

CONCENTRA: MOBILE APPLICATION AND PRODUCT TO MANAGE DISTRACTIONS

A PROJECT REPORT

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF

MASTER OF DESIGN

Submitted by

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CANDIDATE'S DECLARATION

I, Sreeram S P, Roll No. - 2K21/MDVC/14, student of M.Des (Department of Design), hereby declare that the project Dissertation titled "Concentra" which is submitted by me to the Department of Design, Delhi Technological University, Delhi in partial fulfilment of the requirement for the award off degree of Master of Design, is original and not copied from any source without proper citation. This work has not previously formed the basis for the award of any Degree, Diploma Associateship, Fellowship or other similar title recognition.

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CERTIFICATE

I hereby certify that the Project Dissertation titled "Concentra" which is submitted by Sreeram S P, Roll No's - 2K21/MDVC/14, Department of Design, Delhi Technological University, Delhi in partial fulfilment of the requirement for the award of the degree of Master of Design, is a record of the project work carried out by the students under my supervision. To the best of my knowledge this work has not been submitted in part or full for any Degree or Diploma to this University or elsewhere.

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Place : Delhi

Date : 24/04/2023

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ABSTRACT

“Cell phones are distracting, pulling our attention away from our current tasks and activities. The mere presence of the phones, even when they are turned off and we are consciously focusing our attention on another task, is enough to reduce our thinking capacity.”

The project Concentra aims to develop a mobile application and a companion product that will help users manage their distractions and streamline their lives. The application will provide users with tools to manage their workday more efficiently, reduce stress, and increase productivity. The companion product will work seamlessly with the application, providing users with a physical representation of their progress and achievements.

The mobile application will feature a range of features, including customizable work sessions, distraction-blocking tools, and progress tracking. Users will be able to set goals and monitor their progress, while also being reminded to take breaks and recharge. The companion product will provide users with a physical representation of their progress, helping them stay motivated and focused on their goals.

Overall, this project will help users simplify their day and streamline their lives by providing them with the tools they need to manage their distractions and stay focused. The mobile application and companion product will be designed with user experience and engagement in mind, ensuring that users are able to achieve their goals and enjoy a more productive, stress-free workday.

CONTENTS

Candidate's Declaration	i
Certificate	ii
Acknowledgement	iii
Abstract	iv
Content	v
List of Figures	vii
List of Symbols, Abbreviations	viii
1. INTRODUCTION	1
1.1 About the Project	1
1.2 Research Goal	1
1.3 Problem Statement	1
1.4 Design Process	2
1.5 Project Timeline	2
1.6 Target Audience	2
2. USER RESEARCH	3
2.1 Primary Research	3
2.1.1 Survey Insights	3
2.1.2 Interview Insights	3
2.1.3 Interview Analysis	4
2.2 Empathy Mapping	4
2.3 Secondary Research	5
2.4 User Interview	5
2.5 Pain Points	5
2.6 User Persona	5
2.7 User Scenario	6

2.8 Iceberg Analysis	8
2.9 Iceberg Insights	9
3. COMPETITIVE RESEARCH	10
3.1 Comparison	10
4. PRODUCT DESIGN AND PROTOTYPING	11
4.1 Product Brief	11
4.2 Ideations	11
4.3 Product Features	14
4.4 Product Visualisation	14
4.5 High Fidelity Product Screens	15
4.6 Information Architecture	16
4.7 Task Flow	17
5. UI CONCEPTUALISATION AND PROTOTYPING	19
5.1. Visual Library	19
5.2. High Fidelity Mobile Screens	20
6. RESULTS AND DISCUSSION	23
7. CONCLUSION	24
References	25

List of Figures

Fig 2.1	Empathy Mapping	4
Fig 2.2	User Persona	6
Fig 2.3	User Scenario 1	7
Fig 2.4	User Scenario 2	7
Fig 3.1	Existing Solutions	10
Fig 4.1	Ideation Chart	11
Fig 4.2	Laptop Application	12
Fig 4.3	Sand Clock Device	12
Fig 4.4	Interactive Board	13
Fig 4.5	Clip-on Device	13
Fig 4.6	Tabletop Device	13
Fig 4.7	Product Features	14
Fig 4.8	Product Visualisation	14
Fig 4.9	Breath Session and Thought log screens	15
Fig 4.10	Thought Analysis and Break reminder screens	16
Fig 4.11	Information Architecture	17
Fig 4.12	Task Flow	18
Fig 4.13	Task Flow	18
Fig 5.1	Visual Library	19
Fig 5.2	High Fidelity Mobile screens	20
Fig 5.3	Home and thought log screens	21
Fig 5.4	Statistics, Settings and Notification screens	22

List of Symbols, Abbreviations

1. UI - User Interface	1
2. UX - User Experience	1
3. UEM - User Experience Mapping	4
4. Fig - Figure	4
5. IT - Information Technology	5
6. App - Application	15
7. DNA - Deoxyribonucleic acid	17
8. Eg. - Example	18

Chapter 1

INTRODUCTION

1.1 About the Project

The project Concentra, a user-friendly product that helps students and professionals minimize mobile and external distractions while studying or working. The product consists of a mobile app that tracks usage patterns and provides tools like focus music and a pomodoro timer, and a physical device that blocks incoming notifications and noise. The UI/UX design focuses on functionality and ease of use, and the project involves research, prototyping, and user testing. The goal is to provide an effective solution to digital addiction and help users stay focused and productive.

1.2 Research Goal

Design user-friendly product that addresses digital distractions and improves focus and productivity for students and working professionals. Conduct research, analysis, prototyping, and user testing to ensure an effective solution.

1.3 Problem Statement

The increasing use of mobile devices and external factors such as noise and notifications have resulted in decreased focus and productivity among students and working professionals. The inability to stay focused on tasks leads to procrastination, missed deadlines, and poor academic or professional performance. The current market lacks an effective and user-friendly product to help individuals overcome these distractions and improve their focus and productivity.

1.4 Design Process

The design flow includes understanding the user through processes like user research, user interview, and competitive analysis, then defining the problem through user personas, empathy map and user journey map. This process is followed by ideations by creating different product concepts with features, scenarios, task flow and information architecture. The next step being designing includes visual design, wireframing, High fidelity designs and prototyping. The final step is testing, which includes collecting feedbacks, drawing conclusions out of it and studying about future concepts.

