9:41 AM
100%
WELCOME
MySupportBuddy
REGISTER
LOGIN

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PROJECT OVERVIEW

1 in **10** people in the UK have dyslexia

MySupportBuddy is a mobile application (app) for young adults that struggle with dyslexia, which is a common, specific learning difficulty. According to the NHS (2018), teenagers and adults with dyslexia mainly struggle with planning, writing, reading, remembering things, spelling and expressing what they want to say. Therefore, this app offers help in these main areas that the user finds most difficult and has the option to go to the following pages: memory, problem solving, spelling, vocabulary, planning, reading and writing. Further, if the user is unsure what they struggle with the most or wants to check whether or not they have dyslexia, then MySupportBuddy has an unofficial test that the user can take and the results will advise the next best steps to take, such as which section of the app will be most useful.

In order to assist in improving a user's memory, problem solving skills and spelling, the app offers mini brain-training games that aim to make learning more enjoyable. A messaging service is provided and can be accessed on every page in the app, which creates a community involving dyslexic people and/or tutors who can share their struggles and recommend strategies to improve. Further, as different people find certain colours help them read easier, there are customisable settings that the user can tailor to their preference, such as the colour of the background, the font size and colour of the text.

BIBLIOGRAPHY [5]

KEY
SELLING POINTS

CONNECTING SIMILAR PEOPLE
Unlike competing apps, MySupportBuddy offers users a chance to chat to other users who also struggle with dyslexia and have experienced similar problems. This is a great way to create a community of similar individuals who can share their techniques and ask others any problems they have.

CUSTOMISABLE
The user can customise their app to the font color, size and background colour that they desire. Also, if the user can read better in greyscale then this is easily an option too.

EASY NAVIGATION
The interface of the app is very clear and easy to use as it offers clear buttons with labels on that explain where the user would go if they press it. Also, on each page there are shortcuts to the chat and settings pages to make it as efficient as possible for the user.

TREATS SYMPTOMS & EDUCATES
MySupportBuddy offers users mini brain training games, to support with spelling, memory and problem solving, along with relevant and contempory tools that assist with reading and writing, vocabulary and planning. Also, if the user is unsure which area they struggle with the most or if they even have dyslexia, the app has a test that they can take which will inform them further.

COMPETITOR ANALYSIS 1

INKU

an app which helps users write their notes without spelling errors and enhances their vocabulary.

STRENGTHS

There are many different features that are customisable e.g. sophisticated word and phrase prediction, which learns the user's pattern of use, making writing faster. Also, a speech-to-text function along with five language dictionaries and seven academic dictionaries built in. The app can spell check the whole document and allows user to choose which words they would like to replace with. The academic dictionaries give the user subject specific terminology including maths, engineering, sociology and the sciences. It offers three levels of spelling help, which is good for all ages and levels of skill.

WEAKNESSES

Only for people who benefit from preparing on iPhone/iPad before i.e. doing University work. The app doesn't provide folders to save documents by topic or subject.

OPPORTUNITIES

User can choose word prediction in line with the text or above keyboard prediction - the in line word prediction might be easier to visualise with the sentence but the keyboard make it quicker. Voice recognition tool is a great way to make sentences quicker if the user struggles with writing, however, this function is very slow so could improve here and this is something that MySupportBuddy will have functioning to a high standard.

THREATS

There is no free version and costs £14.99, which will put people off buying it, especially students and they will be tempted to try find a free alternative, therefore, MySupportBuddy will be free as it is targeted at young adults and students. It is better for iPad than smartphone as you need a larger keyboard, which some people may not own.

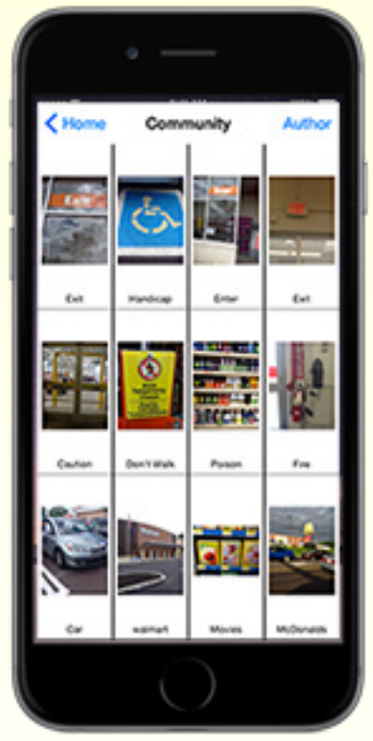
COMPETITOR ANALYSIS 2

MYTALKTOOLS MOBILE

an app which enables students with communication difficulties to say what they want, using a sequence of words, sounds and images.

