget something? Maybe just a slip of mind when you were like packed or have many things on the to do list.

I: oh yeah. Sometimes, but not sometimes ah quite rarely but there was a time I kinda forgot to like do. Cause my schedule have like stress reliever like I said, then like I did that but while doing whatever it is like skating. EG I am like skating around, I would remember I have an assignment to be dued. Cause I don't really put anything on my calendar, so example like this one due on (eg 26 June) but I never put on 26 June, so I would have to rush my assignments.

B: **What made you like, during last MST/EST, what made you feel productive? Why Did you want to be productive?**

I: Cause like a lot of people say like what, new year new me right. And like cause of my mum lah basically shes hard working and I am slacking off, this was a couple of months before EST. I overheard my mum and grandma talked about me, like am I doing okay in my studies and then like they hope I can do well in what I do and in the future I can support them you know. That just hit me, the turning point for me.

S: **Okay, anything else to ask?**

P: **How do you feel when you manage your time properly for your day?**

I: It is so satisfying if I manage my time properly. Like since young, sec/ pri sch, ive never managed my time properly I always procrastinate. Like lying down on my bed and watch TikTok and will feel the need to do work, but instead would never do it. For me Im a streamer ah, then like I kinda like to do edits of my videos. So Tmr I would do edits, the next day I would do (procrastinate). But this year, anything on my mind I would do it, and manage it on time. After my work like done the work its quite satisfying, and can have fun like playing games

P,S,B: Okay anything else? Okay thank you!

Appendix C – interview notes by Singh Sakshi

Interviewee: Aditi
Age:17
Gender:Female
Ethnic:Indian
Occupation: Student
Interviewer: Sakshi

Tell me about yourself?

Uh, I am a student studying business with information technology at NYP. I have a normal school life like others. I am an extroverted person and I like to play video games

What are some key characteristics ABOUT yourself?

what I would say my key characteristics are that I am on time like no matter and when I start something I will always finish it on time and will never delay handing up something. I am committed to learning and self-development so that I can consistently achieve better results. I am hardworking and I always try to give my best in whatever I do.

What motivates you to work hard?

What motivates me to work hard is obviously good grades. Seeing my progress and growth encourages me to work harder to be a better version of myself as a student. On the other side, the fear of not doing well in my academics or other commitments drives me to work hard . My friends and family around me also motivate me to work harder by reminding me off my future goals in NYP and life .

Are you able to keep up with your schoolwork while managing your own time?

I would say I am able to and I am not able to, as I can keep up with my schoolwork however it comes at a cost of my losing sleeping and my sanity. HAHHA. In my own time, I watch YouTube and play video games which sometimes does not balance out with my schoolwork.

Is your schedule feeling packed?

Currently my schedule is not packed as my classes are 4 times a week and I have lab submissions every week and 2 big assignments that need to be submitted one month apart .

If yes, how are you able to keep up? If no, why do you think you can't keep up?

I can't keep up because I get easily distracted by surfing on the other apps on my phone and easily bored. This has caused me do my schoolwork kind of a last minute because i don't get the motivation to do it early and get it over with and sometimes I end up forgetting because I procrastinate a lot. I end up choking and getting overwhelmed that's leads to my anxiety which can lead to fidgeting and more .

How do you think you can manage time better?

How I think I can manage my time better is I need to not be distracted and bored since I easily get distracted and bored while studying, I usually tend to listen to music and I keep a limit after 3 or 4 songs I take a 10 minute break this sometimes helps me to be productive and do my work so I can manage my time and finish studying by the allocated time I have for my schedule in my schedule I have like spilt hours like studying time and free time and during study time I get unmotivated to study so this method helps me and makes

me tick something of my time management schedule. I also should start setting reminders when I have assignments coming up.

When was the last time you felt productive?

The last time I felt productive was around 2 weeks ago when I had to submit my assignment 1 I started my assignment roughly 2 weeks before the due date but somehow I still finished it last minute and submitted it 6 hours before the deadline.

Appendix D – interview notes by Pravin

Interviewee: Huzefa
Interviewer: Pravin
Age: 17
Gender: Male
Ethnic: Egyptian
Occupation: Student

Tell me about yourself.

I am a student currently studying maritime business in SP SMA.I am someone who's very inquisitive and very curious. I asked a lot of questions and I always wanted to be in the know. Um, I left a piece , soccer,It's my favorite sport, and in general, sports. In general, my favorite sport is soccer, but in general, whenever I have time, I'll just.Play basketball, badminton, anything, my friends.

What are some characteristics about yourself?

I am quite outgoing. I'm glad to be responsible. I'm disciplined, I am motivated.Uh, and I am as I said earlier, someone who's inquisitive.

What motivates you to work hard?

Doing well for myself and.

Being that me working hard so I guess my future

)Are you able to keep up with your schoolwork while managing your own time?

Yes, I am. I try to set.
A timetable for myself, which I religiously follow, so I know.
When I have to do my work, when I have to again take a break, relax, things like that.

3)When was the last time you felt productive?

It was yesterday because yesterday was my day where I didn't have any lessons in school so I could stay home and.
Wake up later and then start immediately studying, doing my schoolwork.
Setting aside time for some relaxation long as well, so yeah.
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4)What kind of emotions do you feel when you have to manage your time well for that day?

I feel happy and I feel part of myself that I managed to do it.

5)How do you feel if you don't manage your time well for the?

Day.
Sad and disappointed that I didn't manage to reach my target.