1.5 Project Timeline

The design is completed in 12 weeks which includes all the above mentioned steps in the design process. The understanding phase took 1-3 weeks which included user research, user interviews and competitive analysis. The define phase took me to complete within 3rd - 5th which included user personas, empathy map and user journey mapping. 6th - 7th week was spent for ideation which included creating user flow, listing out product features and making information architecture. 8th - 9th week was taken to make the wireframes, high fidelity screens, and product prototyping. The 10th - 12th week was spent for testing which was collecting feedbacks, drawing conclusions out of it and studying about future concepts.

1.6 Target Audience

The focus users for the project concentra are mainly the students of age group 15-30 years and also the working professionals who are mainly using mobile phones for watching classes, work, social media, etc. thereby getting distracted and not doing the activities, important works or exercises as per decided earlier.

Chapter 2

USER RESEARCH

2.1 Primary Research

The research included 60 participants from different technical backgrounds among which 32 were students and 28 working professionals. It included 36 males and 24 females.

2.1.1 Survey Insights

- 75% individuals felt social media as major distraction caused while studying
- 64% individuals felt mobile notifications pop-ups as the major cause of distraction
- 82% individuals prefers to see social media notification in break time
- 91% prefer family/ office calls while studying /working
- 63% prefer WhatsApp notification while working
- 95% felt silencing phone with preferred notifications will help them focus

2.1.2 Interview Insights

The interview of 7 participants where taken, out of which there were 4 students and 3 working professionals (work from home).

Their insights are as follows:

- Prefer to keep phone on silent mode but cant do this because they often forgets to turn it back to ringer mode
- Start some activities for mental focus but not able to continue for long because of procrastination.

- Writing distracting thoughts immediately helps in stopping the chain of thoughts. It can be reviewed after work
- Meditation, self-rewarding, post its, schedule planning
- and keeping phones away helps me to focus at work

2.1.3 Interview Analysis

The major distraction included mobile and thought chain. Based on the insights after interviews, I categorised them under internal and external distraction. Wherein, internal distractions includes mobile distraction, social media distractions, environment distractions and external distractions includes emotional distractions and mental distractions.

2.2 Empathy Mapping

User Experience Mapping (UEM), is a strong approach for determining what motivates your consumers, including their needs, hesitations and worries. An empathy map is a collaborative graphic that illustrates what we know about a certain user group. An empathy map helps UX teams unite on a deep knowledge of end users by visualising user attitudes and actions.

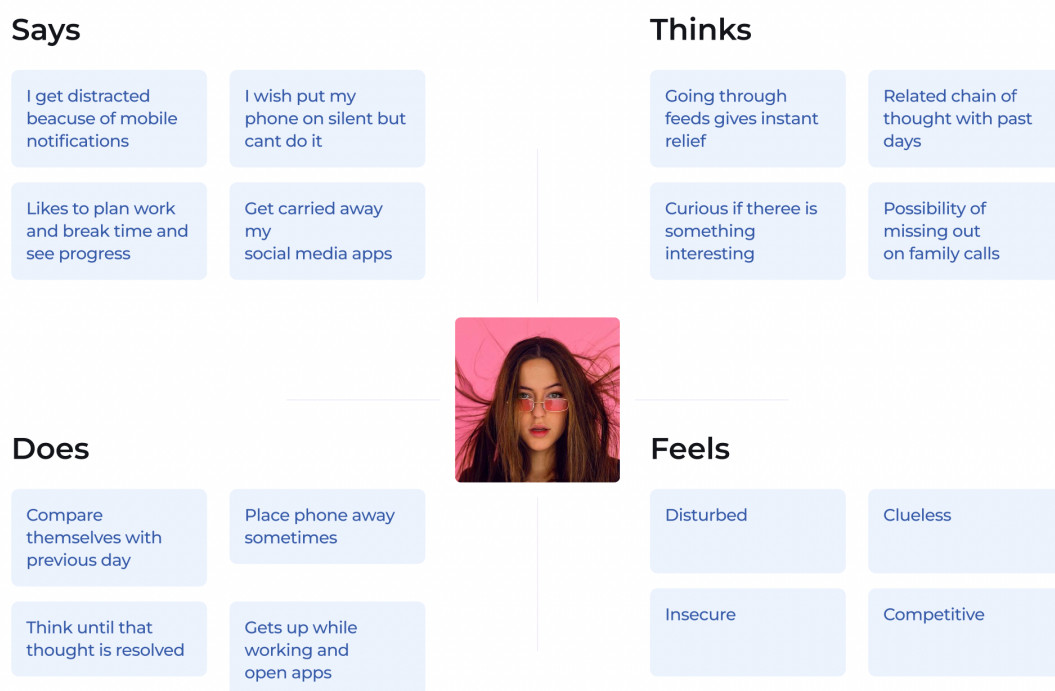


Fig. 2.1 Empathy Mapping

2.3 Secondary Research

The research says that work technique has to be followed by Pomodoro Technique (which is a time management method based on 25 minutes stretch of focussed work broken by 5 minutes break, longer breaks typically 15-30 minutes are taken after 4 consecutive work intervals). The focus time has to be 25 minutes to regain the focus due to internal distraction. The mobile usage time is mainly 4-5minutes after every 15 minutes. The research found that visuals helps to maintain focus, effective break patterns help in productivity and that the social media is the main distraction among individuals.

2.4 User Interviews

Interviews of multiple people including Vaishnav (Product Designer at Pune) and Resmika Manohar (Working from home in an IT company at Ahmedabad) was taken to know their usage of mobile phones and the rate of addiction to it, hence distracting them from doing other important works.

2.5 Pain Points

- The users often forgets to switch mobile profile to ringer mode after studying
- Break session after classes getting extended
- Excessive use of social media applications keeps distraction from doing normal/ essential works
- Generally, people often regrets over wasted time
- People are getting carried away with multiple thoughts while working causing distractions
- The users aren't always putting the mobile phones in silent mode
- People are also getting carried away with frequent mobile notifications

2.6 User Persona

A user persona is a fictitious figure based on the current client or user, whose aims and traits represent the requirements of a broader group of users that you would like to cater to.