STRENGTHS

Helps people who struggle with communication able to sequence words, sounds and images which can form complete sequences. It allows users to add their own images so the user can make it personal to them, which might help them familiarise and make the connection in their head. It is easy to create your own communication board. They have a back-up workspace so the user can ensure that their data will be saved if they ever lose their device.



WEAKNESSES

The app interface is very basic and outdated. It is hard to click on things and it takes time. Tutorial is spoken and long-winded. Users have to use the desktop version to access any help/sample assets. When you play a sound but press back, the talking continues. On the free version, there is only one sound/sentence option to play and it has a picture of the owner's son on which seems unprofessional and personal. The app also crashes often, therefore, the developers must not constantly check the app for bugs which could lose many users.

OPPORTUNITIES

Communication boards. Offers support but via email, but this is quite outdated and would be a lot more efficient to have a chat function or forum on the app, which MySupportBuddy offers. Although, they allow users to create and share libraries of boards, cells, or other media with family and professionals which is a good idea.

THREATS

They have a free version which does not offer the user many features and you can get a 30-day free trial, but to get full access to all of the components you must buy one that's £99.99 and another called '+speech' which is £179.99. This is a lot of money for an app that does not look that visually appealing or have easy navigation.

COMPETITOR ANALYSIS 3

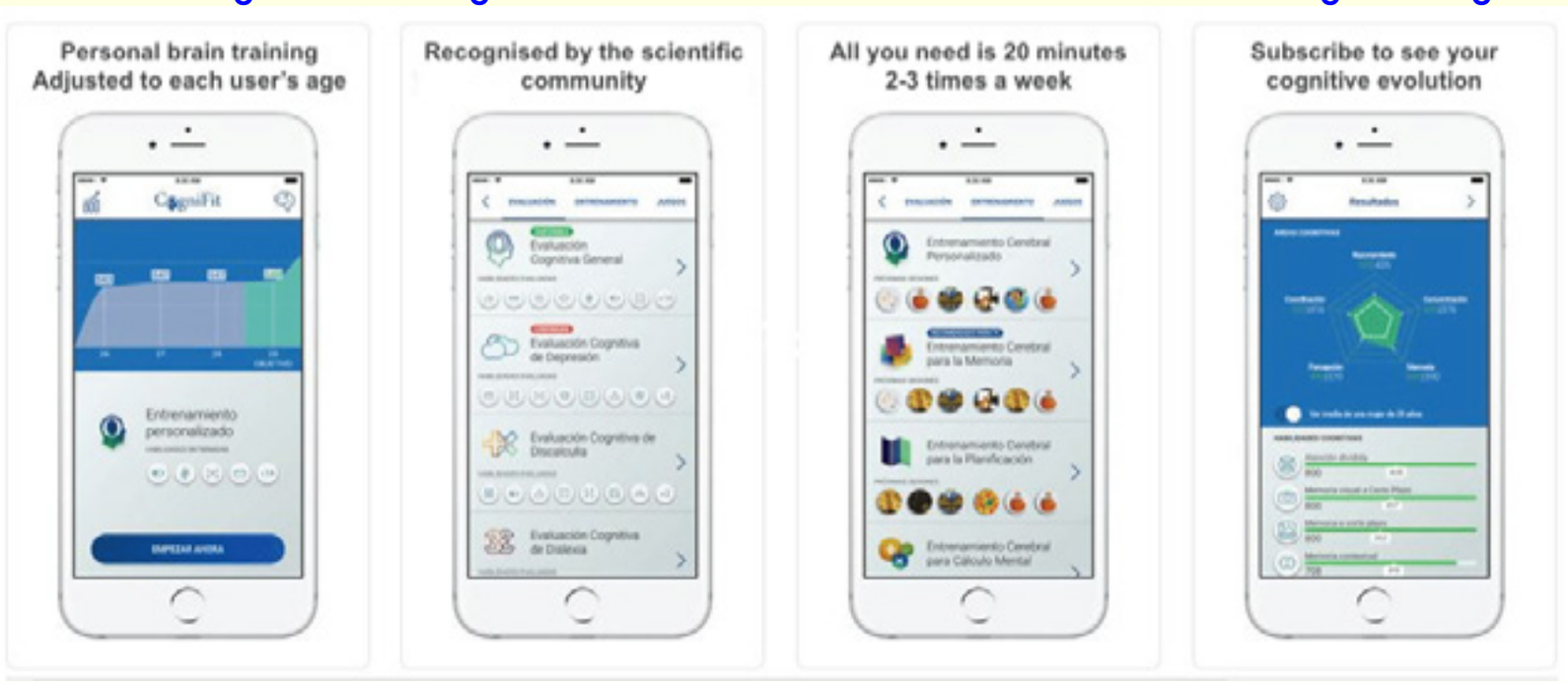
CogniFit

COGNIFIT DYSLEXIA

an app designed to help screen cognitive impairment related to dyslexia, and to help train, through clinical exercises

STRENGTHS

It offers a dyslexia test and activities which help to treat the symptoms, improve their reading and writing skills, enhance concentration, learning agility and academic performance. The games are designed to strengthen the connectivity of the neural networks involved in language processing. Exercises are personalised and adapted to the age and unique aspects of each user. Smooth transitions when tapping around.



