

# 'RSA' Project – Sleep Matters

A More Detailed Document of  
the Processes not Relating to  
the Programming/Building  
Processes

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## The Brief

*“Design a product, service or system to improve health and wellbeing by encouraging and/or enabling better sleep”.*

## Initial Ideas (From the Lesson)

### Introduction

After reading through all of the briefs available to myself, a task set to myself in one of the lectures was to think of as many ideas as I possibly could for a specific brief (feasible or not feasible). The ideas I thought of in relation to the ‘Sleep Matters’ brief can be viewed below.

### The Ideas Regarding the ‘Sleep Matters’

- An arm which would have come out of the user’s phone or any other item which could have placed a cage over any work to force the user to go to sleep
- A type of bed which would have massaged the user to help them relax and not to focus on any anxieties/worries
- A type of system which would have switched off all devices, consequently leaving the user with nothing to keep them occupied and this therefore would have encouraged them to go to sleep
- A type of bed which would have pulled the user into it, depending on what time they had set it to do this
- A house alarm which would have alerted the user to the fact that they would have had a number of minutes before everything switched off (30 minutes prior to this happening)

## Research from the Brief and Toolkit Provided

### Introduction

To understand the topic fully, I then continued to look at the background information provided by the brief as well as viewing the resources available in the toolkit. This research can be seen below.

### The Collected Research

#### Key Points from the Brief

- Nearly 50% of adults in the UK suffer from poor sleep
- Sleep is important for long and healthy lives
- Poor sleep can affect our longer-term mental and physical health
- Constant poor sleep can cause obesity, heart disease and diabetes as well as other serious health issues
- Poor sleep shortens your life expectancy
- Lots of medical conditions can contribute to poor sleep such as depression and asthma
- Could inform people about the sleep process to encourage them to take sleep more seriously (RSA, 2017)

#### Key Points from the Toolkit

- 6461 people took part in a survey (Philips, 2017)
- 92% of global adults say sleep is crucial to their overall health and wellbeing (Philips, 2017)
- 74% global adults say sleep is beneficial to their marriage (Philips, 2017)
- 74% of global adults say sleep is something they look forward to (Philips, 2017)
- 91% of Americans also say this (Philips, 2017)
- 82% of global adults have a bad experience after having a bad night of sleep (Philips, 2017)
- Adults in Japan (86%) and France (87%) are most likely to have a bad experience in relation to the point above (Philips, 2017)
- 68% of global adults believe their lives would be better if they managed to get a good night's sleep every night (Philips, 2017)
- 84% of global adults say that sleep is not as important as things such as family time (Philips, 2017)
- 62% of global adults would say they are good sleepers (Philips, 2017)
- 28% of global adults say sleep is not a priority (Philips, 2017)
- 24% of global adults show they have more worry over their job than sleep (Philips, 2017)
- 73% of global adults have used strategies to help them to get to sleep (Philips, 2017)
- 60% say they attempt to abide by a routine (Philips, 2017)
- Highest strategy is reading a book (29%) (Philips, 2017)
- Lowest strategy is using a sleep apnea device (3%) (Philips, 2017)
- 47% of global adults do say that they look at a screen before going to bed (Lee-Chiong, n.d.) (Philips, 2017)

## Initial Ideas/Sketches (After Analysing the Brief in More Detail)

### Initial Ideas

#### Introduction

After gaining a concrete understanding of the type of project I was involving myself in, I then started to think of some more ideas which would have been feasible in the time I had been given. These can be viewed below.

#### The Created Ideas

##### *Applications Ideas*

- An application which could have informed users of the effects of sleep and how they could have prevented themselves from becoming ill in the long term
- A section on the application which would have relaxed the user
- Alerts of the application which would have reminded the user that they would have been getting nearer to their bedtime
- There could have been a relaxing music playlist
- There could have been relaxing videos e.g. autumn leaves blowing in the wind
- An advice section on types of techniques to help the user sleep

##### *Other Ideas*

- A type of system which could have been implemented into computers/laptops which would have disconnected from 'Wi-Fi' and closed down applications the user would have been utilising for work, etc.
- A website which would have allowed the user to print off activities to be completed before bedtime that wouldn't have involved a screen e.g. reading, colouring books, dot-to-dot books, etc.

#### The Chosen Idea from the Initial Ideas

I then made a decision to make an application based around sleep, in order to improve the health and wellbeing of those who would have experienced poor sleep. With regards to the 'Other' section above, the system could have become frustrating for users because they may have been working on something and then have lost any unsaved work. Regarding the printout activities idea, the disadvantage was that there could have been printing costs.

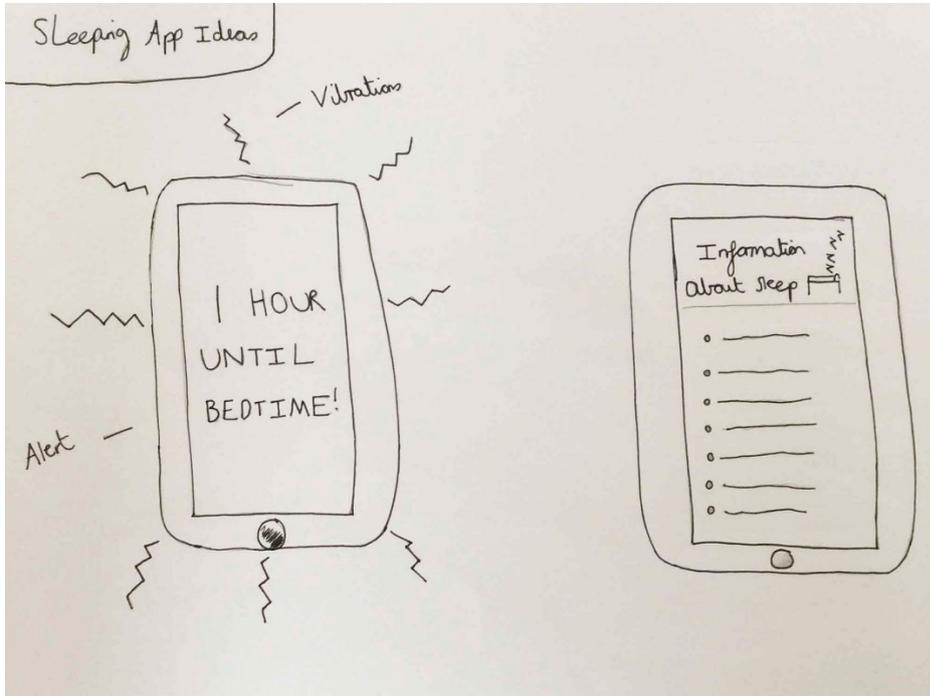
## Sketches of the Chosen Idea

### Introduction

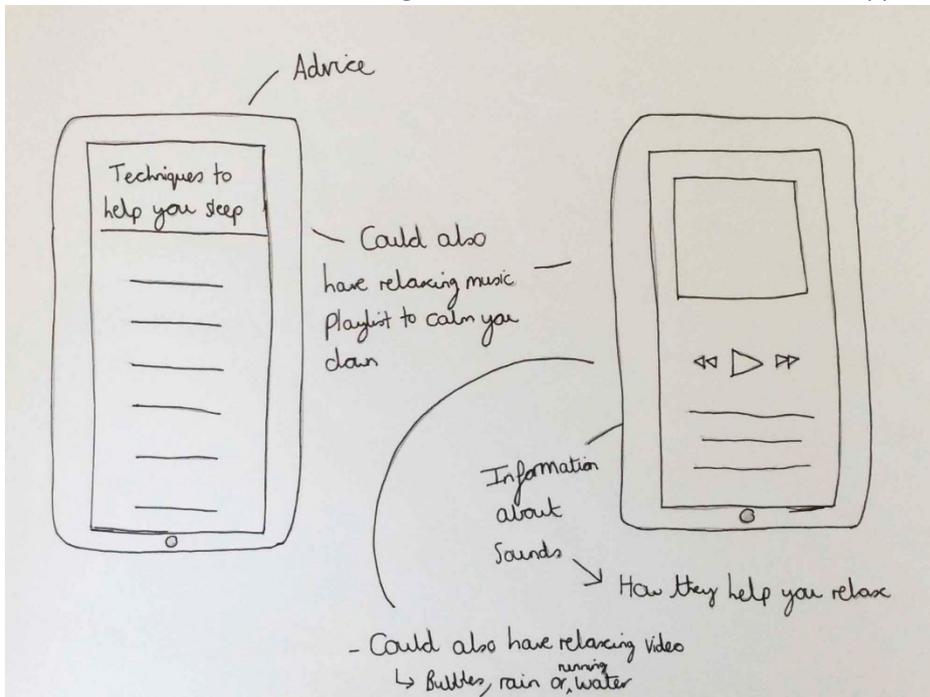
I produced the sketches below based on some of the ideas I had thought of for the application to help myself visualise how they would have appeared. The first sketch focused on the alerts and information sections and the second focused on the advice and the relaxing sounds/videos sections.

### The Sketches

#### Sketch 1 – The Alerts and Information Sections Ideas of the Application



#### Sketch 2 – The Advice and Relaxing Sounds/Videos Sections Ideas of the Application



## My Inspiration

### Introduction

After coming to a final decision of what I wanted to create, as stated before, I then undertook some research on the types of applications which were already available to assist sleep. These can be viewed below.

### The Collected Research

#### 'Sleep Cycle'

##### *Interface and logo*



(Sleep Cycle, n.d.) (Sleep Cycle, n.d.)

'Sleep Cycle' was an application that analysed user sleep patterns and woke them when in their lightest sleep phase (Nichols, 2017). From visual research, I understood that the interface was simplistic but effective and not many colours were being used.

## 'Noisli'

### Interface Design and Logo



(Pinterest, n.d.) (Barenbrug, 2014) (AngelList, n.d.)

'Noisli' was an application that helped the user relax through the use of peaceful sounds and colours and from undertaking some interface research, I understood that mostly imagery was used rather than words and the style again was simplistic like 'Sleep Cycle' (Nichols, 2017).

## 'Apple's' 'Clock'



(Renkman, 2014)

This had a bedtime feature which could have provided the user with gentle reminders of when it would have been getting nearer to their bed time and it tracked their sleep. It also linked to the 'Apple' 'Health' app which provided users with data about their sleep (Hughes, 2016).

'Calm'



(Google Play, 2017)

This application focused more on mindfulness and meditation to calm users down before going to bed (Allen, 2017).

'Sleep Better'



(Google Play, 2017)

This application tracked users' sleep duration, sleep cycle and sleep efficiency and allowed them to enter daily habits to gauge and help them identify what was best for them (Allen, 2017).

## The Confirmed Idea

### The Different Aspects of the Application

My idea was of an application which would have been divided into two sections. There would have been a daytime section which would have provided information about the effects of sleep and also provided advice. There would have been a quiz as well to test a user's knowledge of information obtained from the other sections and depending on how well they would have performed, they would have been able to unlock more calming images for the night-time section. The night-time section would have enabled the user to set alerts which would have reminded them that they should have been turning off all screens at least an hour before bedtime (research was undertaken about melatonin and how screens affected it – this will be evident in the next section). Additionally, there would have been activities which the user could have involved themselves in beyond an hour before their bedtime. These would have been viewing a gallery of calming images and a place where they could have written a list of aspects which were causing them stress and then the user would have been able to have screwed this list up into a ball and played a game of trying to throw it into a virtual bin.

### The Target Audience

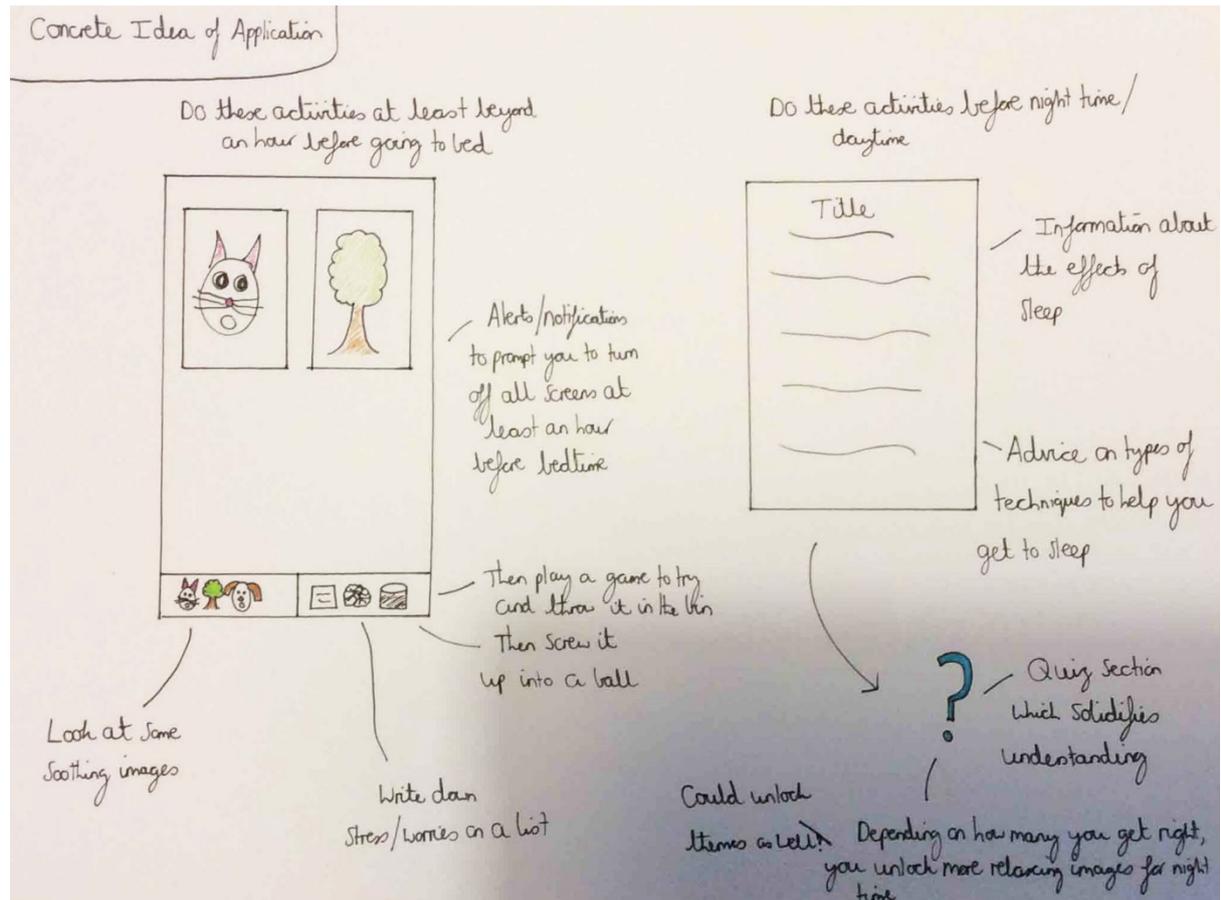
The primary target audience were those who suffered from poor sleep with the secondary audience being those aged between 18 and 25 years to try to help them sleep, especially by preventing the usage of electronic screens before bedtime. The research I undertook identified the need for an application that focused more on the causes of poor sleep rather than analysing data and being reactive.