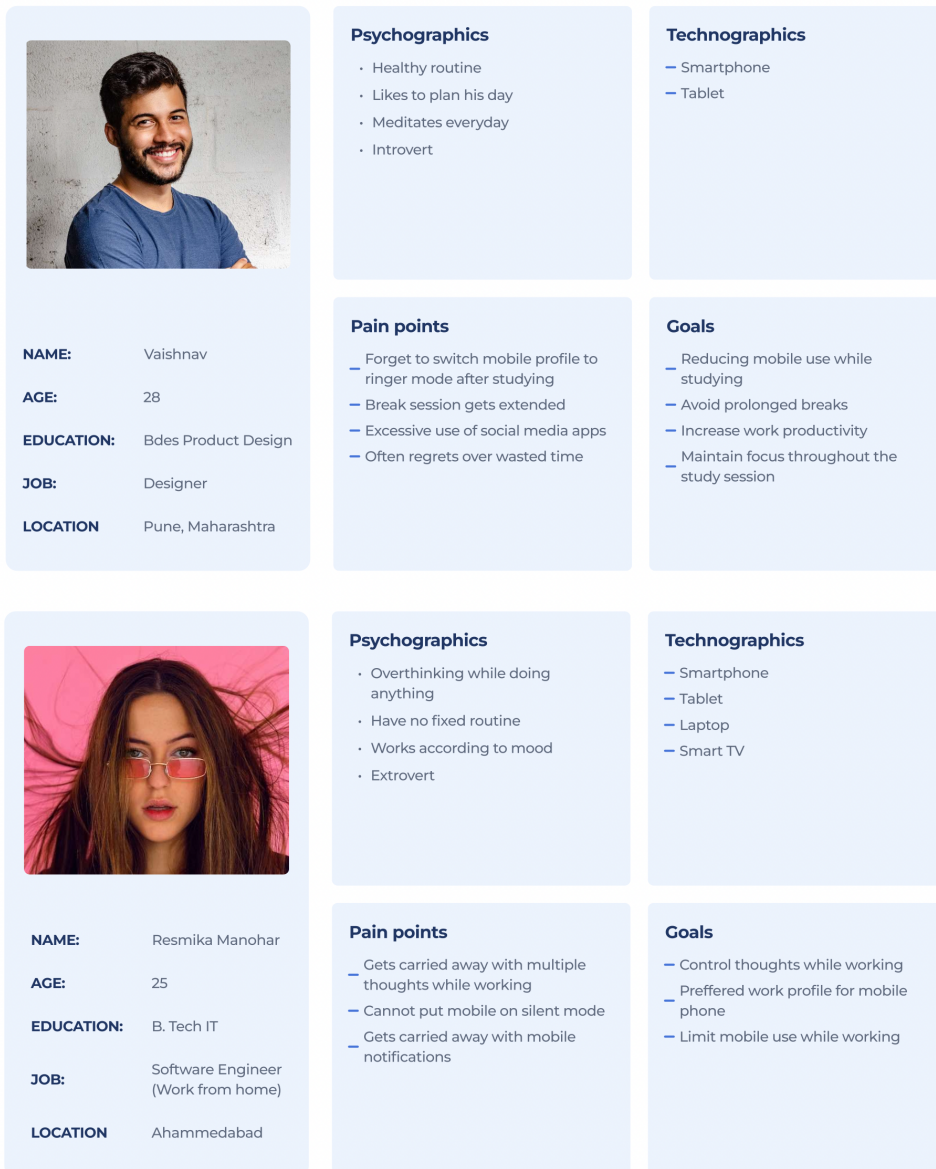


Fig. 2.2 User Persona

2.7 User Scenario

A user scenario was created to understand what our ideal user would have in their mind.

User 1:

“As a student, the current problem is that while I start studying, after some time, on hearing a mobile notification beep, and frequent phone pings, I will get up and see all the notifications, rests on the bed and opens other . applications, which leads to the flow of studying and forgetting where I have stopped last time.”

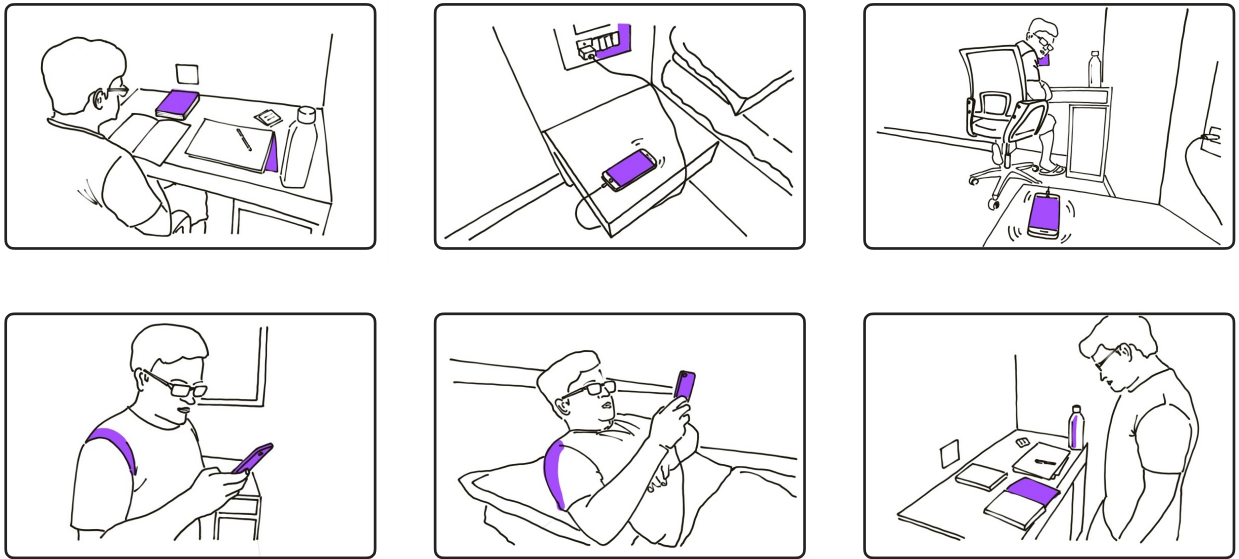


Fig. 2.3 User Scenario 1

User 2:

“During my work, I thought of cycling in the evening, but postponed to the next day ignoring the mobile activity reminders and gets carried away with other application and after a week I will realise how fast time passed and regrets over it.”