WEAKNESSES

Can't access much on the free version, it gives sample data to make the user want to buy to get their own results. For each of the games, it doesn't state which game is good for what symptoms so users will not know which is best for them to play.

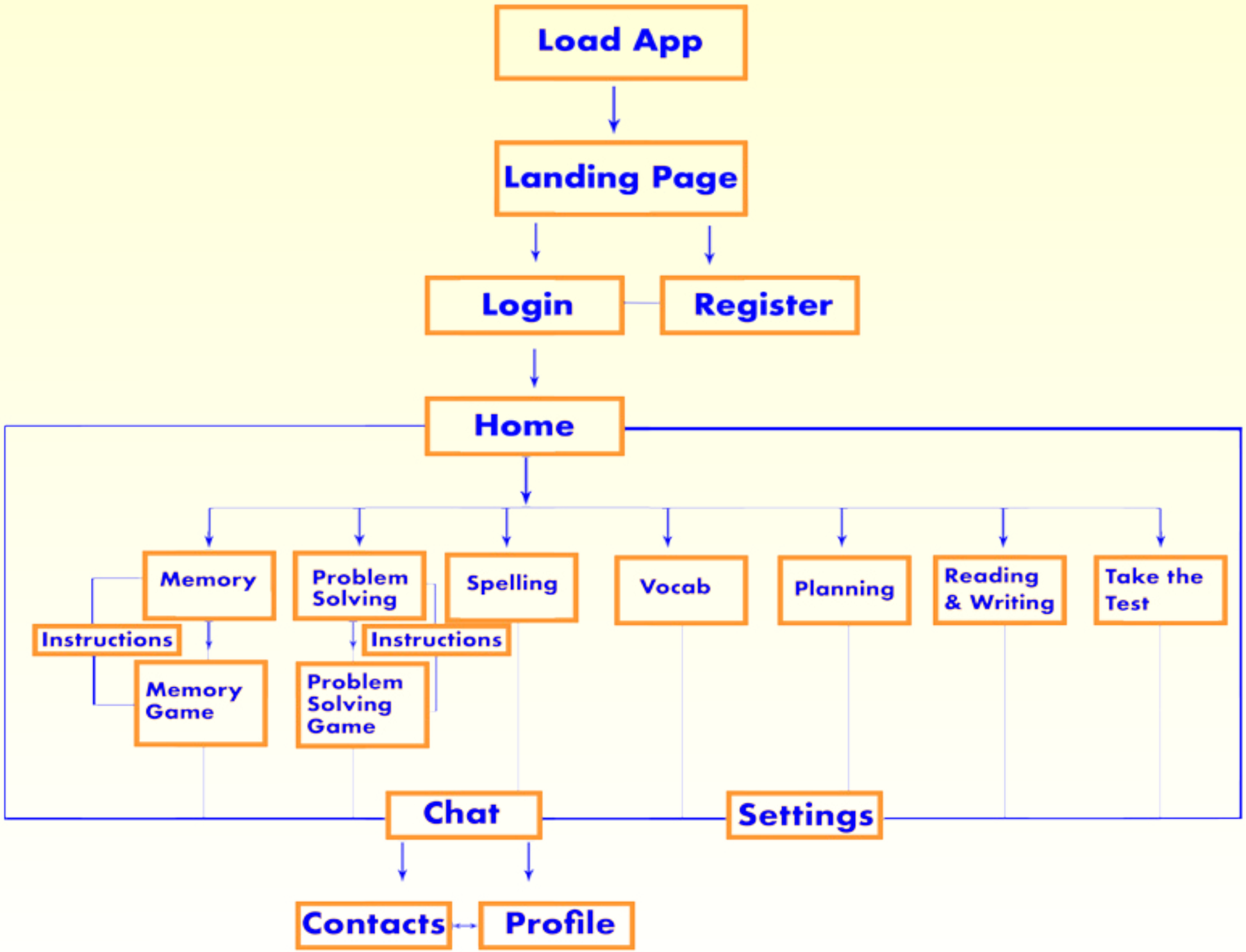
OPPORTUNITIES

They only have 3 free games, so could improve by making make more free. The news section is a great idea, however, they have only posted 4 times since 2016 – September 2018 so this could be updated more frequently with relevant research. No community available so this is something MySupport-Buddy will offer so users can discuss their problems and help others.