### Sketches/Brainstorms to Visualise the Final Idea

#### Sketch/Brainstorm 1



Sketch/Brainstorm 2



## Initial Primary Research to Make the Idea Viable

### Introduction

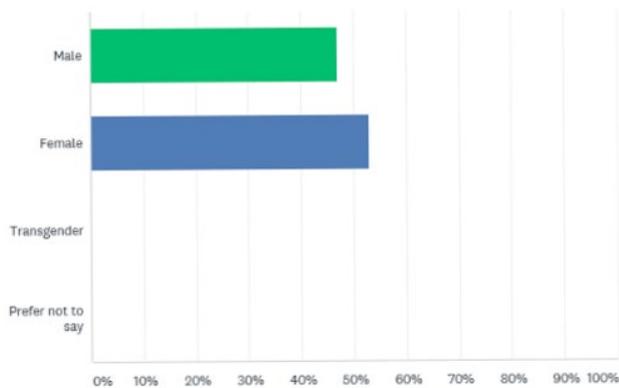
After undertaking some research to inspire me, as displayed earlier, I then constructed a survey to help gain some primary research about screen time and sleep patterns, releasing it to the ‘DMD’ ‘Facebook’ page and a few others as well. Below you will be able to see the results (17 responses).

### The Results of the Primary Research

#### Gender and Age Group Results

What is your gender?

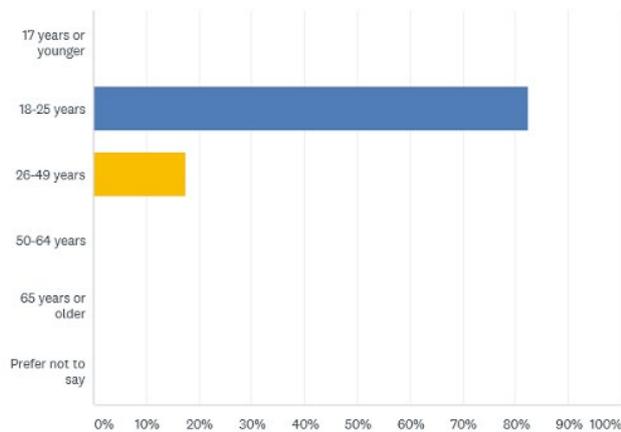
Answered: 17 Skipped: 0



ANSWER CHOICES	RESPONSES
Male	47.06% 8
Female	52.94% 9
Transgender	0.00% 0
Prefer not to say	0.00% 0
<b>TOTAL</b>	<b>17</b>

How old are you?

Answered: 17 Skipped: 0



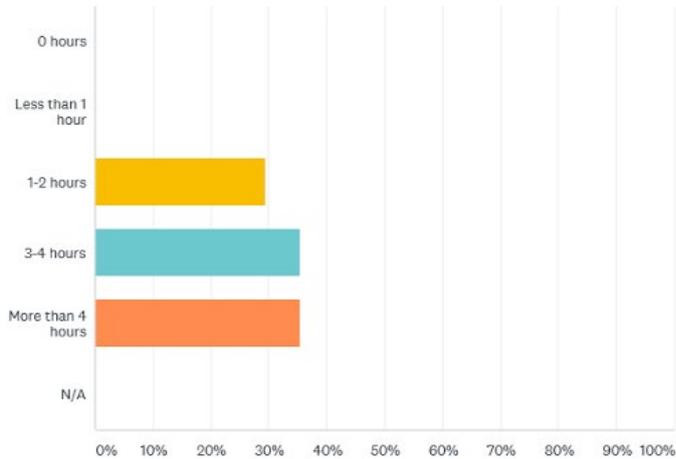
ANSWER CHOICES	RESPONSES
17 years or younger	0.00% 0
18-25 years	82.35% 14
26-49 years	17.65% 3
50-64 years	0.00% 0
65 years or older	0.00% 0
Prefer not to say	0.00% 0

As could have been seen above, the majority who answered were female and the age group was mostly 18-25 years.

### Electronic Screen Usage Results

How many hours in the evening\* do you spend looking at an electronic screen?(\*6:00 p.m.+)

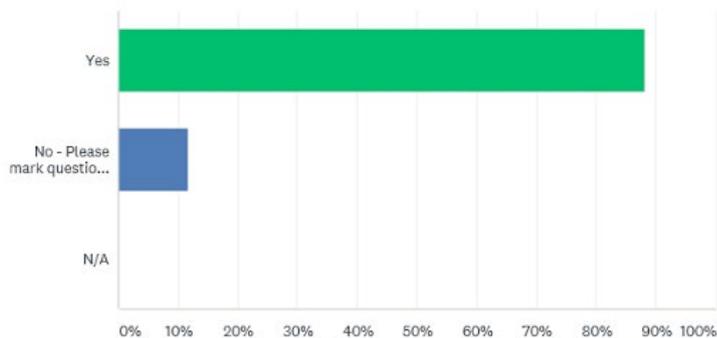
Answered: 17 Skipped: 0



ANSWER CHOICES	RESPONSES
0 hours	0.00% 0
Less than 1 hour	0.00% 0
1-2 hours	29.41% 5
3-4 hours	35.29% 6
More than 4 hours	35.29% 6
N/A	0.00% 0

Do you look at an electronic screen directly before going to sleep?

Answered: 17 Skipped: 0



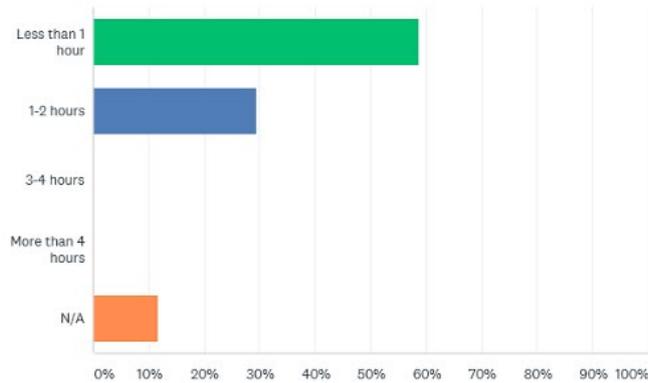
ANSWER CHOICES	RESPONSES
Yes	88.24% 15
No - Please mark question 5 as N/A	11.76% 2
N/A	0.00% 0
<b>TOTAL</b>	<b>17</b>

As is evident above, from all the respondents, they stated they all at least spent one hour looking at electronic screens from 6pm onwards, with the majority also stating that they looked at an electronic screen directly before going to sleep.

### Time Taken to Fall Asleep and other Contributing Factors Results

If you look at an electronic screen directly before going to sleep, how long does it normally take before you fall asleep?

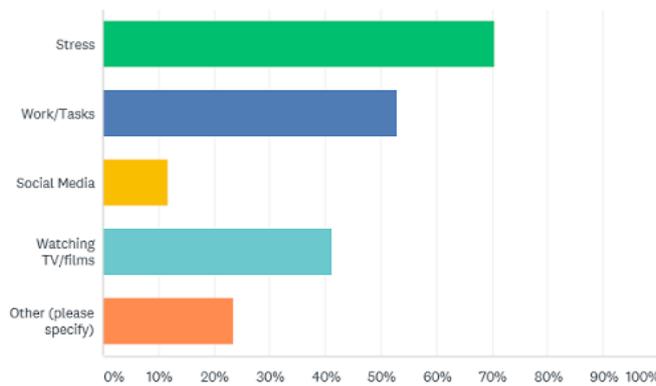
Answered: 17 Skipped: 0



ANSWER CHOICES	RESPONSES
Less than 1 hour	58.82% 10
1-2 hours	29.41% 5
3-4 hours	0.00% 0
More than 4 hours	0.00% 0
N/A	11.76% 2
<b>TOTAL</b>	<b>17</b>

Apart from the use of electronic devices, which other factors might contribute to keeping you awake?

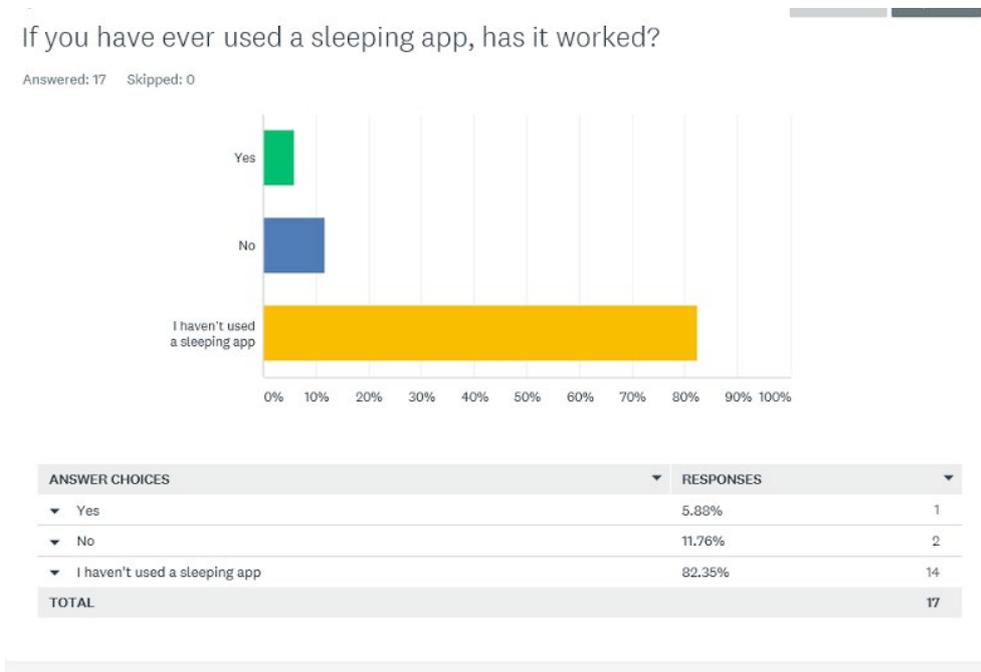
Answered: 17 Skipped: 0



ANSWER CHOICES	RESPONSES
Stress	70.59% 12
Work/Tasks	52.94% 9
Social Media	11.76% 2
Watching TV/films	41.18% 7
Other (please specify)	Responses 23.53% 4
<b>Total Respondents: 17</b>	

Despite the fact that most of my respondents stated that they looked at an electronic screen before going to bed, the majority responded with that it only took them less than an hour to get to sleep. Other factors which contributed to keeping them awake were mostly stress and work/tasks.

### Sleeping Application Usage Results



The surprising element of this section was that very few had used a sleeping app with only one person having done this.

### Ideas Suggested to Include in a Sleeping Application Results

- Track social media or your general phone usage and have a points system where you are rewarded for turning your phone off and punished for surpassing the limit. These points can then be used to unlock new nature sounds in order to help you sleep/system where your phone turns of your features
- Calming influence (breathing exercises, gentle reminders, calming music)
- Do something without an electronic screen (read a book)

## Secondary Research

### Introduction

As well as undertaking some primary research, I also collected some research from various sources on the Internet. This is shown below.