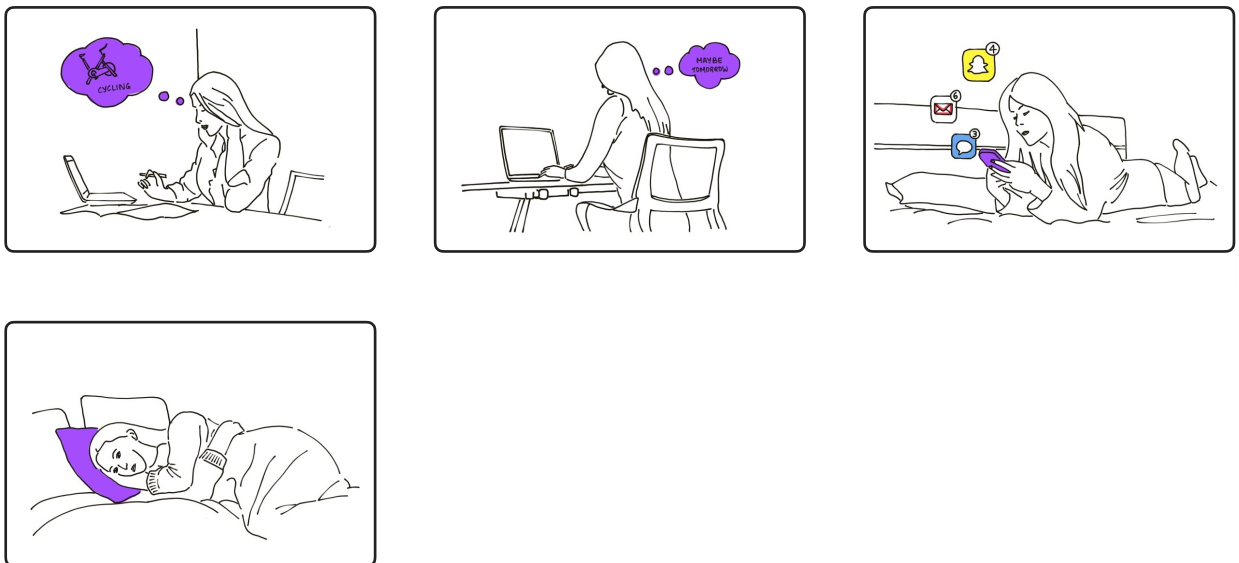


Fig. 2.4 User Scenario 2

2.8 Iceberg Analysis

The research analysis is done using iceberg model analysis where the 3 events and their corresponding patterns, structures and mental model are as mentioned below:

Event 1: Problems in beginning new activity / hobby or managing time for it from daily routine

Patterns	Structures	Mental Model
<ul style="list-style-type: none"> Procrastination in beginning the activity or hobby Mental fatigue due to work Ignoring the mobile reminders / alarms Lack of self determination 	<ul style="list-style-type: none"> Finding excuses or not having enough motivation Excess screen time while learning and working User can easily ignore reminders or get distracted by other notifications. Getting carried away with other activities that comfort more (Eg: Watching movies, series, etc) 	<ul style="list-style-type: none"> Feeling that it would be positively done on other day One has done enough for the day The ease of control user has in digital space Wanting to see the progress so that it can be continued

Event 2: Difficulties in focusing while studying / working (external distraction)

Patterns	Structures	Mental Model
<ul style="list-style-type: none"> Monotonous work Mobile notification or use in between the work Prolonged breaks in between work Daily rituals / responsibilities (WFH) 	<ul style="list-style-type: none"> Reading or sitting for a prolonged time Social media presence on different platform Mix of personal and professional life Doing tasks that comfort more (Eg.chatting, social media, YouTube 	<ul style="list-style-type: none"> Need to complete work Perception that every notification is important Working women are expected to manage everything Feeling that everything is under control

Event 3: Internal (Emotional and Mental) distractions while working

Patterns	Structures	Mental Model
<ul style="list-style-type: none">· Urge to do see/do something else· Getting lost in chain of thoughts· Worried about self/feeling alone· Personal habits while working	<ul style="list-style-type: none">· Doing things with no interests· Past incidence or upcoming events· Lack of good company· Unwilling to share or spend quality time	<ul style="list-style-type: none">· Break is motivation· Think until that thought is completely resolved· Social stigma (what will people say)· Wanting to see the activity progress for its continuance

2.9 Iceberg Insights

- For beginning any activity, the mental model of ease of comfort the user has, seems to affect a lot.
- The user willing to see the progress of activity or hobby acts like instant motivation for its continuance.
- The perception of every notification is important often leads to mobile distraction while working.
- The model of having everything in control, encourage users to do tasks that are more comforting, leading to prolonged breaks.
- For multiple thoughts that come to mind while working, the user has common behaviour of thinking it till that thought is completely resolved.

Chapter 3

COMPETITIVE RESEARCH

3.1 Comparison

Currently, there are no mobile applications that can help in managing mobile and internal distractions. For this, I went through some of the digital and emotional wellbeing application and their features. The comparison with mentioning of pros and cons of existing solutions, that is the digital wellbeing which includes applications such as Be Focussed, Google Morph and Flip D, and Emotional wellbeing which includes CBT Companion, Daylio and Wysa are as mentioned in Fig (3.1).

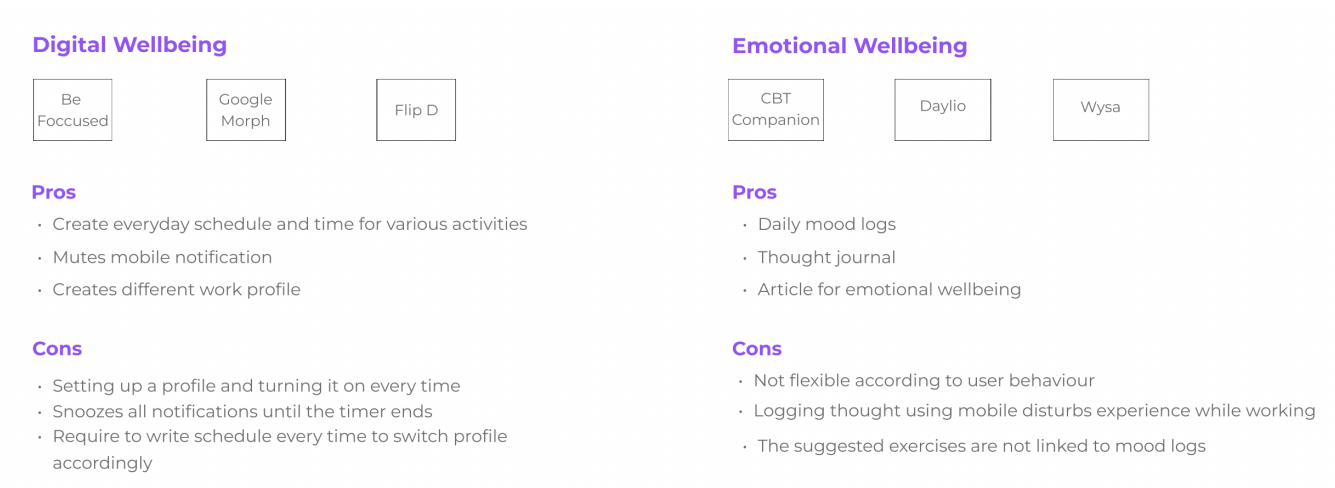


Fig. 3.1 Existing Solutions

Chapter 4

PRODUCT DESIGN AND PROTOTYPING

4.1 Product brief

To design a product / interface for students and working professionals to focus while working and increase productivity by managing the digital and mental distraction faced by them