THREATS

CogniFit offers the following subscriptions: £19.99 per month or £89.99 per year. This is a lot of money and the user will not benefit anything from the free version so would have to buy.

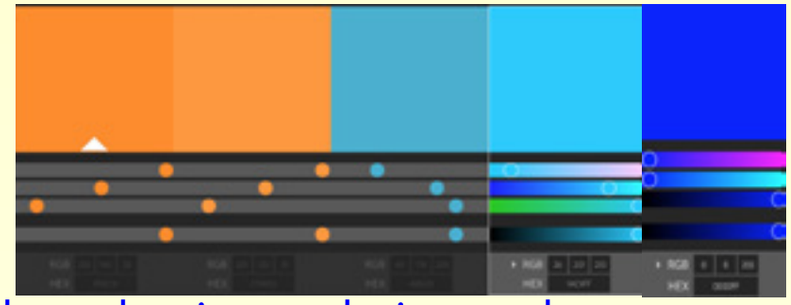
STRUCTURE


Load App
Landing Page
Login
Register
Home
Memory
Problem Solving
Spelling
Vocab
Planning
Reading & Writing
Take the Test
Instructions
Memory Game
Instructions
Problem Solving Game
Chat
Settings
Contacts
Profile

DESIGN & CONCEPTUAL WORK

MySupportBuddy has a simple and consistent layout, which makes it easier for a user with a learning difficulty to navigate around an app (Drigas and Kokkalia, 2016)

COLOUR PALETTE



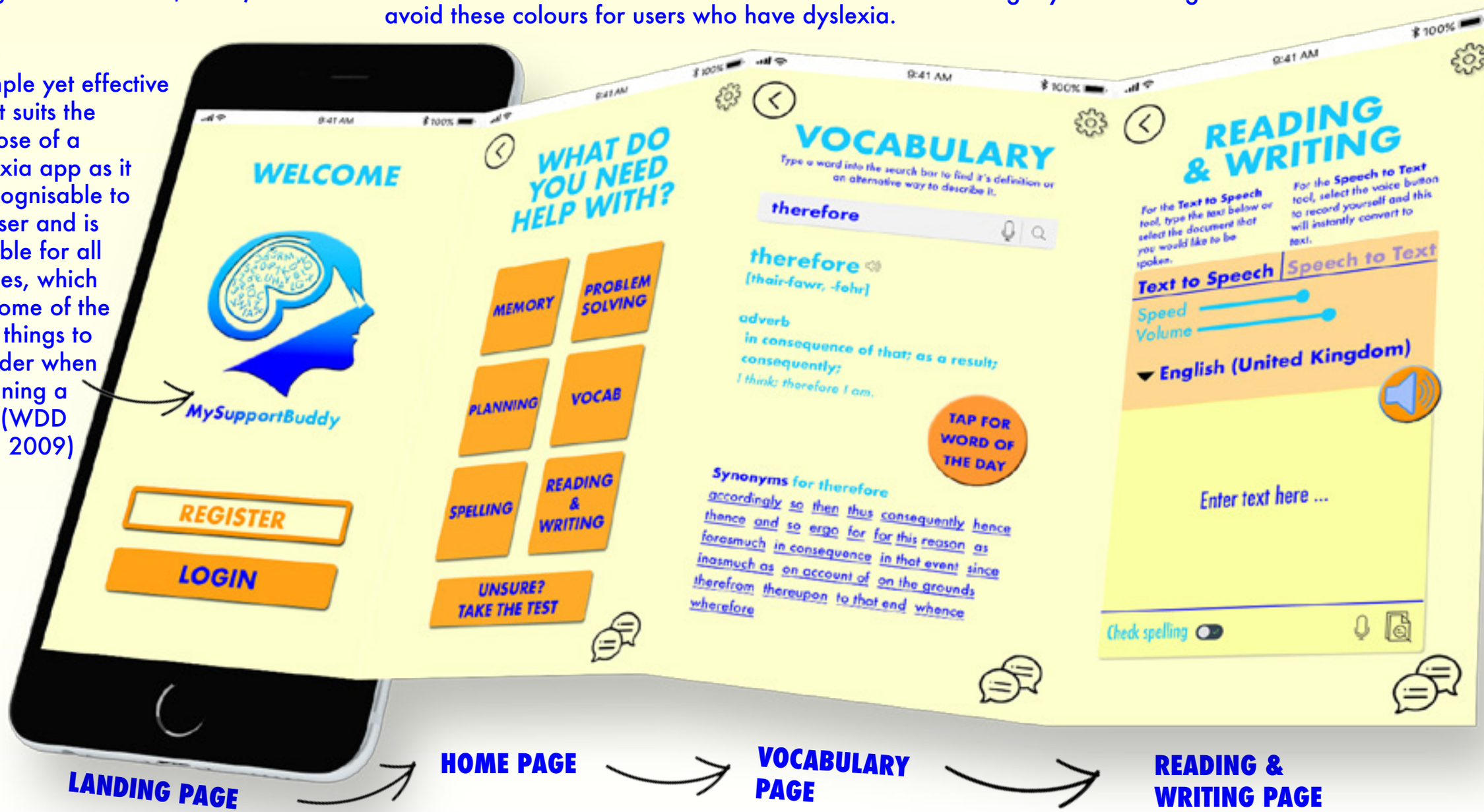
The colour palette is created using complementary colours and avoids greens, reds and pinks as the British Dyslexia Association's guide (BDA, 2018a) states to avoid these colours for users who have dyslexia.