### The Collected Research

#### Smartphone/Electronic Screen Usage before Bedtime

- 90% of people aged 18-29 sleep with their smartphones (Blodget, 2012)
- 95% of people use their phone before going to bed (Blodget, 2012)
- Screen time reduces the quantity of melatonin which is the chemical that makes you feel sleepy (Blodget, 2012)
- With regards to melatonin, the wavelengths nearer to blue and green affect it (Gallagher, 2015)
- From the 6461 people that undertook a survey, 47% said that they looked at a screen before going to bed (Lee-Chiong, n.d.)
- If you use a bright screen for 1.5 hours or more then you may increase your alertness (*Sleep Health Foundation, 2016*)
- Different technology and activities undertaken on them may be more beneficial than others (*Sleep Health Foundation, 2016*)
- It is beneficial to change from interactive devices to passive devices (*Sleep Health Foundation, 2016*)
- People become addicted and continue to use their technology beyond their bedtime (*Sleep Health Foundation, 2016*)
- Melatonin is not affected by 1 hour of screen time but is if screen time is more than 1.5 hours (*Sleep Health Foundation, 2016*)
- This repeated use over a duration of 5 days can affect the body clock by 1.5 hours (*Sleep Health Foundation, 2016*)
- Sleep is affected by the use of screens an hour before bedtime (*Sleep Health Foundation, 2016*)
- More chance of feeling tired in the daytime (*Sleep Health Foundation, 2016*)
- Interactive activities e.g. playing a game or texting are more dangerous than passive activities e.g. watching a film or listening to music (*Sleep Health Foundation, 2016*)
- To prevent alertness, reduce brightness of the screen (*Sleep Health Foundation, 2016*)
- Orange tones of light are better (*Sleep Health Foundation, 2016*)

#### How Stress Affects Sleep

- Most adults with a stress issue impacts upon their sleep at least once weekly (ADAA, n.d.)
- Over half of these adults had their sleep impacted by stress several times weekly (ADAA, n.d.)
- 75% of adults that have their sleep affected by stress/anxiety say they feel more anxious and stressed (ADAA, n.d.)
- 61% of adults say they only get 7 hours of sleep at least four nights of the week (ADAA, n.d.)
- Stress affects the quality of your sleep because if you don't get enough sleep, then the body produces more and more stress hormones, making it hard for some of your brain chemicals to reduce the amount of stress hormones in your body and as a result making you feel more and more stressed (*Sleep Org, n.d.*)

## Further Primary Research (A Later Stage of the Project)

### Introduction

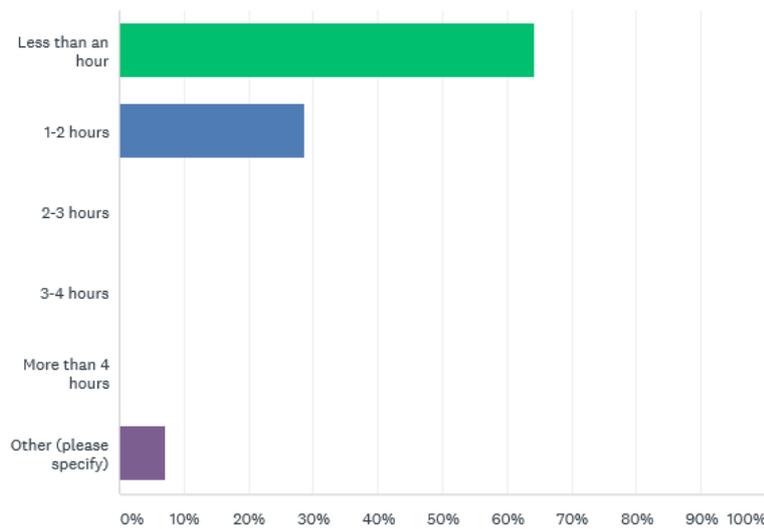
In order to justify why I was producing the product that I was, I undertook further primary research at a later stage focusing on how screen time, stress and work affected our sleep (14 responses).

### The Results from the Further Primary Research

#### The Duration Taken to Fall Asleep after Viewing an Electronic Screen Results

How long does it take you to fall asleep after looking at an electronic screen directly before going to bed? (phone, tablet, laptop, etc. not TV and games consoles)

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES
Less than an hour	64.29% 9
1-2 hours	28.57% 4
2-3 hours	0.00% 0
3-4 hours	0.00% 0
More than 4 hours	0.00% 0
Other (please specify)	Responses 7.14% 1
<b>TOTAL</b>	<b>14</b>

Even though the majority of responses stated less than an hour, there were still some individuals who stated that it took them 1-2 hours to get to sleep.

### The Duration Taken to Fall Asleep Whilst Stressed/Anxious Results

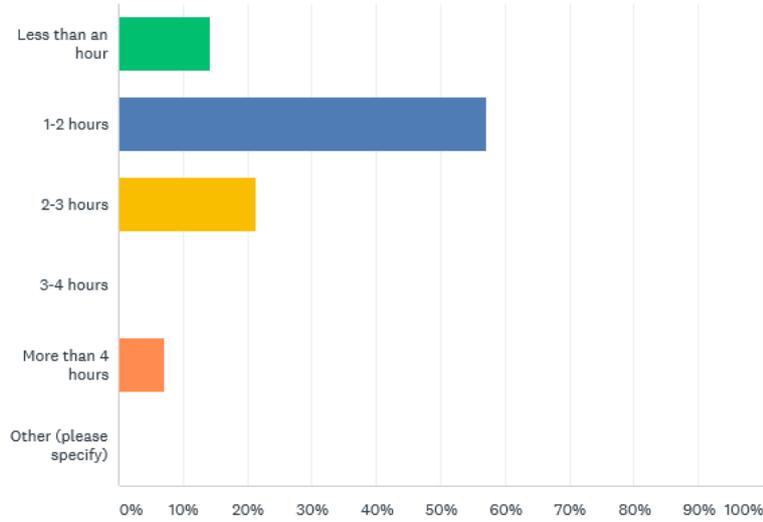
Q3

Customize

Export ▼

How long does it take you to fall asleep when feeling stressed/anxious?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Less than an hour	14.29%	2
▼ 1-2 hours	57.14%	8
▼ 2-3 hours	21.43%	3
▼ 3-4 hours	0.00%	0
▼ More than 4 hours	7.14%	1
▼ Other (please specify)	Responses 0.00%	0
<b>TOTAL</b>		<b>14</b>

As is evident above, the majority stated it took them between 1 and 2 hours to fall asleep whilst feeling stressed/anxious with the second most popular answer being even longer at 2-3 hours.

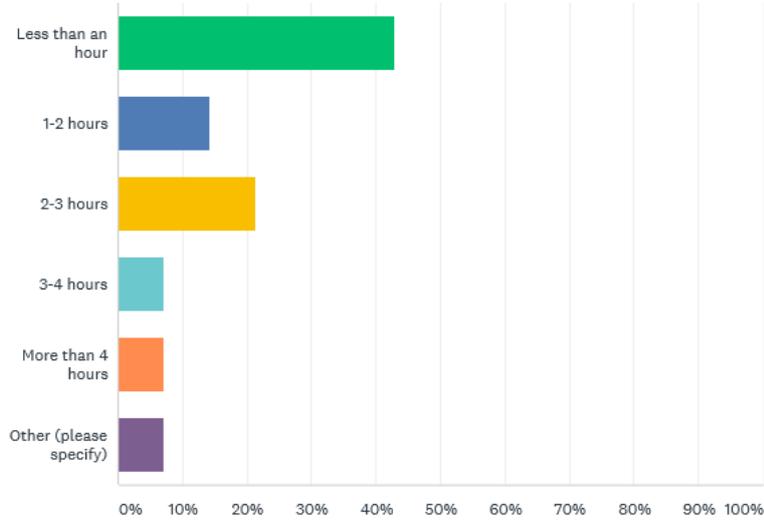
The Duration of Bedtimes being Delayed due to Work/Tasks Results

Q4

Customize Export

How long is your bedtime delayed due to work/tasks?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES
Less than an hour	42.86% 6
1-2 hours	14.29% 2
2-3 hours	21.43% 3
3-4 hours	7.14% 1
More than 4 hours	7.14% 1
Other (please specify)	Responses 7.14% 1
<b>TOTAL</b>	<b>14</b>

It is worth noting that there were a variety of answers for stress and work/tasks which highlighted that different people were affected in different ways.

## Considered Fonts and Colours for the Application

### Introduction

After collecting research on the topic area, I thought it would have then been good to look at the visual aspect of the application. So, to begin, I gathered together different fonts and colours and decided which ones I would have chosen and which ones I would have discarded.

### Fonts

#### Introduction

First of all, I collected together various fonts which I thought would have been good to use in a sleeping application, analysing the advantages and disadvantages of each.

#### The Collected Fonts

##### *An Overview*



##### *Arial*

- Advantages -> Professional and clear to see
- Disadvantages -> Basic and sometimes it is a popular font which means it is seen quite a lot

##### *Avenir*

- Advantages -> Looks professional and clear to see, unique
- Disadvantages -> Doesn't relate to a sleeping application as it looks like the font 'Century Gothic', a font that has connotations of being old-fashioned

##### *Constantia*

- Advantages -> Appears to be a friendly and not stern font, again professional
- Disadvantages -> Has connotations of being a little old-fashioned, similar to 'Avenir'

##### *Montserrat*

- Advantages -> Modern and friendly appeal, clear and bold and professional

##### *Poiret One*

- Advantages -> Unique
- Disadvantages -> Thin and very similar to 'Century Gothic' and has an old-fashioned feel to it

##### *Roboto*

- Advantages -> Modern and professional
- Disadvantages -> In my opinion, it doesn't have a soft and friendly feel, it is very corporate

##### *Righteous*

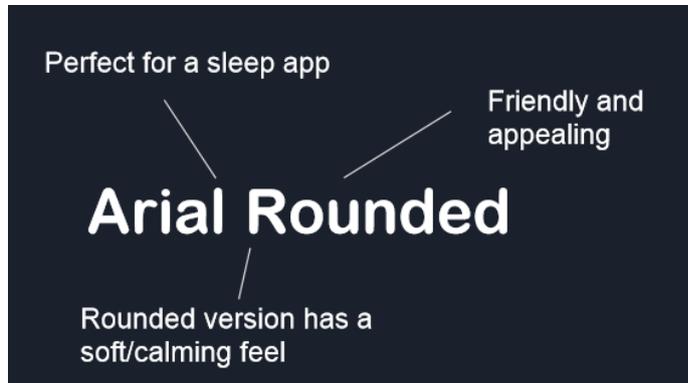
- Advantages -> Appears to have a fun appearance to it, clear and bold
- Disadvantages -> There is a slight old-fashioned feel to it, especially with the letter 'e'

## The Chosen Font to use in Application

### *Introduction/Overview*

After conducting some visual research on possible fonts to use, I came to a final conclusion that I would choose the font 'Arial Rounded' as it had connotations of softness and related to sleep. It was friendly and not stern but a welcoming, modern font.

### *The Font Itself*

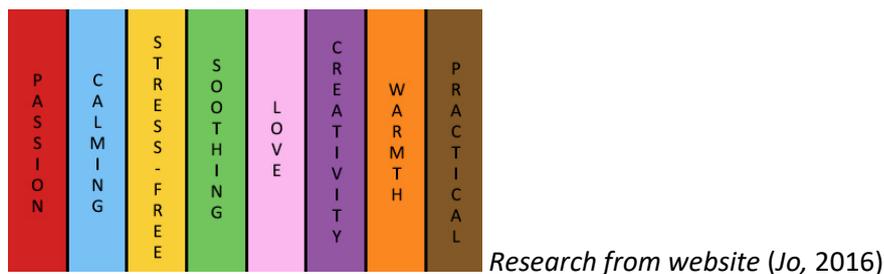


## Colours

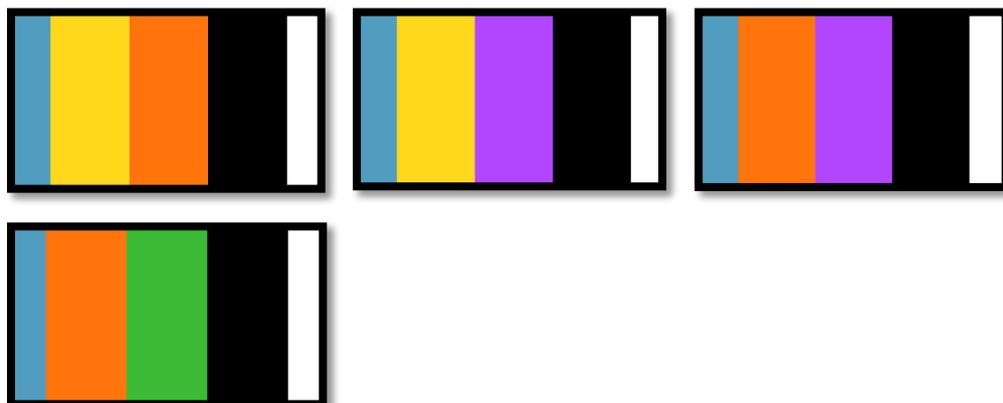
### Introduction

After choosing my font, I then undertook some visual research on colours to use for my application. First of all, I researched about which colours helped with sleep when decorating for a bedroom and from this research, I made a collection of colour palettes which can be viewed below.

### The Collected Research



### The Created Colour Palettes



From my research, I tried to implement colours which had a calming nature as is evident above.

## Interface Inspiration and Ideas for the Application

### Interface Inspiration

#### Introduction

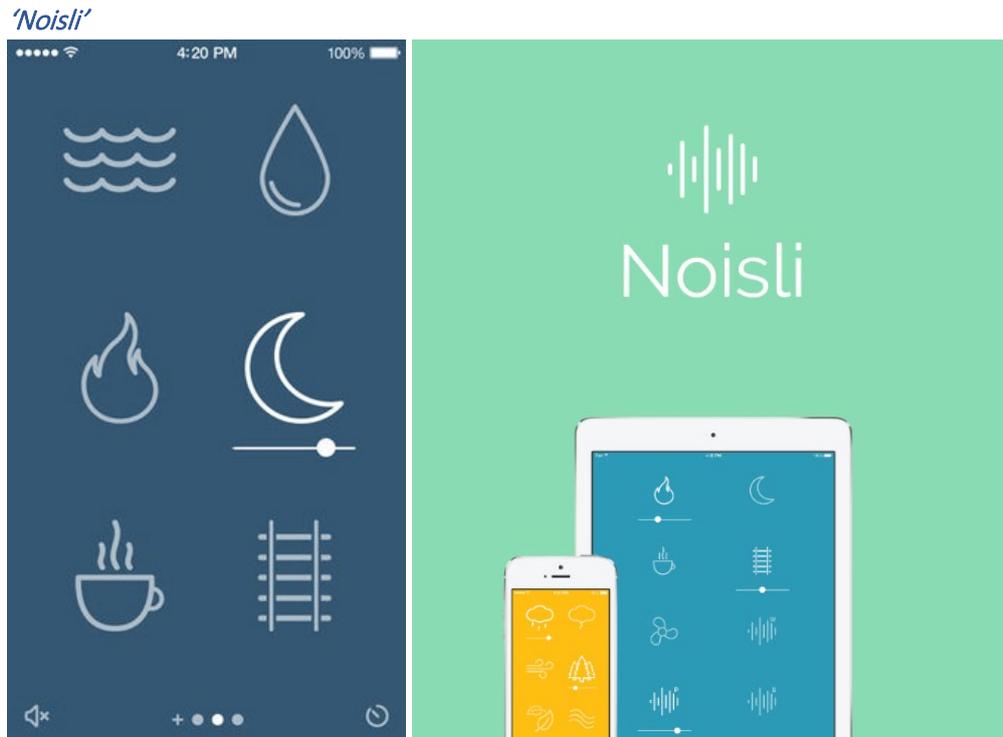
I thought it would have then been good to view some interface designs from a couple of my competitors' applications to gain inspiration for mine.