4.2 Ideations

Ideations phase for making the project concentra is as shown below Fig. (4.1):

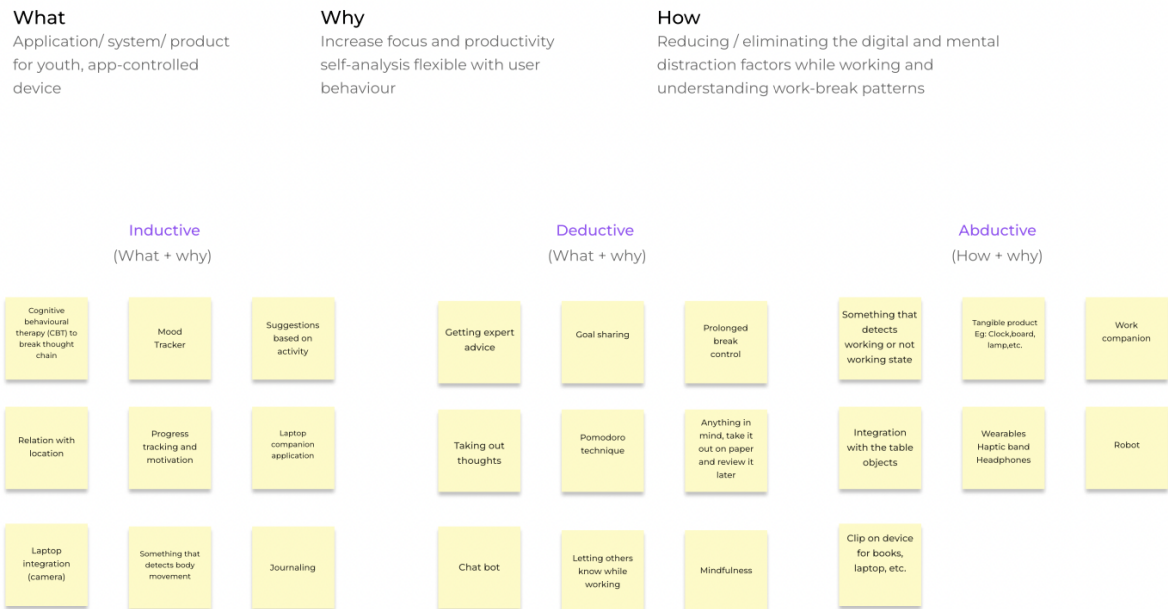


Fig. 4.1 Ideation chart

Concept #1

The concept was to create a well being application in laptop that tracks user activity while working and give feedbacks. The problem with the concept is that this again increases the screen time, which is not meant to be a proper solution for avoiding distractions.

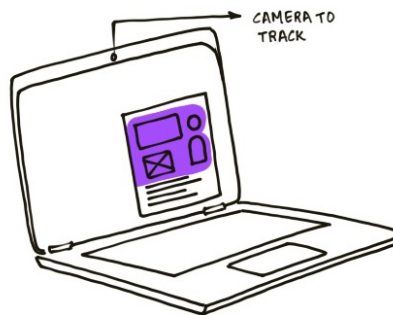


Fig. 4.2 Laptop Application

Concept #2

The concept was to create a sand clock like device, which is a mobile application controlled sand clock for the realisation of goals and daily time spend. The reason for not selecting the device was that, it did not have a good visually pleasing appearance.

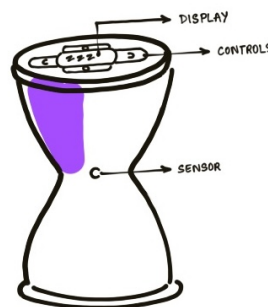


Fig. 4.3 Sand Clock Device

Concept #3

The concept was to make an interactive board that tracks user activities and work-break patterns, but it had the feeling of an outdated design and that it took a lot of useful space and hence discarded the thought of such a design.

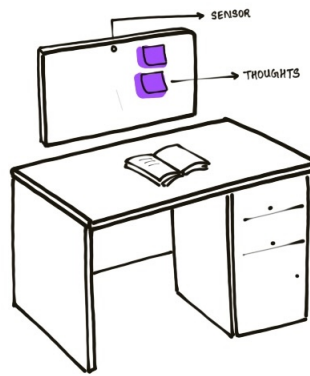


Fig. 4.4 Interactive Board

Concept #4

The concept was to create a portable device to record thoughts and mute notifications, but then, it was found to be not much applicable in real life and no one would like to carry along an extra object wherever they travel.

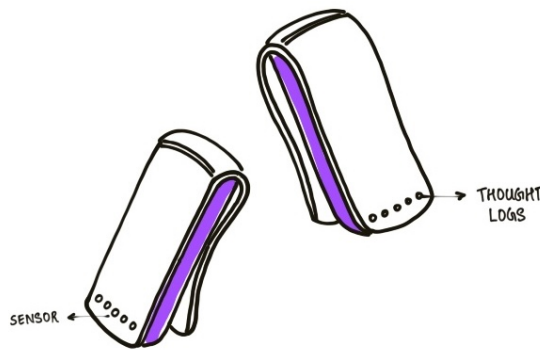


Fig. 4.5 Clip-on Device

Concept #5

The fifth and final concept was to make a sensor based device that manages distractions when the user begins to work. This design was found to be more efficient compared to the rest of the designs, by providing sensors

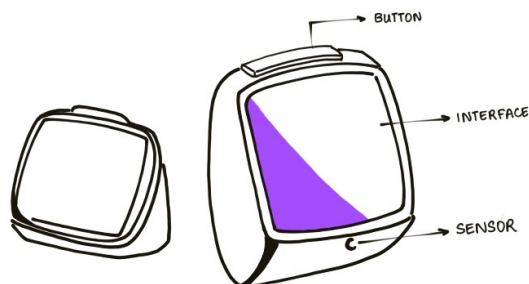


Fig. 4.6 Tabletop Device

4.3 Product Features

The product has an auto switch profile, i.e., it automatically switches mobile profile when user sits in front of the device Fig (4.7 a). The thought logs records emotional and distracting thoughts Fig (4.7 b). The application also suggests productive breaks and exercise recommendations Fig (4.7 c). Analysis of emotional and random thoughts and notifications in the break is shown in Fig (4.7 d)