TYPOGRAPHY = Futura

The British Dyslexia Association's Style Guide (BDA, 2018a) explains that a plain, evenly spaced sans serif font should be used to make it easier for a dyslexic reader. Therefore, 'Futura' is used throughout as it is a geometrix sans serif font. Also, the font size for anything written should be at least 12-14 point and the colour of the text should be dark on a light (not white) background. Which is why dark blue text on a light yellow background is chosen for this app.

LOGO

Is simple yet effective and it suits the purpose of a dyslexia app as it is recognisable to the user and is scalable for all devices, which are some of the main things to consider when designing a logo (WDD Staff, 2009)



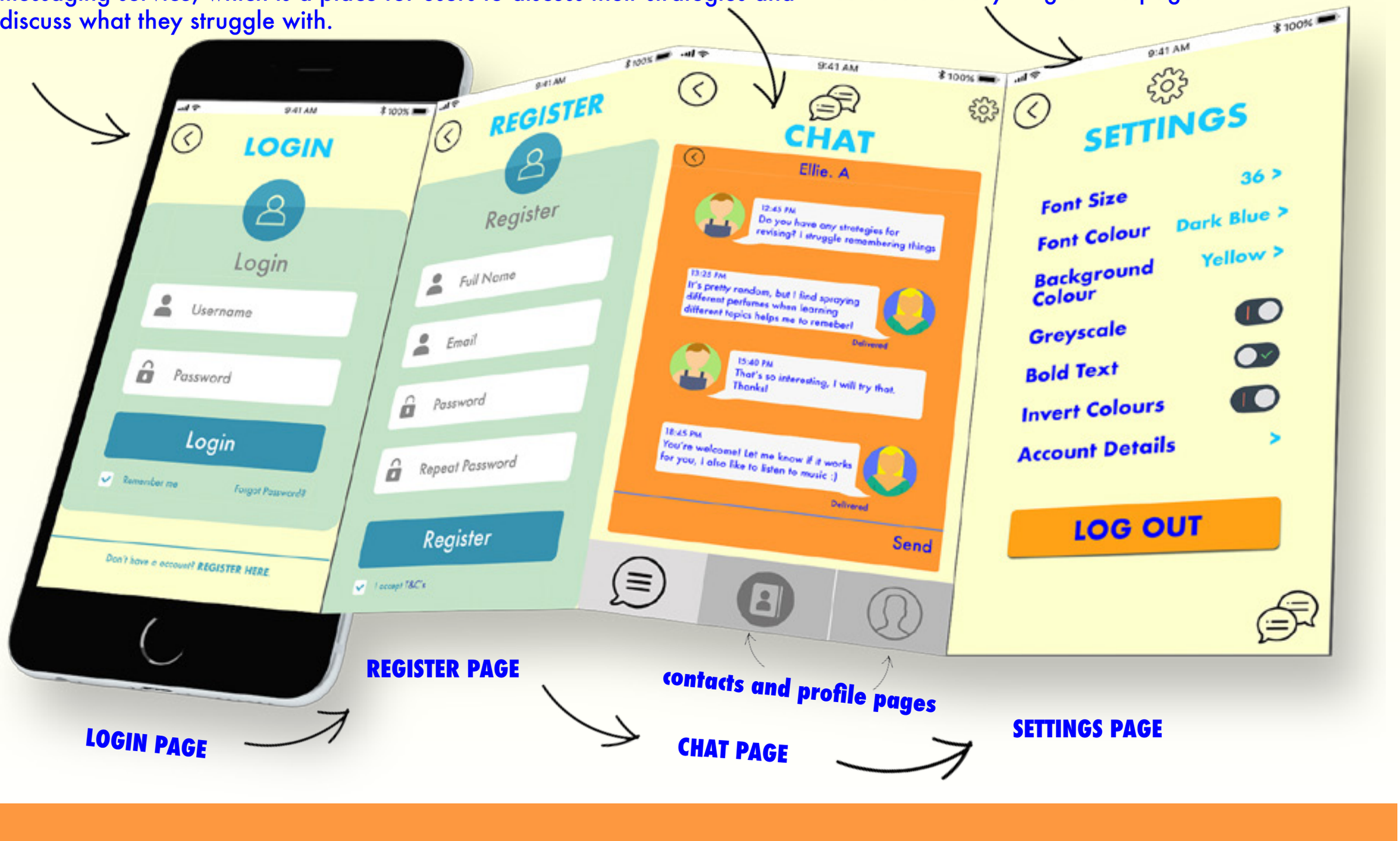
LANDING PAGE → HOME PAGE → VOCABULARY PAGE → READING & WRITING PAGE

BIBLIOGRAPHY [1] [2] [4] [8]