#### The Competitors' Interface Designs Viewed

##### *'Sleep Cycle'*



As is evident with the interface on 'Sleep Cycle', the navigation was placed at the bottom of the application with the main information placed in the centre. The design was very simplistic but effective and was easy to understand.



What I liked about the interface of 'Noisli' was that mostly imagery was used but in a very effective way as it was still simple to gauge an idea of how to navigate the interface. Simplistic colours were used as well, there weren't too many which distracted from the product which was another aspect that appealed to me.

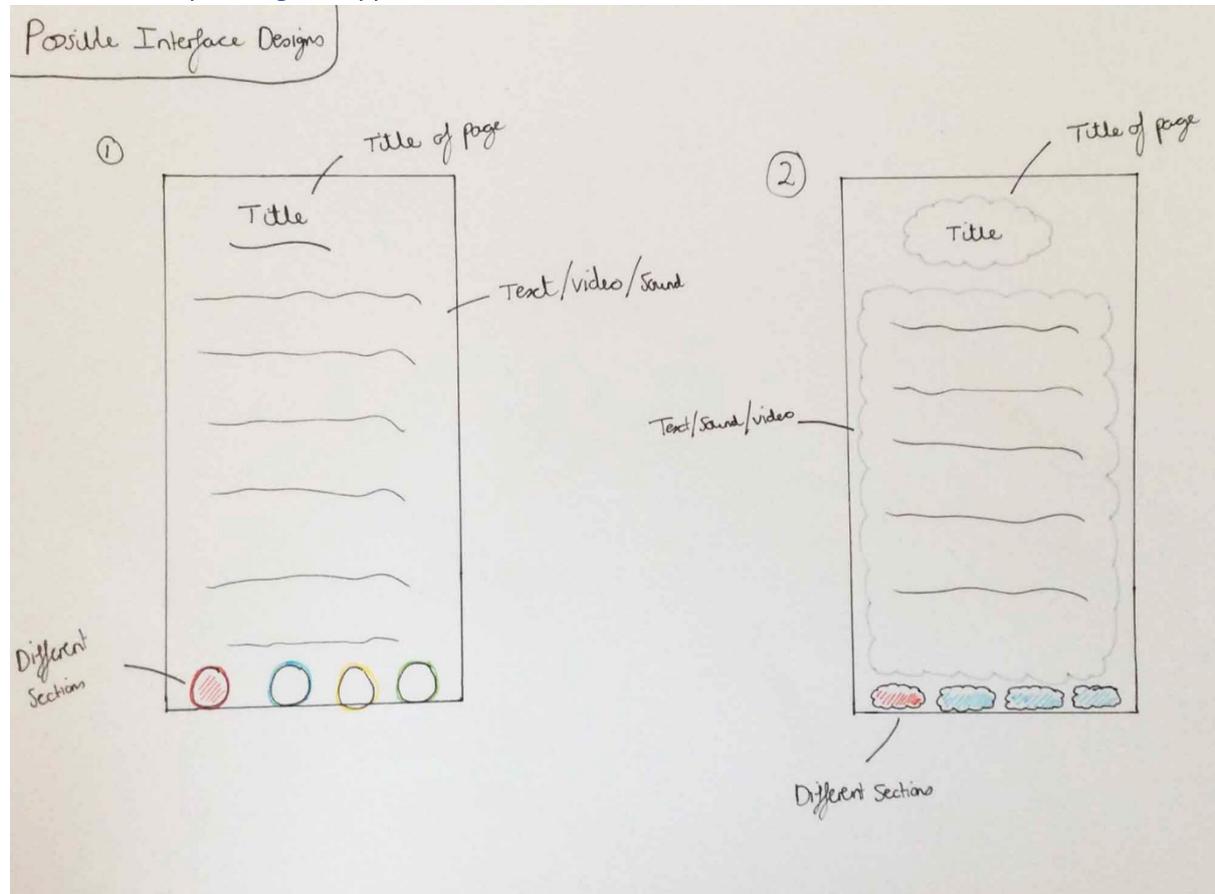
## Interface Ideas

### Introduction

After undertaking some visual research of application interfaces, I then decided to draw some sketches of initial ideas of how my interface could have appeared. These can be viewed below.

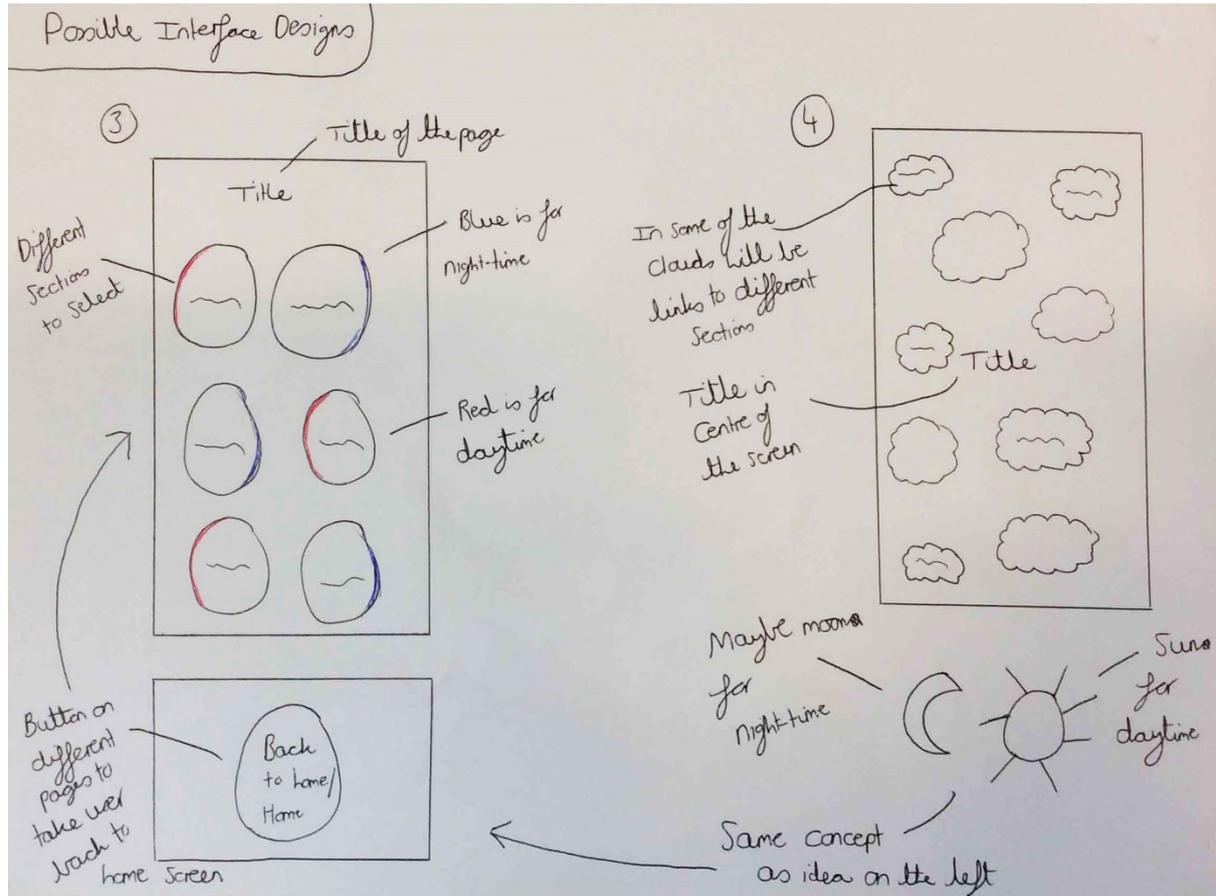
### Sketches of Possible Ideas/Designs

#### *Ideas Before Separating the Application into Sections*



With these sketches, I tried to implement a navigation bar that would have had several links but soon realised that this may have become confusing and that I needed to divide my application into two sections, a daytime section and night-time section as will be evident in the next sketches. However, I thought the cloud design was appealing as it would relate to sleep.

*Ideas After Separating the Application into Sections*



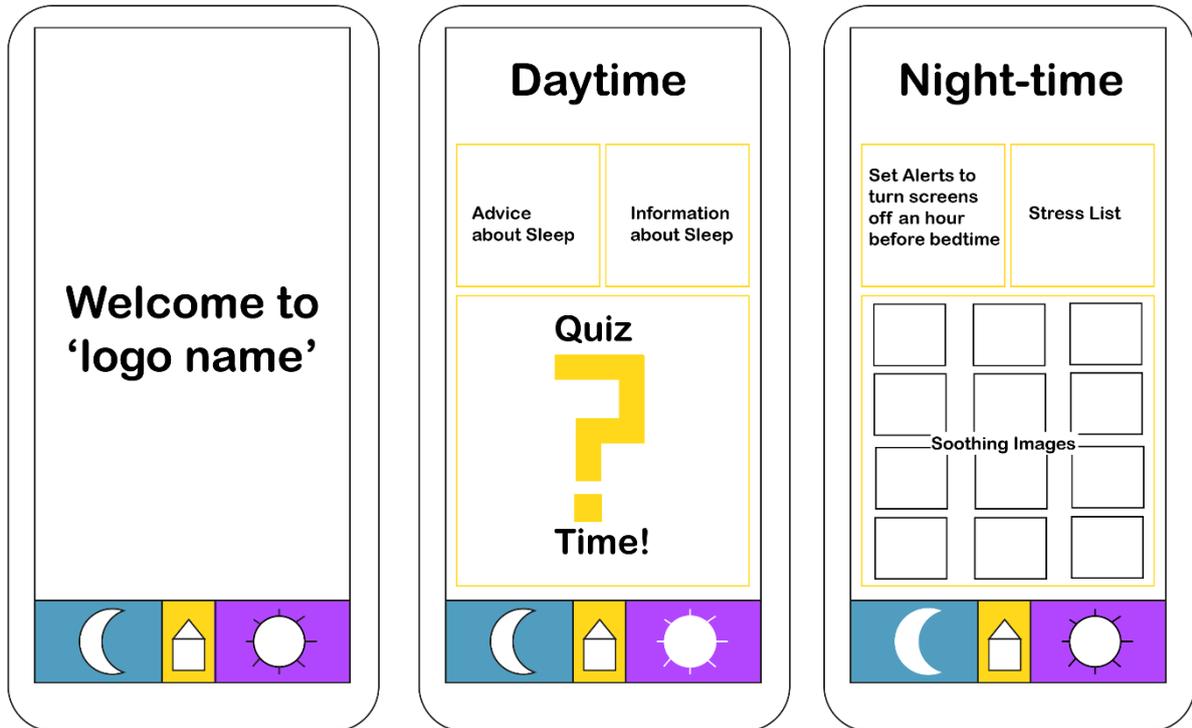
With regards to these sketches, I tried to implement the idea of a daytime section and night-time section. This is evident with the different colours on the sections on the first sketch (red was for daytime and blue was for night-time). Then, after selecting a section, there would have been a navigation button which would have taken the user back to the home screen. The only negative about this was that it may have appeared as unprofessional as it would have been more beneficial to have a home button at the bottom of the screen throughout the different screens. Likewise, this would have been the case for the sketch on the right-hand side. With this sketch, again I thought it would have been good to implement the clouds but then realised it would have been more beneficial to the user if there were multiple suns and moons in relation to the daytime and night-time sections. I had thought of this idea of a daytime section and a night-time section before when I had tried to produce some mock-ups which will be shown later in this document but I wanted to explore lots of different possibilities first before finalising an idea.

## Mock-ups of the Interface Design

### Introduction

After conjuring up some initial sketches of how the interface could have appeared, I then started to create some mock-ups of how the application could have appeared in terms of the interface. These can be viewed below.

### The Actual Interface Mock-ups



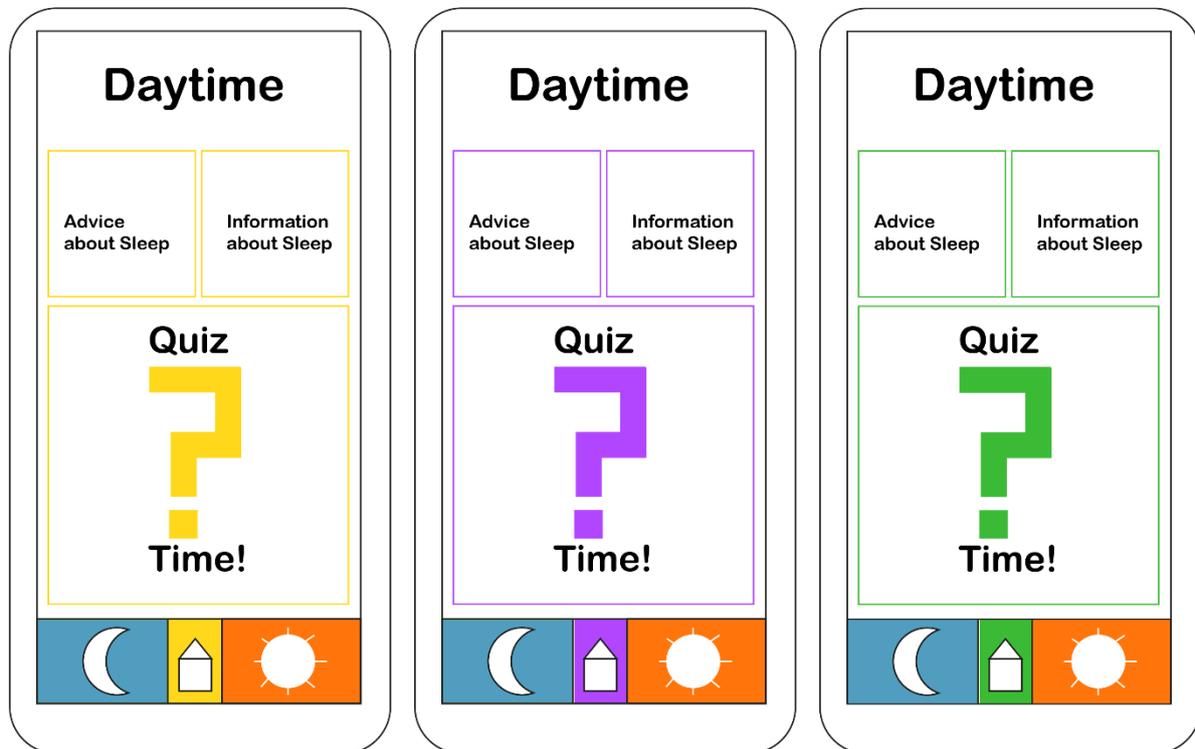
As can be seen above, on the left was the welcome screen/home screen which would have welcomed the user to the application. The logo would have appeared as well as the name of the application, both of which weren't created at this stage but will be viewable further on. Then, in the middle was the daytime section which would have contained the advice and information sections placed at the top of the screen with the quiz section placed underneath. For the night-time section, similarly the alerts and stress list section would have been placed at the top of the screen with the calming images section placed underneath. The active screen would have shown a completely white filled object in the navigation bar at the bottom, whereas the other links would have had a black outline to indicate themselves as inactive.