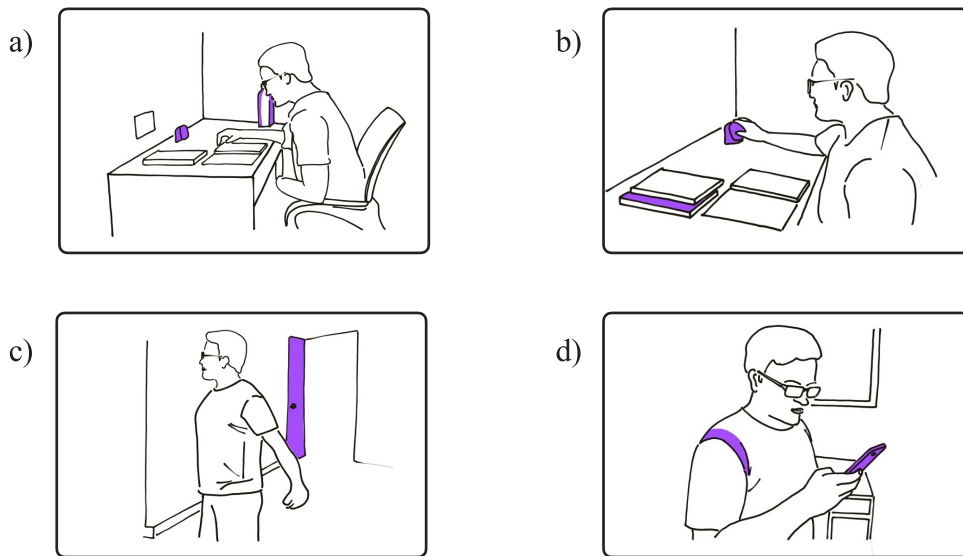


Fig. 4.7 Product Features

4.4 Product Visualisation



Fig. 4.8 Product Visualisation

4.5 High Fidelity Product Screens

UI refers to the screens, buttons, toggles, icons, and other visual elements that you interact with when using a website, app, or other electronic device. UX refers to the entire interaction you have with a product, including how you feel about the interaction.



Fig. 4.9 Breath Session and thought log screens

Thought Analysis



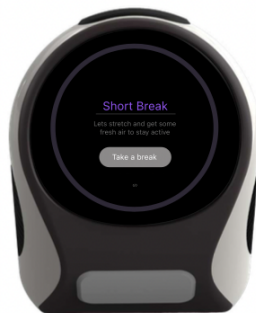
Random Thought
The random thoughts are stored in the mobile phone



Emotional Thoughts
The device recommends simple exercises that can be done along with the device.

Break Reminder

The Device recommends a break if the session is getting extended.



Activities Overview

Session overview when break is taken.



Fig. 4.10 Thought Analysis and Break reminder Screens

4.6 Information Architecture

An information architecture is a document/ flowchart that provides an operational map to how a product acts and functions work for users. It's akin to a blueprint for digital products, and it displays pages, content, interactions, and behaviours for the entire product.



Fig. 4.11 Information Architecture

4.7 Task Flow

A task flow is a diagram that represents a user's journey through a specific task. You can think of task flows as the DNA of content experience. Instead of viewing a single piece of content in isolation, a task flow allows you to consider how one piece of content connects to the next.

Task 1 : Record random thought (mental distraction) faced while working and review them in break time on the mobile phone.

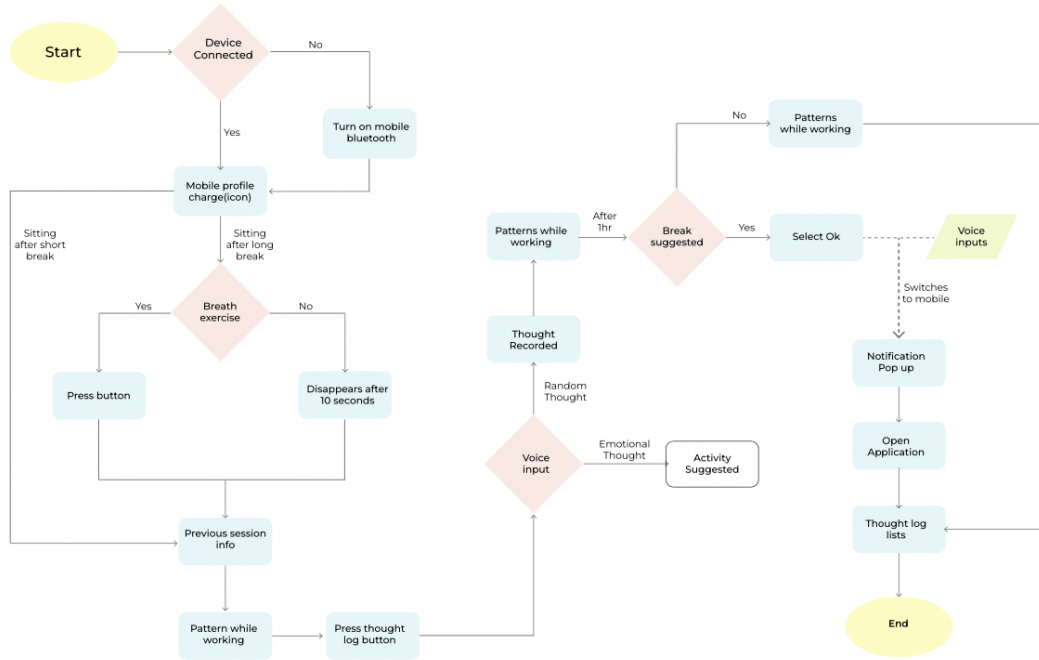


Fig. 4.12 Task Flow 1

Task 2 : Record emotional thoughts (Eg. Feeling low and heavy eyes) faced while working and select the activity from device suggestions.