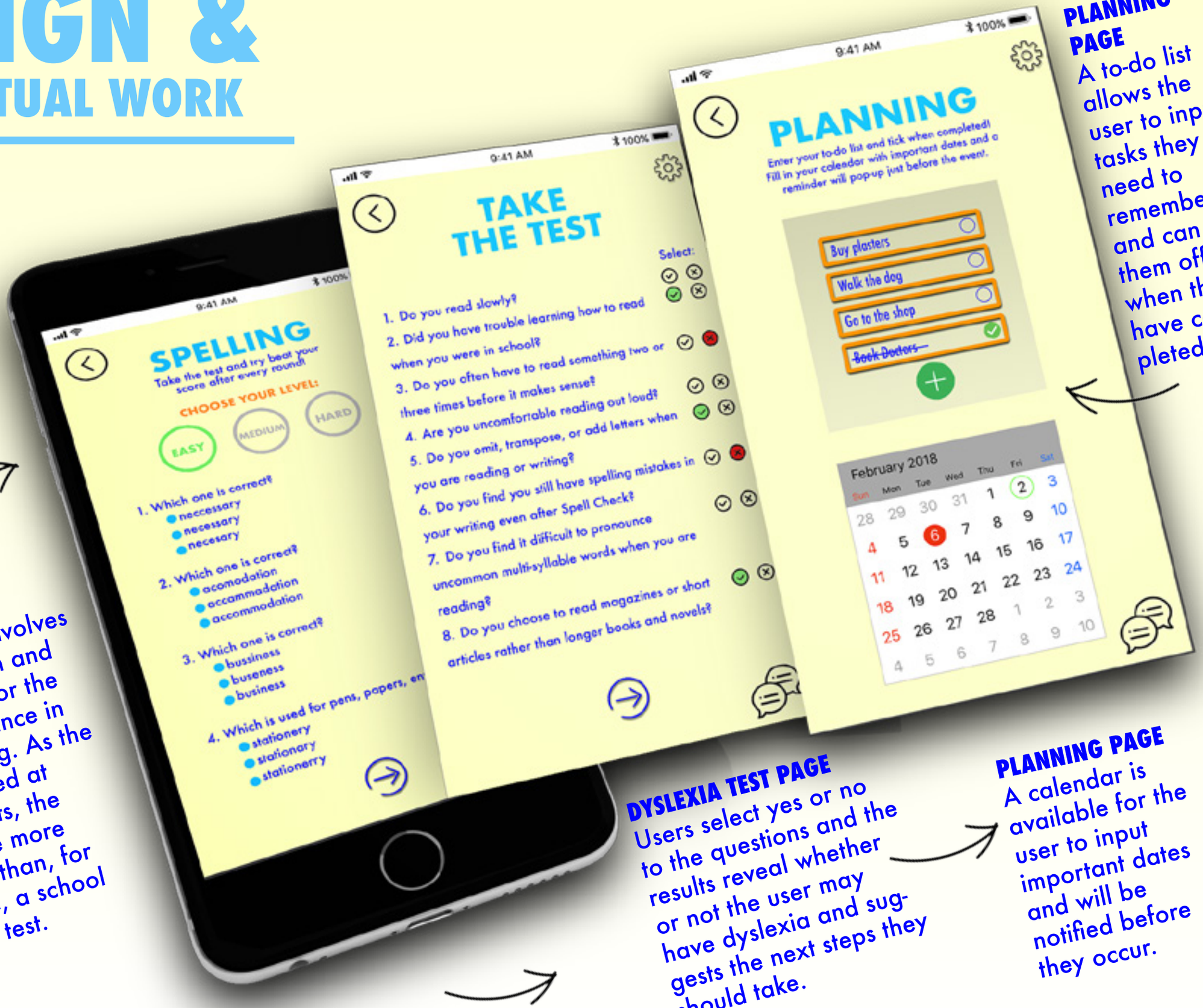
DESIGN &
CONCEPTUAL WORK

The user must login to save their setting preferences and be able to use the messaging service, which is a place for users to discuss their strategies and discuss what they struggle with.