## Trialling Colour Palettes in the Interface Designs/Ideas

### *Introduction*

After completing the initial mock-ups, I then trialled the different colour palettes I had made earlier. This can be viewed below.

### *The Actual Trialling of Colour Palettes*



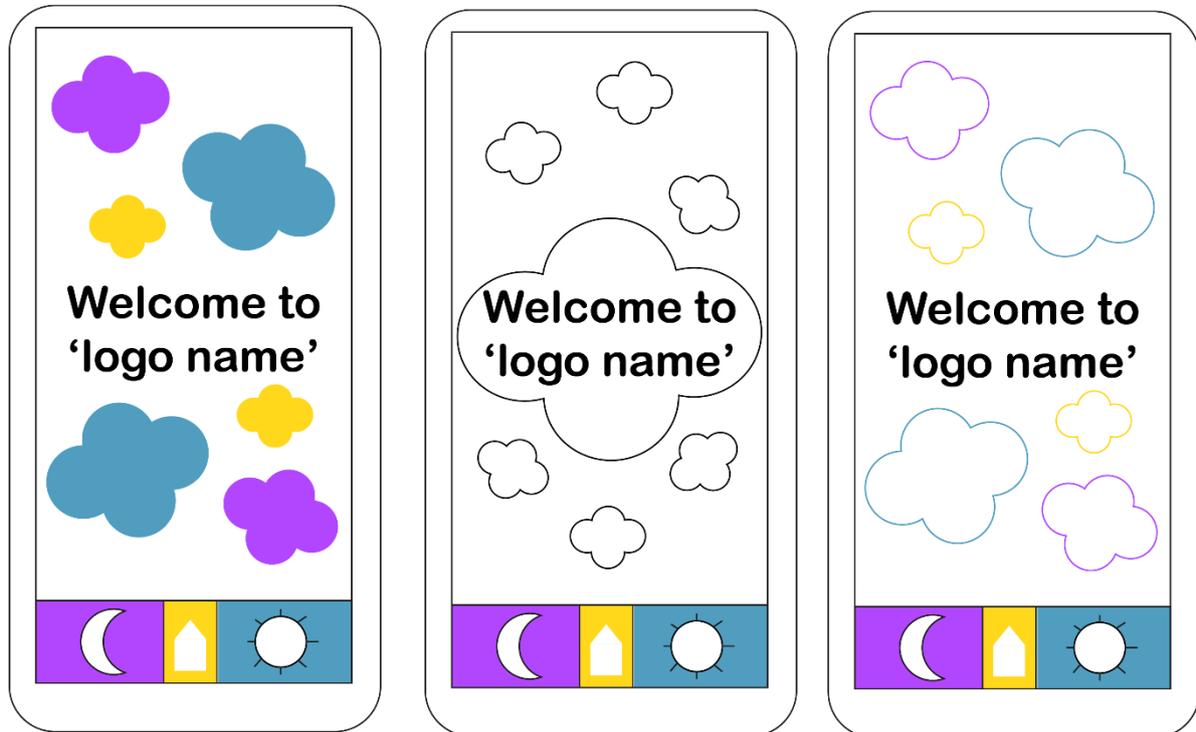
I decided I would have chosen the very first colour palette (shown on the previous page) as this appealed to myself the most. Although, I thought about changing the navigation so that the sun would have had a blue background for daylight and the moon would have had a purple background to portray night-time.

## More Development Work on Home Page

### *Introduction*

I thought as well as having the logo/name of the product on the home screen, I would have included a cloud design as the background. Therefore, I decided to use 'Adobe Illustrator' to create some designs of this. However, this theme was used throughout the application rather than on the home screen later on in this project as this appeared to portray the home screen as untidy and unprofessional.

### *The Additional Ideas for the Home Page/Screen*



## Ideas for Names of Application

### Introduction

I then decided to think of and select a name for my application as this would have been one of the more important tasks in the project. Firstly, I wrote a sentence to reiterate the purpose of my app in order for myself to think of names which could have reflected this. I then listed ideas of names underneath, highlighting the name to choose.

### Listing the Ideas of Names and Making a Final Decision

*Application: Sleep based application which focuses on calming stress and discouraging users from looking at electronic screens before going to bed.*

- *Night night* (Already in use)
- *Sleep tight*
- Wind down
- SleepBuddy (Already in use)
- SleepCuddle
- SleepyTime (Already in use)
- SleepCompanion
- Rise and Shine (Already in use)
- SleepySleep (Already in use)
- SleepMinder
- **SleepSaviour (Could be used)**
- SleepRelaxer (Could be used although just refers to relaxation rather than electronic screens)

Unfortunately, the majority of the names thought of already existed which narrowed the choice options down to a few. However, from the names remaining, 'SleepSaviour' was chosen as the idea of the application would have been to save the user's sleeping time from any distractions and I thought the word 'Saviour' highlighted this.

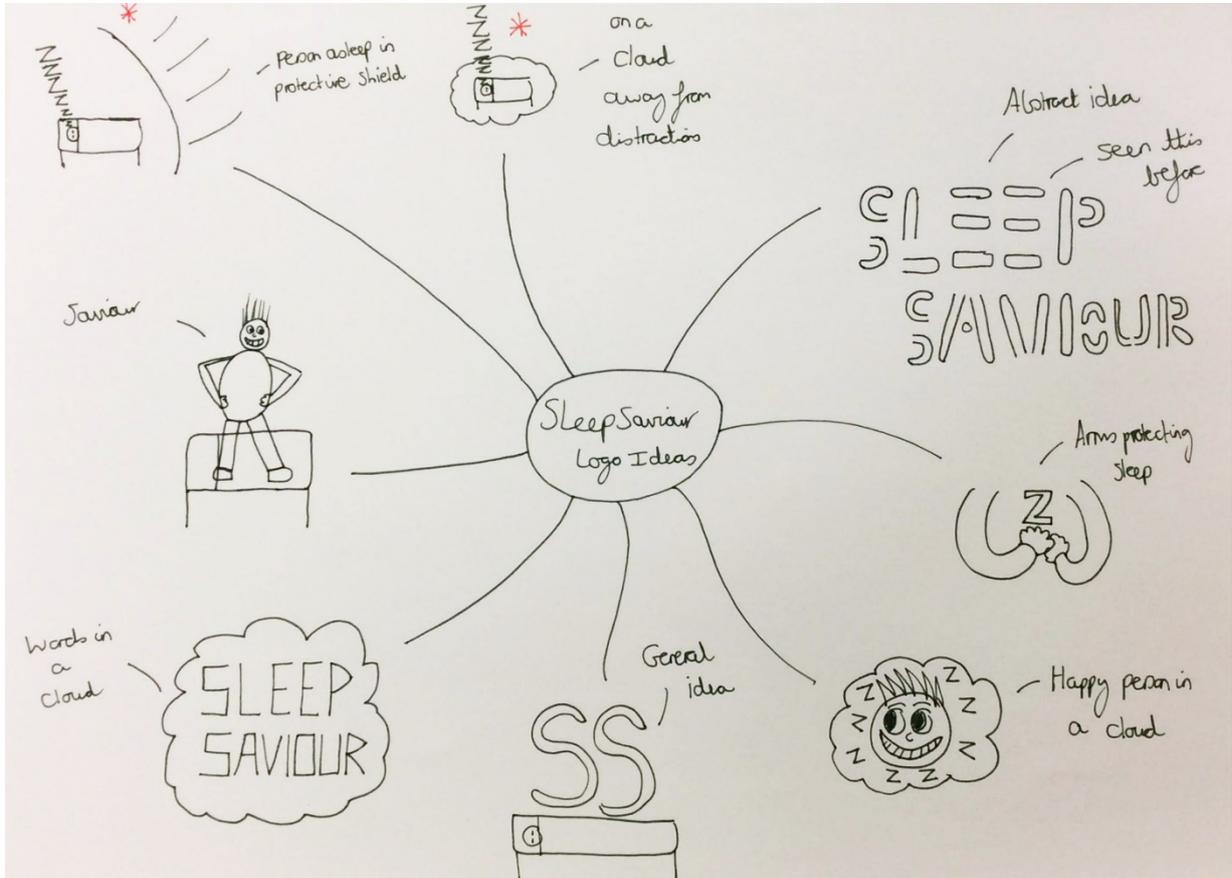
## Logo Ideas for the Application

### Initial Ideas

#### Introduction

To begin, I sketched out several ideas in order to display a range of approaches. I attempted to think of ideas which related to sleep. This was evident with the beds and clouds in some of the logo ideas.