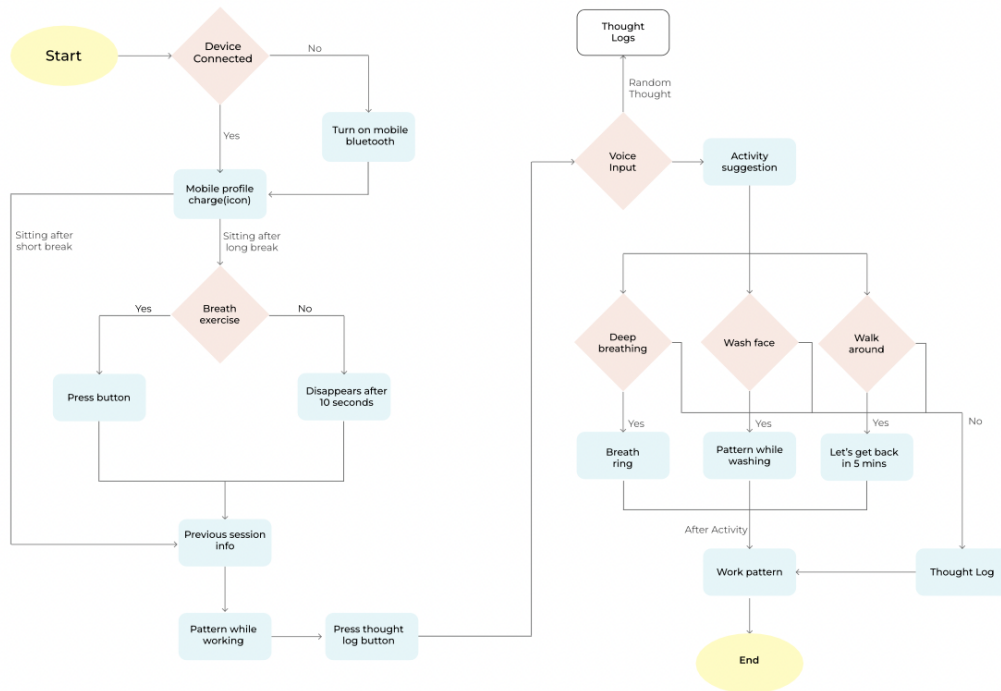


Fig. 4.13 Task Flow 2

Chapter 5

UI CONCEPTUALISATION AND PROTOTYPING

5.1 Visual Library

The primary and secondary colour palette selected for the design of the application, as well as the fonts and buttons used, the logo for the application and icons used are as shown below (Fig. 5.1):

Colours

Primary



#9B52F8 #C4A8E7 #F3F3F3

Since the application is about focus and reducing distraction, I choose blue as theme colour which symbolise serenity and stability.

Secondary



#E1F9E3 #E1F3F9 #DEF3F2 #F9F1E1

Colours for representation of emotional & random thought logs, intrusion time and productive activities.

Fonts

Headline
DM Sans Bold

Subheading
DM Sans Medium

Bodyline
DM Sans Regular

Buttons

 Primary CTA

 Secondary CTA

 Disabled State

Application Logo



Icons

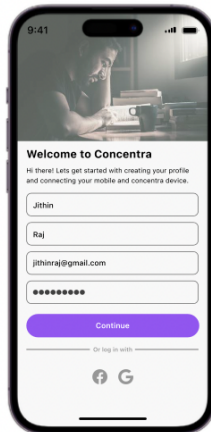


Fig. 5.1 Visual Library

5.2 High Fidelity Mobile Screens



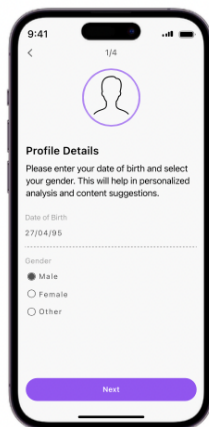
1. Splash Screen



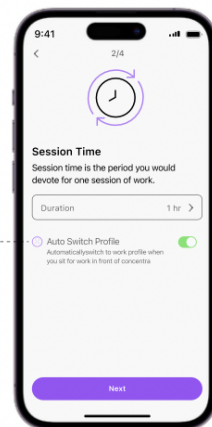
2. Sign In/ Log In



3. Device Connection

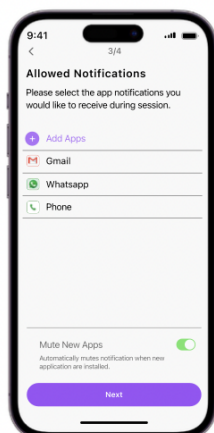


4. Profile details
Pairing Concentra using bluetooth by entering the code.

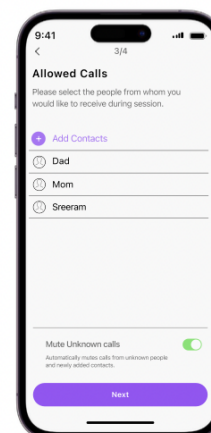


5. Session Time
Setting session time for 'auto switch profile' mode

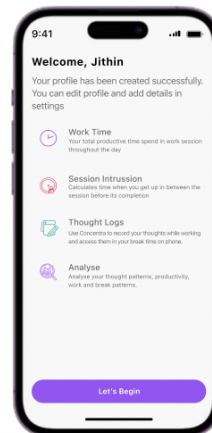
Automatically switches profile when users begin to work



6. Allowed Notification
Selecting the apps to deliver notification in work profile.



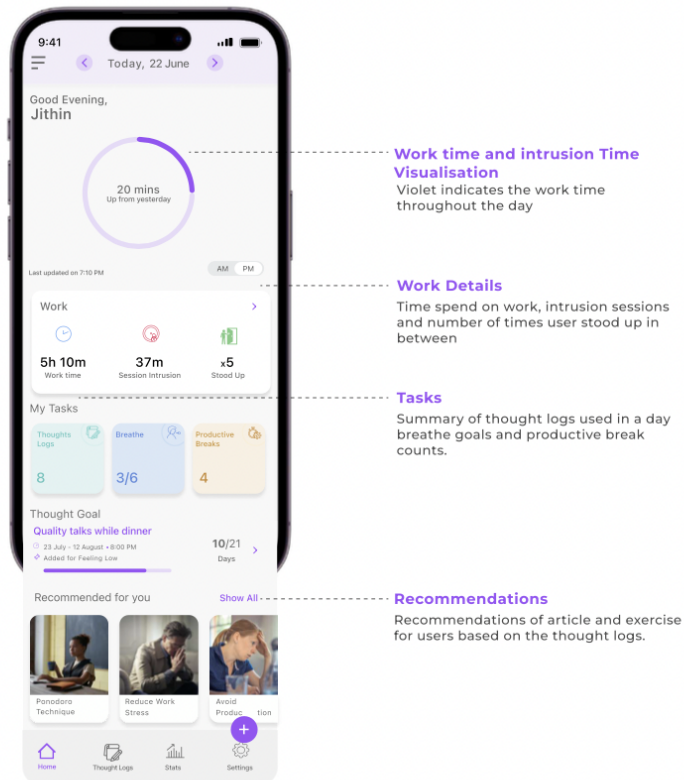
7. Allowed Calls
Allow calls only from selected people while working



8. Features overview
Work and intrusion time and thought log features

Fig. 5.2 High Fidelity Mobile Screens

Home screen



Thought logs

All thoughts are collected in thought logs. Users can edit or take exercise suggestion.