Dyslexia struggles are different with everyone, and an individual may find certain colours easier to read than someone else (BDA, 2018b), therefore, My-SupportBuddy offers users the option to customise their app by changing: the font size; font colour; background colour; and everything to greyscale. Also, users can can make the text bold or invert the colours of everything on the page.



DESIGN &
CONCEPTUAL WORK



PLANNING PAGE
A to-do list allows the user to input tasks they need to remember and can tick them off when they have completed them.

SPELLING PAGE
A test which involves Easy, Medium and Hard levels for the user to advance in their spelling. As the app is aimed at adolescents, the words are more complex than, for example, a school spelling test.

DYSLEXIA TEST PAGE
Users select yes or no to the questions and the results reveal whether or not the user may have dyslexia and suggests the next steps they should take.

PLANNING PAGE
A calendar is available for the user to input important dates and will be notified before they occur.

DESIGN &
CONCEPTUAL WORK

These designs were created for Apple devices using the coding language Swift 4 in the software Xcode 10. If the app is a success, then it will be made compatible with Android devices.

The memory game consists of one of the colours lighting up which also makes a sound. The user must remember this sequence and select the correct colours in the given order. It gets harder as each level increases, adding one more colour each time.

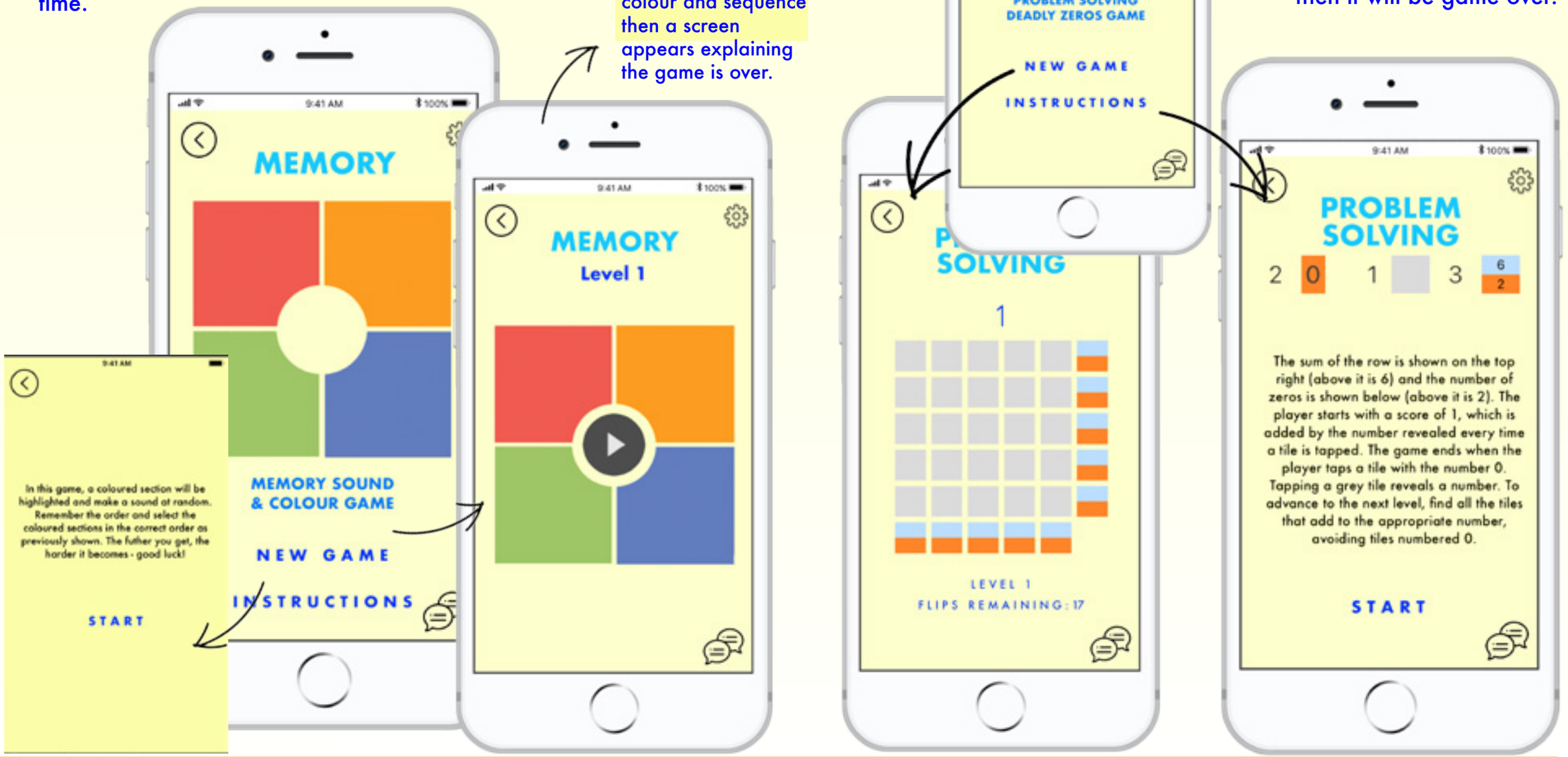
GAME OVER

PLAY AGAIN

GO HOME

When the user selects the wrong colour and sequence then a screen appears explaining the game is over.