#### The Actual Sketched Initial Ideas



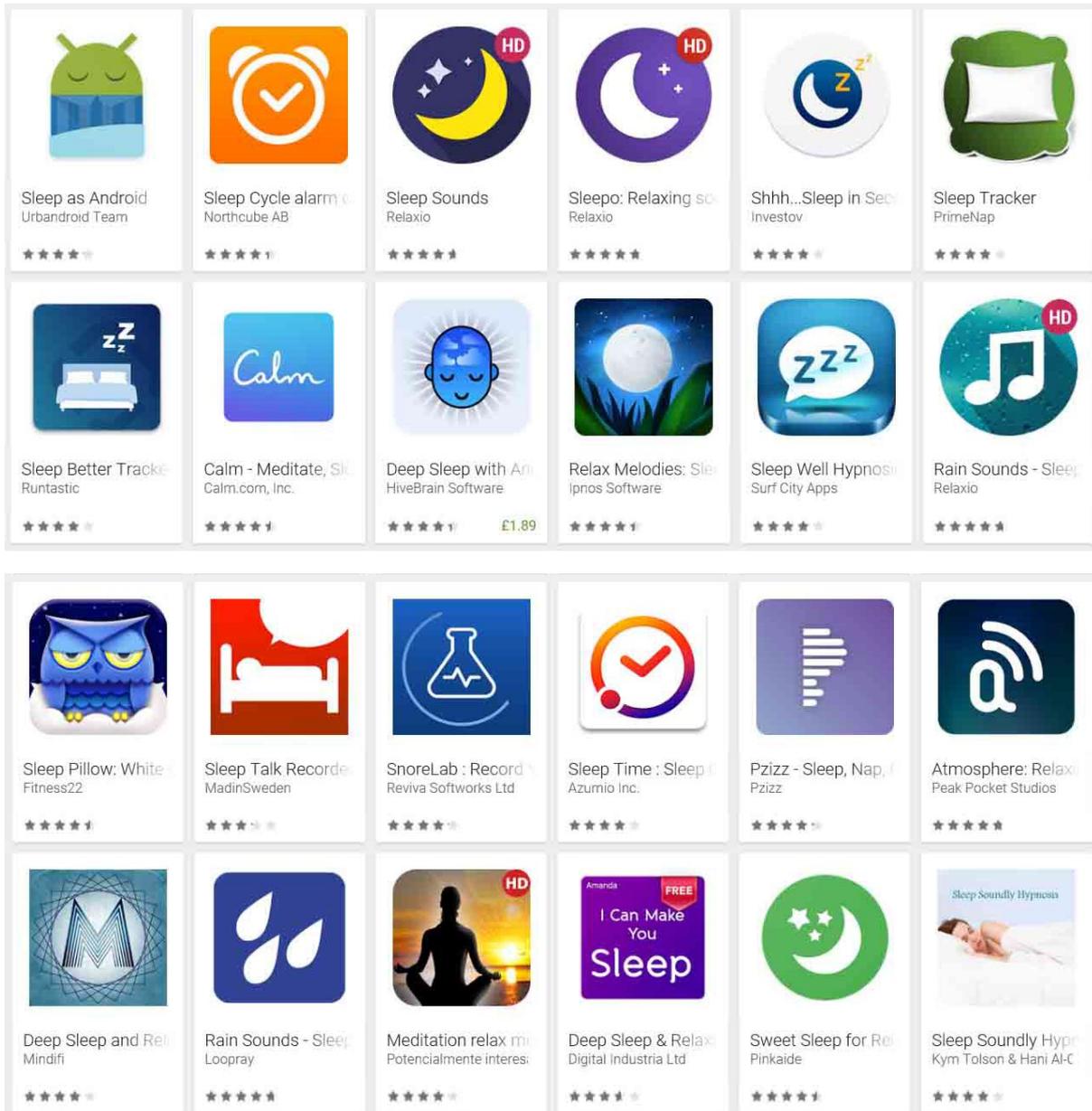
## Inspiration/Research

### Introduction

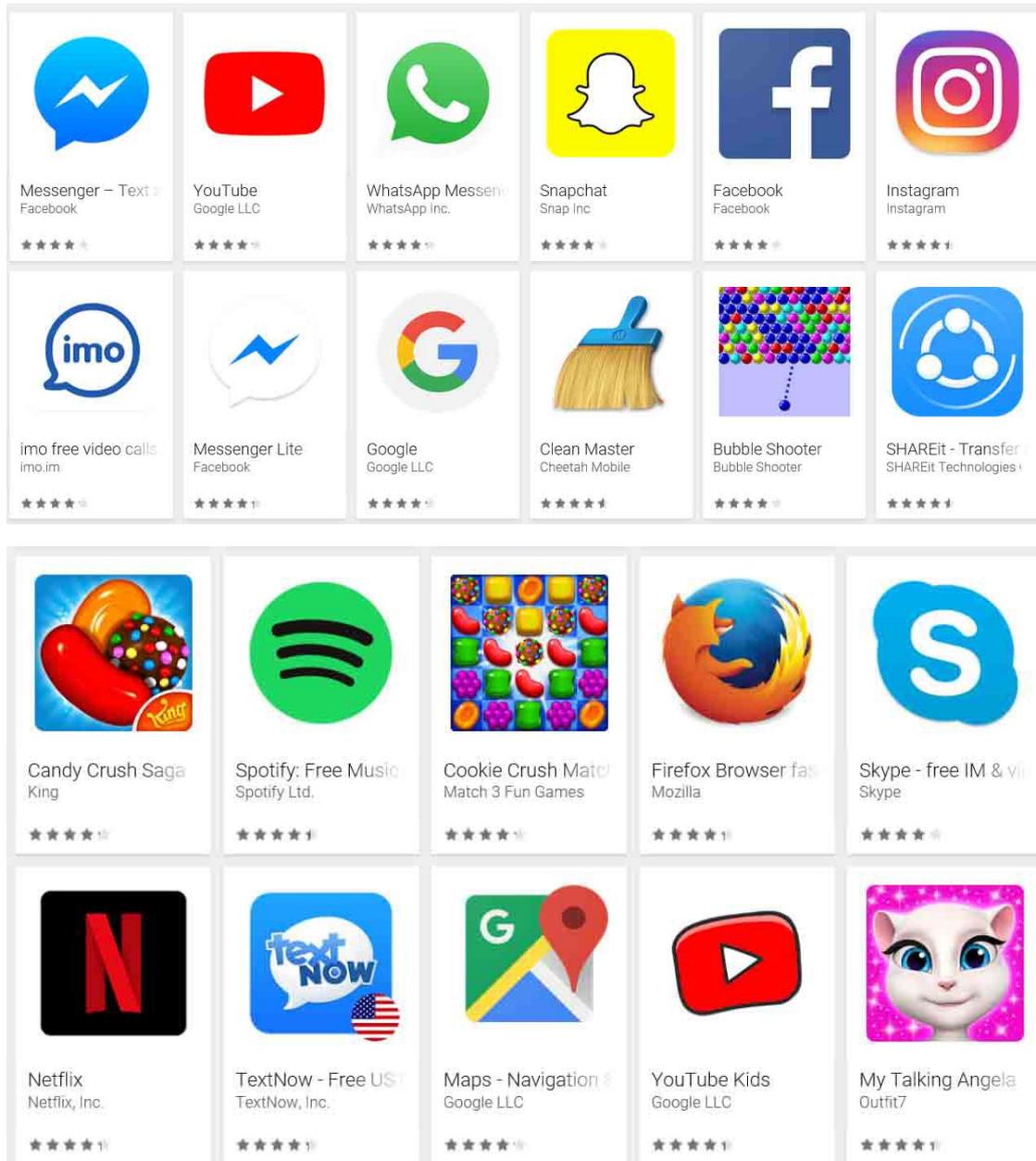
Even though I had already started making some logo ideas, I thought it would have still been beneficial for myself to view current sleep application logos and application logos in general to help myself gain an insight into the types of practices I would have needed to apply to the final chosen design.

### The Collected Research

#### *Sleeping Applications Logos*



*Applications in General Logos*



**Conclusions from the Research**

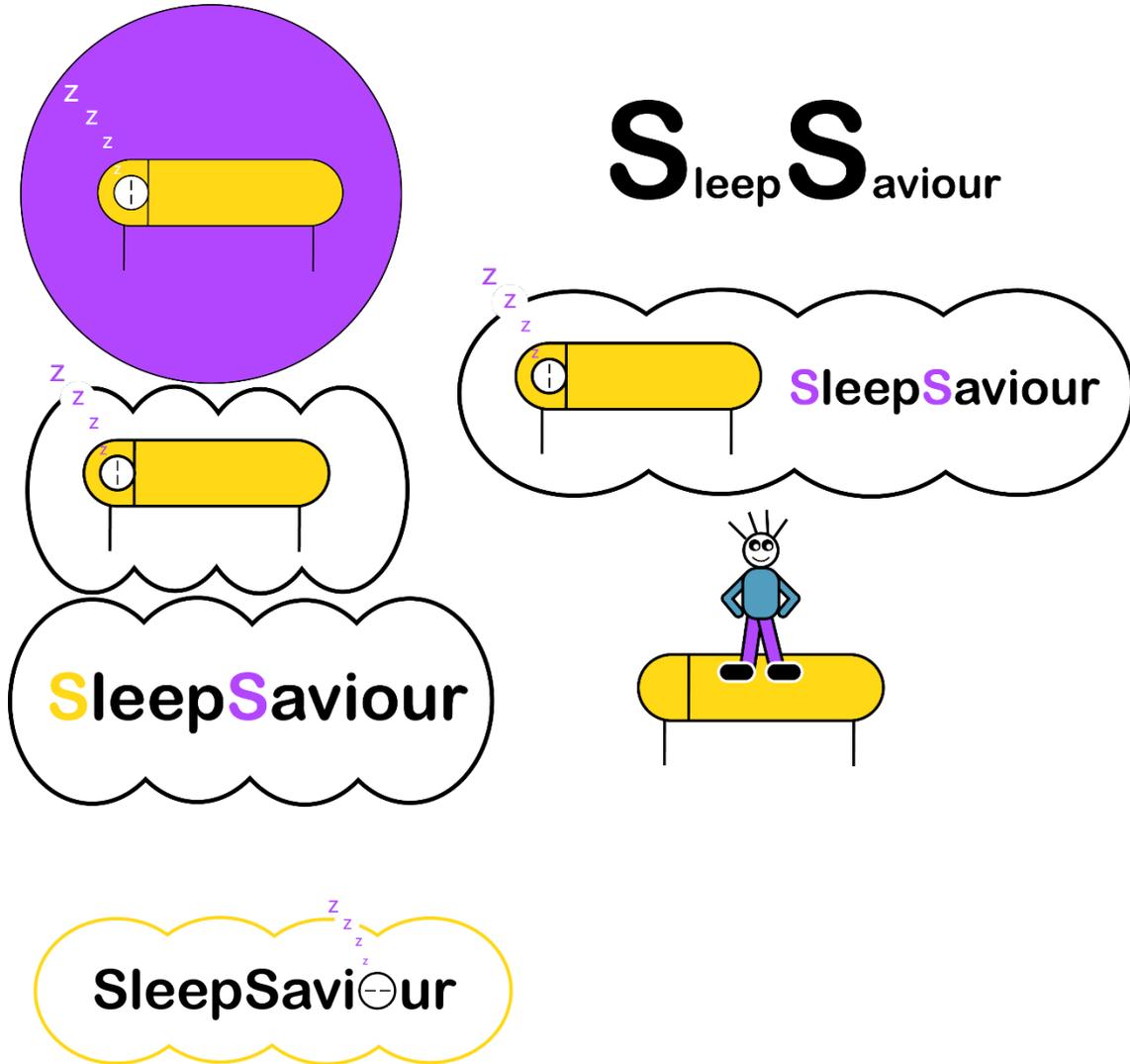
From the visual research collected above for both sleeping applications and applications in general, I instantly gained knowledge that the names of the applications were sometimes not included in the logo and that the more simplistic design, the better.

## My Developed Logo Ideas

### Introduction

After gathering my initial research for the logo, I then continued with making some logo designs to try and implement some of the concepts I had found with the previous research. These can be viewed below.

### The Actual Created/Developed Logo Ideas



As can be seen above, I trialled logos with visuals, text and also a combination of both. The two logos which appealed to myself the most were the one directly above and also the one in the middle on the right of the first screenshot. This was because they both combined visuals and text and I believed it would have been more beneficial to have the name of the application included as well.



I tried to implement the colour scheme into these logos to reflect the nature of the application, this can be seen through the use of the yellow and purple. With regards to the first idea, I tried to include a picture with the name of the application to the side of it surrounded by a cloud. This was to portray the fact that the app would have helped the user to sleep better and distance themselves away from any troubles or distractions that were preventing them from getting to sleep. The same concept applied to the second logo idea. However, as is evident I tried to include the visual element into the name, with a person sleeping with their eyes closed for the letter 'o'.

## The Chosen Logo

### Introduction/Overview

The logo which was chosen was the last one shown previously as this seemed more professional due primarily to the fact that the visual element was integrated into the name of the application. After producing other pieces of work for the project, I implemented this logo and soon realised that on a dark background, the white circle around one of the 'Z' letters could be seen. Therefore, I altered this to the logo displayed below.

### The Image of the Chosen Logo



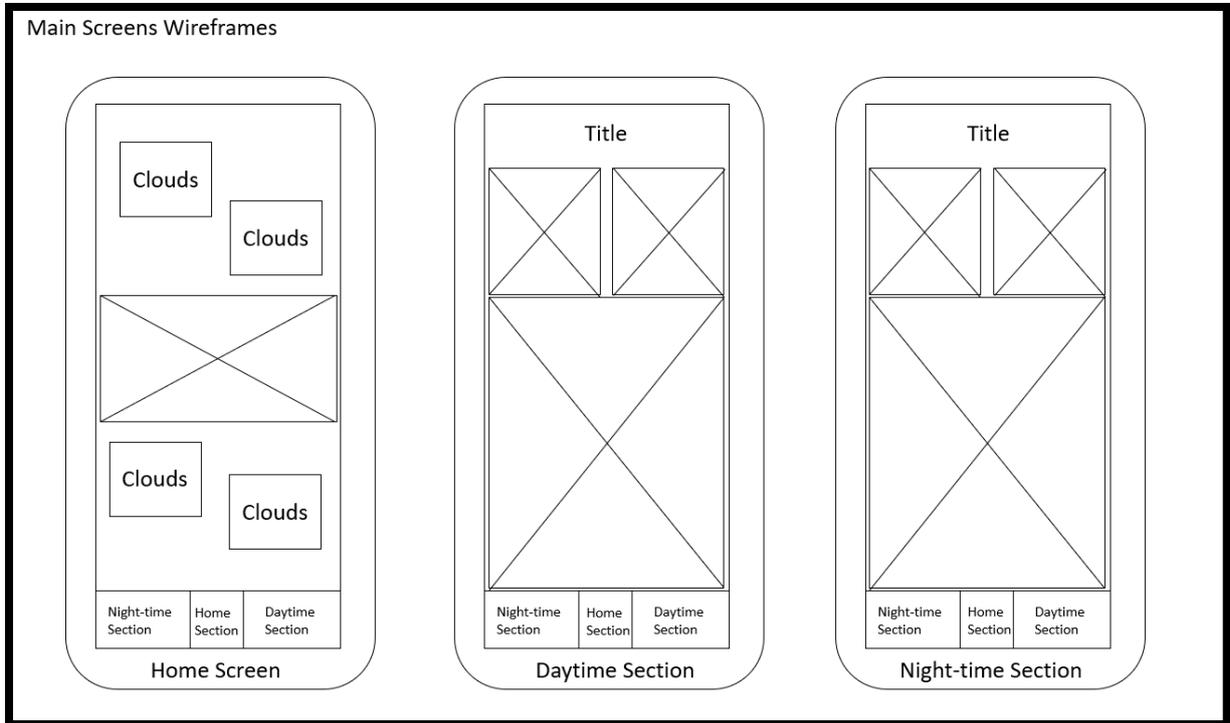
## Wireframes and Sitemap

### Introduction

Before producing the 'Adobe XD' file for my application, I produced some wireframes and a sitemap to help myself understand the navigation of the interface fully. These can be viewed below.

### The Created Wireframes

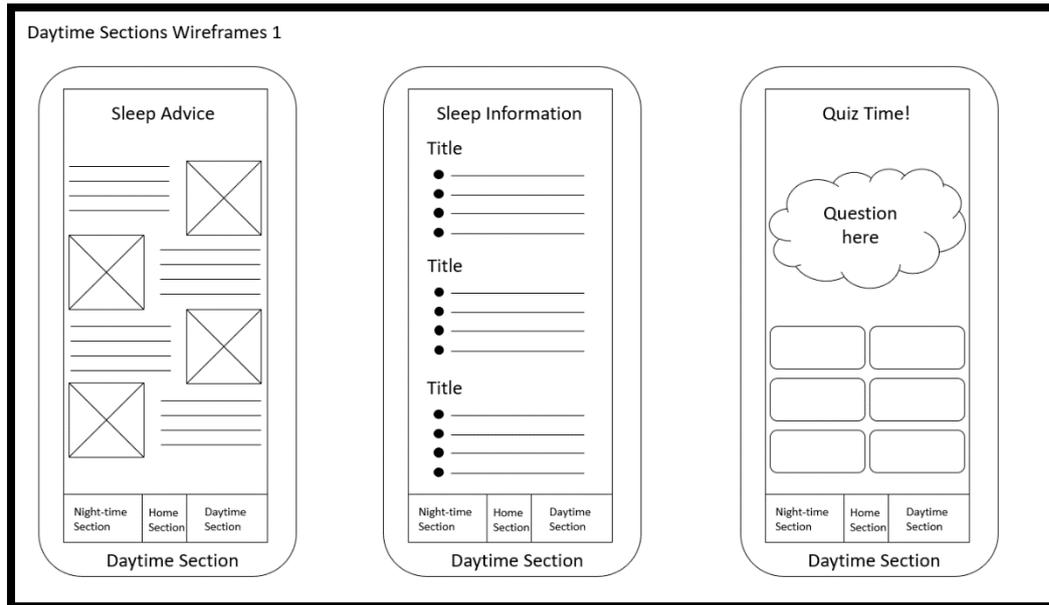
#### The Main Screens



The home screen wireframe tried to include clouds around the logo and name in the middle of the screen. There was a navigation bar at the bottom linking to the home section, daytime section and night-time section. With regards to the other two wireframes, the daytime section would have had its different sections placed on the page with the three boxes and the title placed at the top of the screen. This same concept applied to the night-time section screen as well.