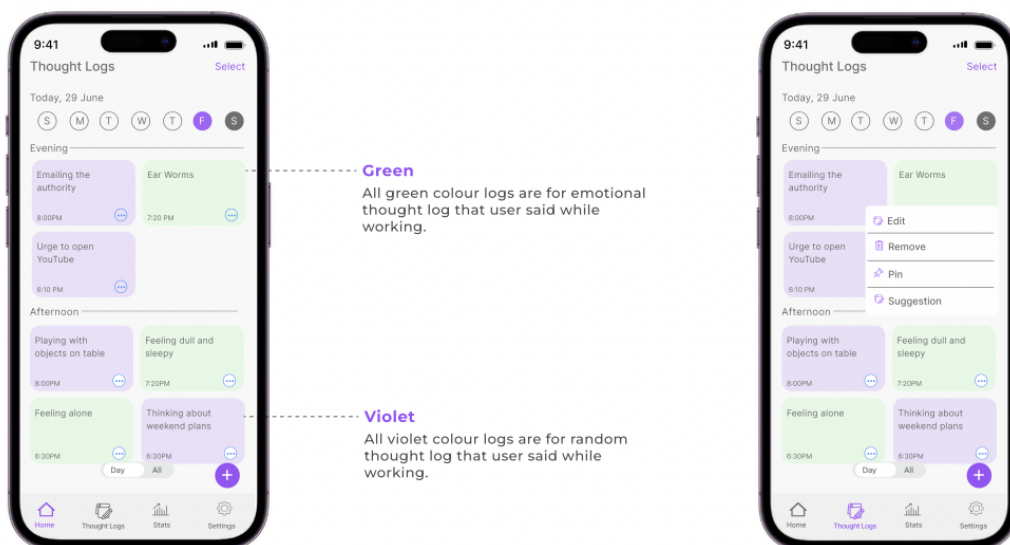
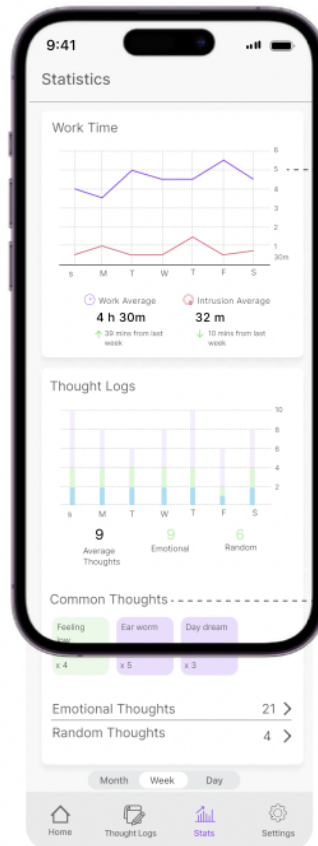


Fig. 5.3 Home and Thought log Screens

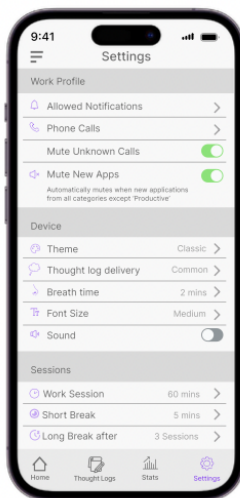
Statistics

Work time and thought static comparisons over days and weeks



Average work and intrusion
Daily comparison and average of intrusion time and work time

Thought Pattern
Emotional and random thoughts over the week and thought patterns.



12. Settings

Settings for work profile, device and sessions



13. Notifications

Collected thoughts appear as notification in break.

Fig. 5.4 Statistics, Settings and Notification Screens

Chapter 6

RESULTS AND DISCUSSION

Results:

The project resulted in the development of a mobile application that incorporates mobile tracking and distraction-blocking technologies to help users stay focused and productive. The app uses a combination of strategies, such as thought recording and task listing, to encourage users to stay engaged and motivated. The app also includes features such as time tracking, goal setting, and progress tracking, enabling users to monitor their productivity and progress over time.

The Users found the app easy to use, with a clean and intuitive interface that allowed them to navigate through the app effortlessly.

Discussion:

The project successfully addressed the problem of digital distractions by providing a user-friendly and effective solution. The app's combination of mobile tracking and distraction-blocking technologies provided users with a powerful tool to combat digital addiction and improve their focus and productivity.

However, there were some limitations to the project. For instance, the app's effectiveness depended on users' willingness to use it consistently and adhere to the app's recommendations. Some users also reported experiencing some technical issues, such as bugs and glitches, which affected their user experience. These issues need to be addressed to ensure that the app is user-friendly and seamless.

In conclusion, the project successfully developed a user-friendly product that addresses digital distractions and improves focus and productivity for students and working professionals. The app's combination of mobile tracking and distraction-blocking technologies, along with gamification elements, proved to be an effective solution to the problem of digital distractions. Further testing and refinement of the app will be necessary to ensure its effectiveness and user-friendliness.

Chapter 7

CONCLUSION

The project aimed to design and develop a product that helps students and working professionals improve their focus and productivity by addressing digital distractions. The resulting mobile application successfully combined mobile tracking and distraction-blocking technologies, along with gamification elements, to provide users with an effective tool to combat digital addiction.

The testing of the app by a group of users showed positive results, with users reporting an improvement in their focus and productivity. However, some limitations were identified, such as the app's dependence on user consistency and technical issues affecting user experience. These issues need to be addressed to ensure that the app is user-friendly and effective.

Overall, the project successfully developed a user-friendly solution to the problem of digital distractions. Further refinement and testing of the app will be necessary to ensure its effectiveness and user-friendliness. The app has the potential to significantly improve users' academic and professional performance by helping them stay focused and productive in an increasingly distracting digital world.

Reference

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