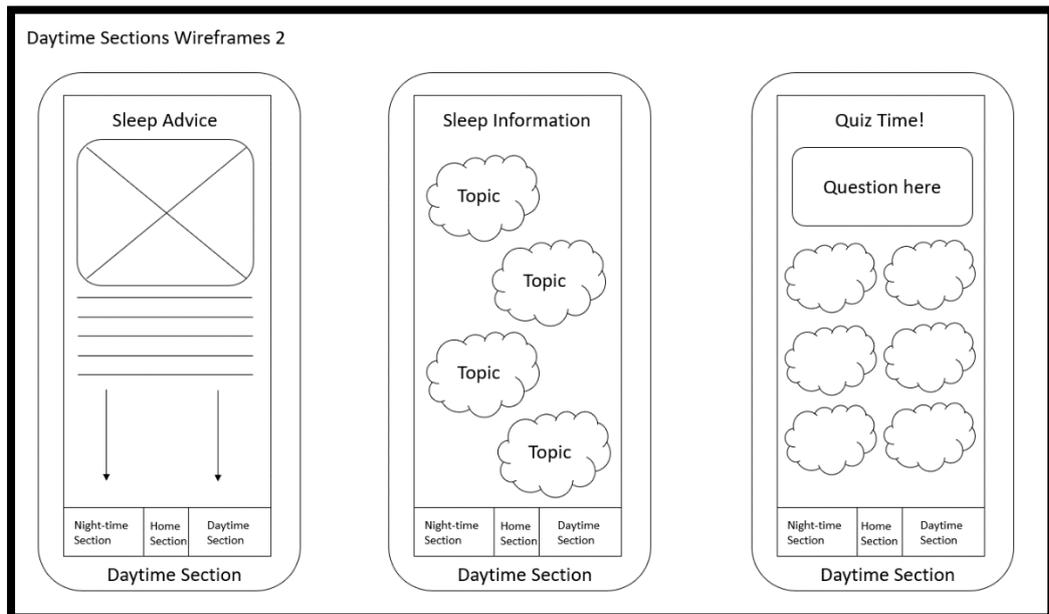
## The Daytime Sections

### Ideas Set 1



Likewise, these wireframes had the navigation bar situated at the bottom of the screen. For the sleep advice section, the idea was to have each piece of advice with pictures placed next to them in alternating positions. The sleep information section would have had titles of different topics with the corresponding information below and the quiz time section would have had a question in a cloud with the options below in boxes.

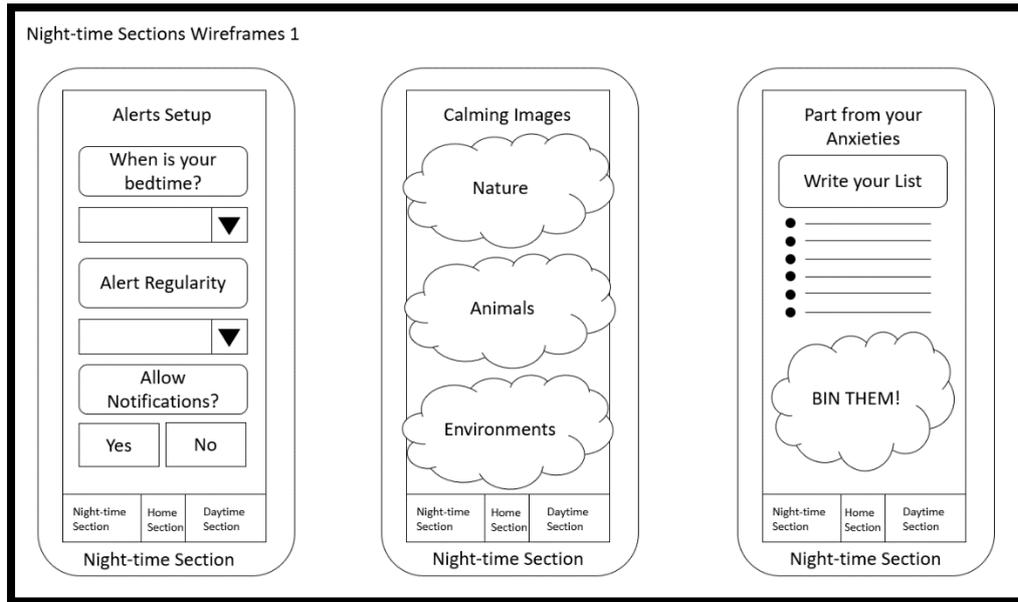
### Ideas Set 2



These wireframes displayed a different approach to the previous wireframes. The sleep advice here would have included a picture and then text for different topics. For the information section, there would have been different topics in clouds which the user would have chosen and then have been taken to another screen. For the quiz, the question would have been in a box at the top of the screen with the options in a cloud underneath.

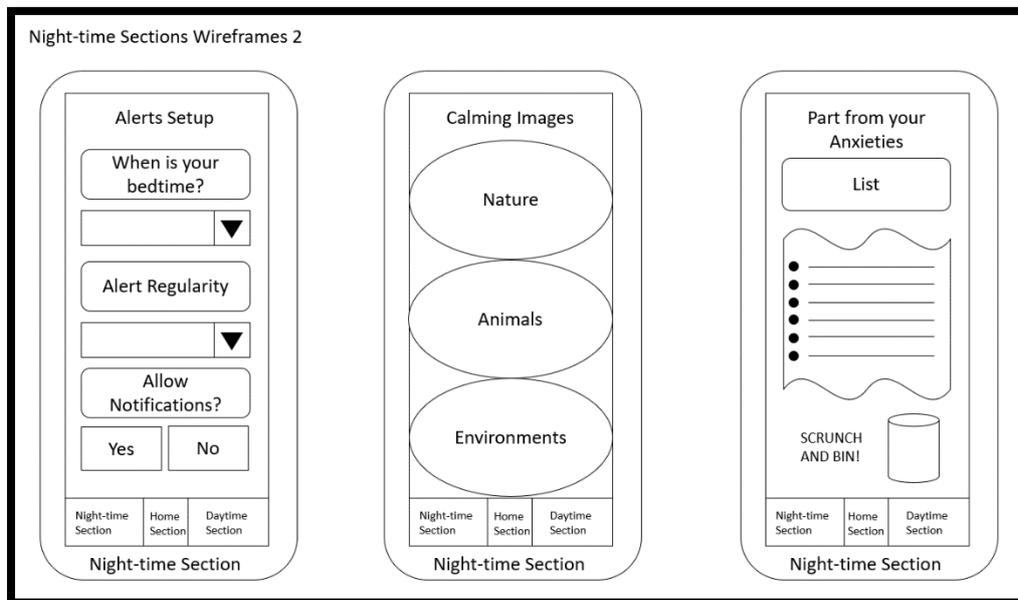
## The Night-time Sections

### Ideas Set 1



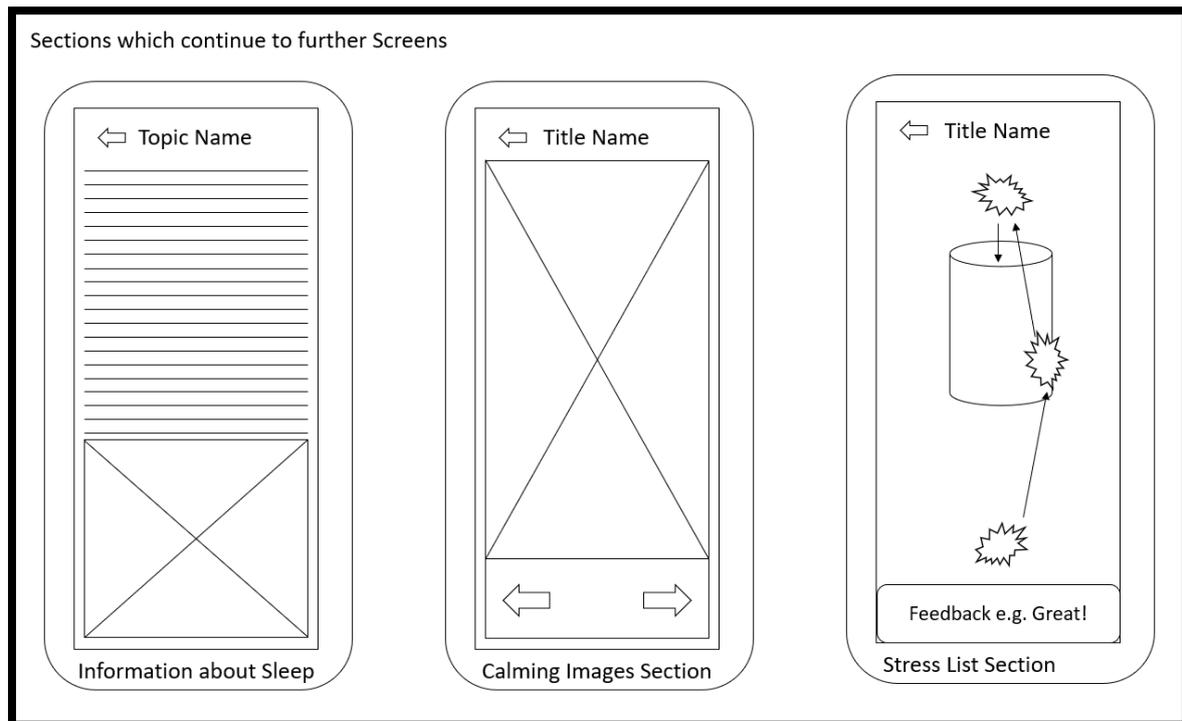
With regards to these wireframes, the alerts setup would have contained several questions where the user would have selected their preferences and then this would have linked to reminding them of when to turn off all screens. The calming images wireframe demonstrated different topics where the user would have chosen which one they wanted to view images for and then they would have been taken to a separate screen. Finally, the stress list section on the last wireframe showcased a place where the user would have written their list and then have had the option to throw this list into a virtual bin.

### Ideas Set 2



The calming images and stress list sections changed in these wireframes. The only differences were that the topics for the calming images were placed inside an oval shape rather than a cloud and the design was slightly different for the stress list.

## Sections Continuing from Other Aspects of the Application



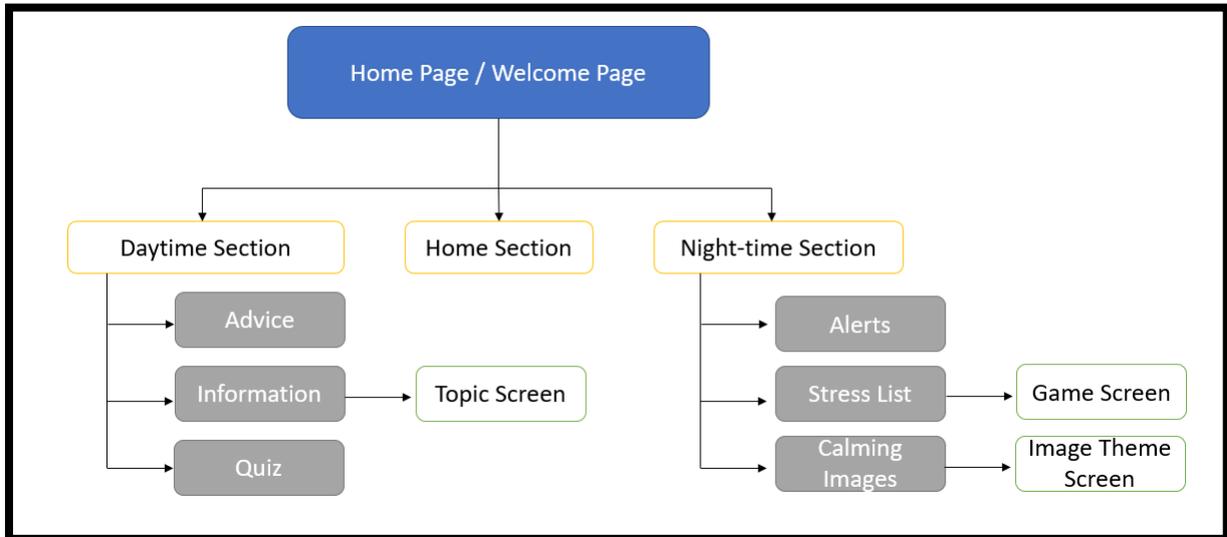
These are the screens which the user would have been taken to when navigating from different sections of the application. After choosing a topic about sleep, the user would have then been taken to the wireframe on the left where information as well as pictures would have been displayed with the topic title at the top of the screen. The calming images section would have contained arrows for the user to have navigated through, displaying images based on the topic they had chosen in the previous part. After selecting to throw a stress list in the bin, the user would then be taken to the screen on the right where they would have received positive feedback on their progress.

## The Created Sitemap

### Introduction/Overview

The sitemap created can be seen below. There were additional screens to navigate through in the final outcome but at this stage this was to gain an understanding of how I would have established the navigation of my application.

### The Actual Sitemap



## ‘Adobe XD’ Wireframes/Mock-ups

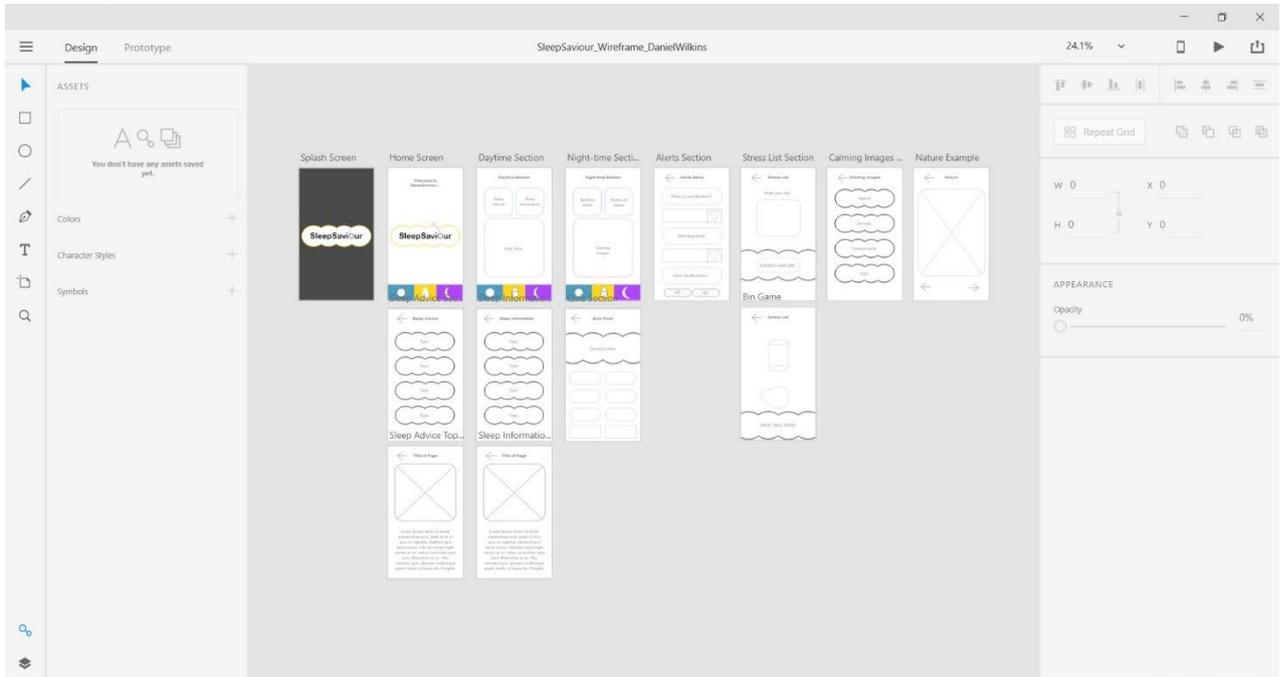
### Introduction

Based on my previous visual ideas, wireframes and sitemap, I thought for the next stage of the project it would have been beneficial to create a mock-up of the interface in ‘Adobe XD’. This can be viewed below.

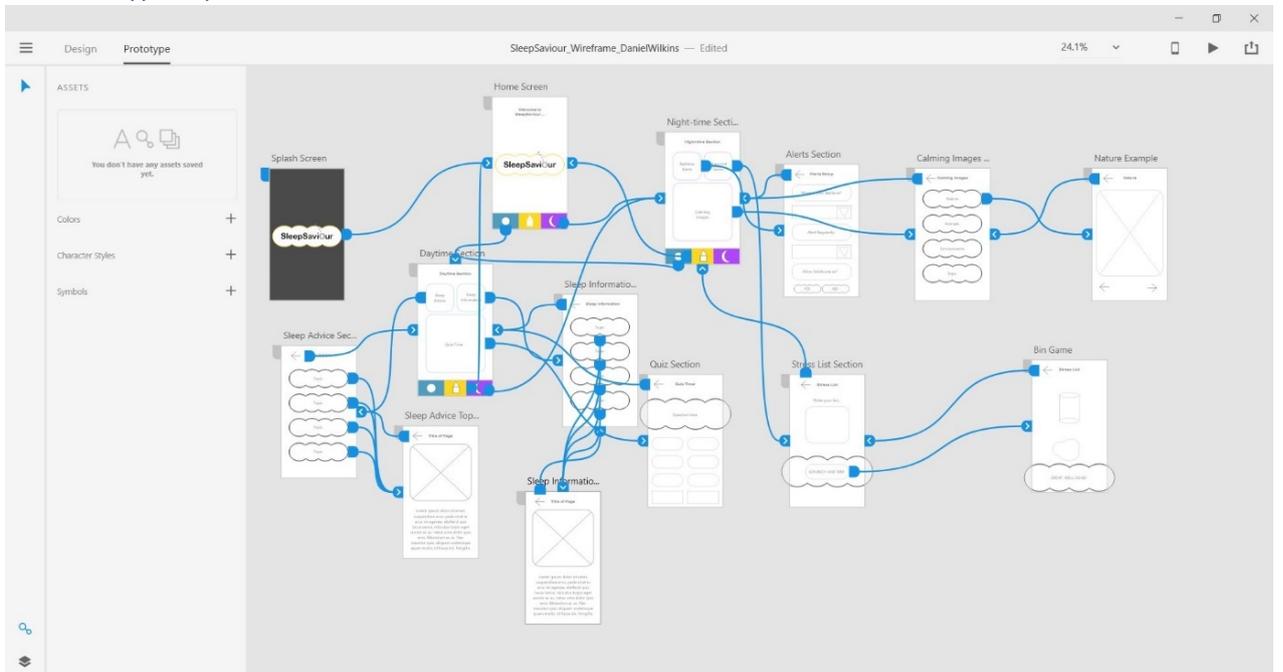
### The Actual ‘Adobe XD’ Wireframes/Mock-ups

#### Overviews of Every Screen

##### *The Design Aspect*



##### *The Prototype Aspect*



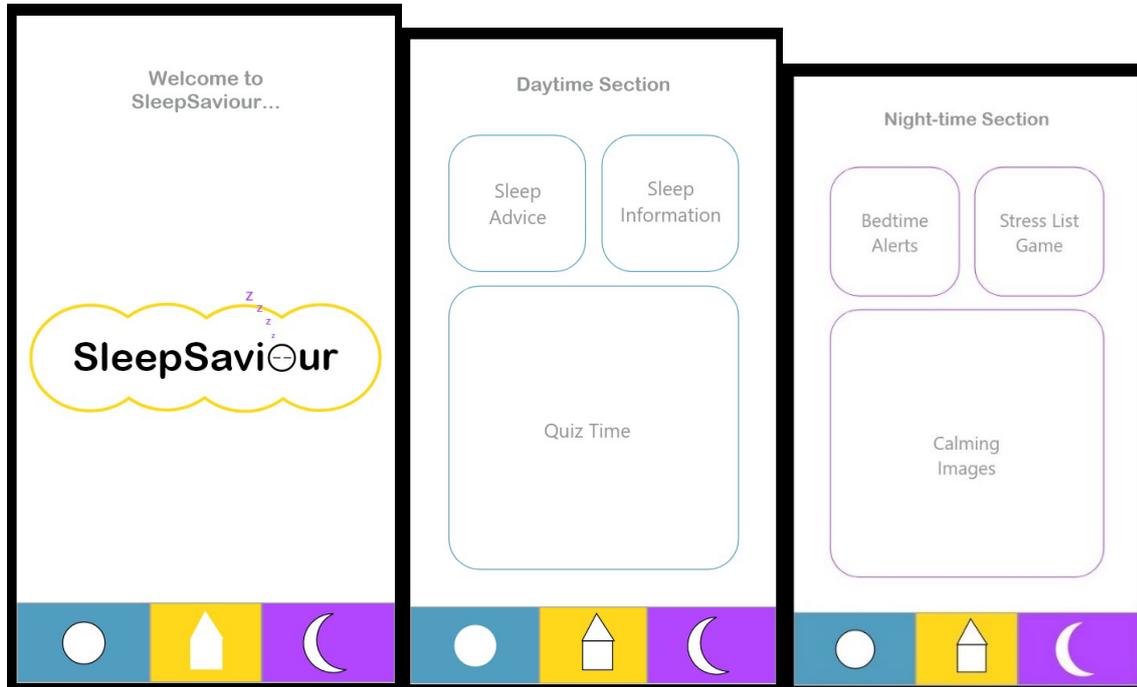
## Main Screen Interfaces (Home Screen, Daytime Section Screen and Night-time Section Screen)

### *Introduction/Overview*

As well as including overviews of the different screens above, the three below relate to the main screens of the application. A link has also been included below regarding the final 'Adobe XD' file/prototype to be interacted with.

**Please Note:** The file provided below is also available on the page of this project on my personal website.

### *The Main Screens and 'Adobe XD' Prototype Link*



<https://xd.adobe.com/view/ede0a6e4-910d-4882-9ac9-31d8a18ffa1c>

## Development of the 'RSA' Project Using 'Xcode'

After completing as much design work as I could for 'SleepSaviour', I then began to develop some aspects of my application due to the timescale and the scope I had set myself at the beginning. For the daytime section I decided to focus on the 'Sleep Information' section and for the night-time section I decided to focus primarily on the 'Calming Images' section and 'Alerts' section. This was to build a prototype which would have provided a general idea of the purpose of the application. As well as completing these tasks, I also ensured that a prototype of the interface was created so that it would have been able to be easily navigated through.

The development work/coding can be viewed on the project page on my personal website.

## How would I approach this Project Differently?

If I were to do this project again, I would ensure that I would set myself a scope which wasn't as big. This would then mean that I could complete the whole project without any problems. My solution was good in the way in which it helped sleep as it addressed several problems. It would have also been informative about sleep and provided helpful advice if it were to be fully finished. However, some of the ideas could have had more creativity to them which would have made the application even better and maybe the design could have been enhanced more.

## Reference List/Bibliography/Acknowledgements for ‘RSA’ Project

ADAA (n.d.) Stress and Anxiety Interfere with Sleep. Available at: <https://adaa.org/understanding-anxiety/related-illnesses/other-related-conditions/stress/stress-and-anxiety-interfere>. [Last Accessed 30th November 2017], [online].

Allen, J. (2017) The 10 Best Apps to Help You Get a Good Night’s Sleep. *Paste Magazine*. Available at: <https://www.pastemagazine.com/articles/2017/06/the-10-best-apps-to-help-you-get-a-good-nights-sle.html>. [Last Accessed 20th October 2017], [online].

AngelList (n.d.) Noisli. Available at: <https://angel.co/noisli>. [Last Accessed 19th October 2017], [online].

Barenbrug, CMH. (2014) Noisli App. Available at: <https://minimalissimo.com/noisli-app/>. [Last Accessed 20th October 2017], [online].

Blodget, H. (2012) 90% Of 18-29 Year-Olds Sleep With Their Smartphones. Available at: <http://www.businessinsider.com/90-of-18-29-year-olds-sleep-with-their-smartphones-2012-11?IR=T>. [Last Accessed 19th October 2017], [online].

Google Play (2017) Calm - Meditate, Sleep, Relax. Available at: <https://play.google.com/store/apps/details?id=com.calm.android>. [Last Accessed 19th October 2017], [online].

Google Play (2017) Sleep Better with Runtastic. Available at: <https://play.google.com/store/apps/details?id=com.runtastic.android.sleepbetter.lite>. [Last Accessed 19th October 2017], [online].

Hughes, N. (2016) Inside iOS 10: New ‘Bedtime’ feature helps you get a proper night’s sleep. *appleinsider*. Available at: <http://appleinsider.com/articles/16/06/21/inside-ios-10-new-bedtime-feature-helps-you-get-a-proper-nights-sleep>. [Last Accessed 20th October 2017], [online].

Jo (2016) National Bed Month: Bedroom colours that help you sleep. Available at: <https://www.homescapesonline.com/blog/bedroom-colours-that-help-you-sleep/>. [Last Accessed 30th November 2017], [online].

Lee-Chiong, T. (n.d.) Prioritising Sleep: Why is sleep not on top of the world’s to-do list?. *Sleep Survey 2017*. Available at: <https://www.philips.com/a-w/innovationmatters/innovation-matters-overview/landing/container6/prioritizing-sleep-why-is-sleep-not-on-top-of-the-worlds-to-do-list.html>. [Last Accessed 23rd October 2017], [online].

Nichols, H. (2017) The 10 best sleep apps. *MedicalNewsToday*. Available at: <https://www.medicalnewstoday.com/articles/317816.php>. [Last Accessed 20th October 2017], [online].

PERBANG.dk (n.d.) Lorem Ipsum Generator. Available at: <http://lorem-ipsum.perbang.dk>. [Last Accessed 28<sup>th</sup> October 2017], [online].

Philips (2017) Philips Global Sleep Survey. Available at: [https://www.sleepapnea.com/worldsleepday/sleep\\_survey\\_report-2017.pdf](https://www.sleepapnea.com/worldsleepday/sleep_survey_report-2017.pdf). [Last Accessed 19th October 2017], [online].

*Pinterest* (n.d.) Explore Iphone Mobile, Mobile App and more!. Available at: <https://www.pinterest.co.uk/pin/510173464012434081/>. [Last Accessed 20th October 2017], [online].

*RSA* (2017) Sleep Matters 02. Available at: <https://www.thersa.org/globalassets/pdfs/sda-briefs/sda17-18-brief-2-sleep-matters-final.pdf>. [Last Accessed 19th October 2017], [online].

*Renkman* (2014) Hidden clock features found on the iPhone 6 Plus. Available at: <http://isource.com/2014/11/15/hidden-clock-features-found-on-the-iphone-6-plus/>. [Last Accessed 19th October 2017], [online].

*Sleep Cycle* (n.d.) Sleep Cycle alarm clock. Available at: <https://www.sleepcycle.com/images/logotypes/>. [Last Accessed 19th October 2017], [online].

*Sleep Cycle* (n.d.) Sleep Cycle alarm clock. Available at: <https://www.sleepcycle.com/images/ios/>. [Last Accessed 19th October 2017], [online].

*Sleep Health Foundation* (2016) Technology and Sleep. Available at: <https://www.sleephealthfoundation.org.au/public-information/fact-sheets-a-z/802-technology-sleep.html>. [Last Accessed 30th November 2017], [online].

*Sleep Org* (n.d.) Sleep and Stress. Available at: <https://sleep.org/articles/sleep-and-stress/>. [Last Accessed 19th October 2017], [online].

**THE REFERENCES FOR THE CODING/DEVELOPMENT WORK IN ‘XCODE’ WILL BE INCLUDED IN THE DOCUMENT WHICH HAS BEEN MENTIONED IN THE PREVIOUS SECTION.**

**THIS IS THE END OF THE DOCUMENT**