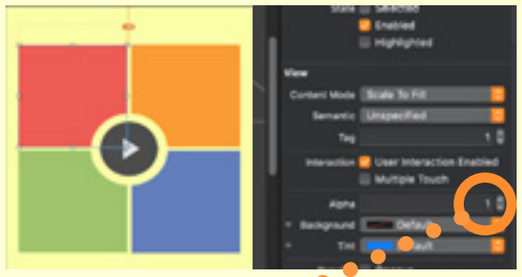
The problem solving game is a fun way to familiarise the user with adding numbers and the objective is to clear the board by selecting the numbers that add up to the given number at the end of the row (on the top). However, behind the grey squares lies some 'deadly' zeros, which if the player selects then it will be game over.

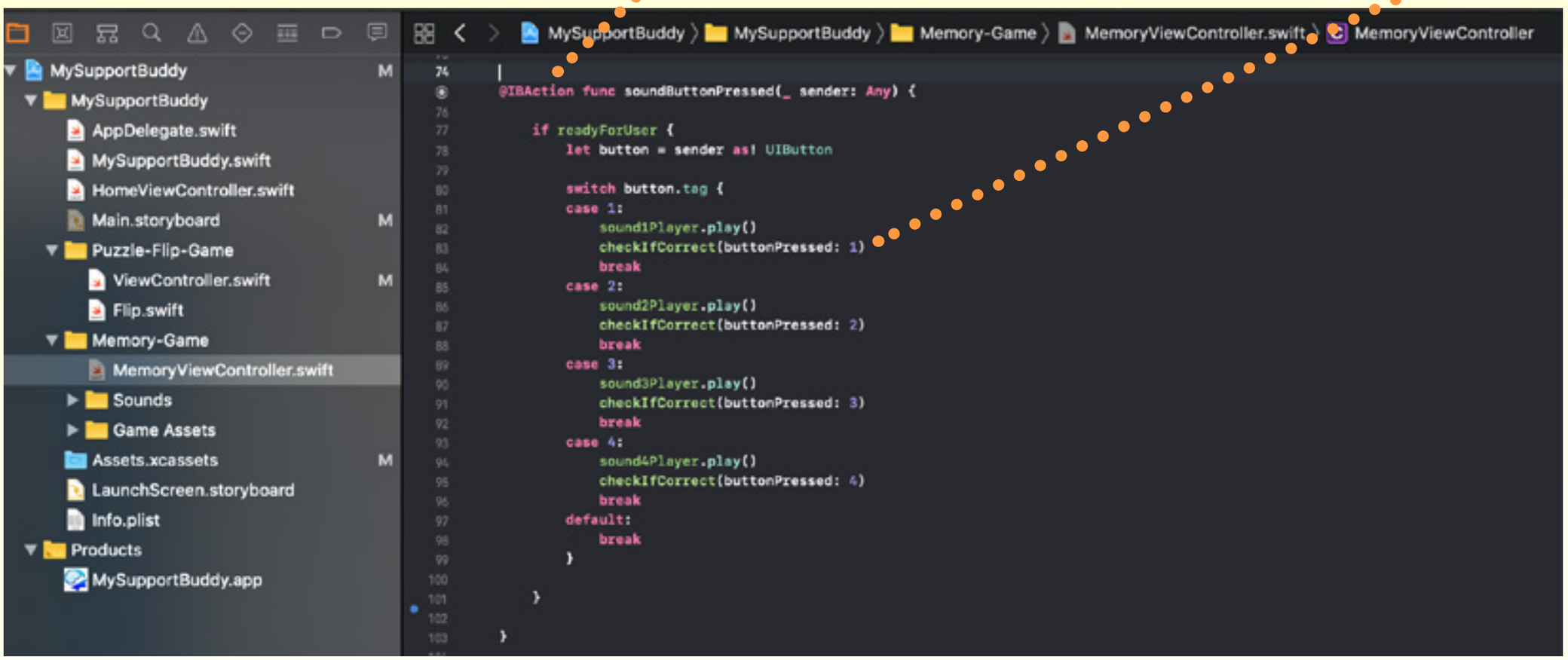


FUNCTIONALITY MEMORY GAME

Screenshot of the code created for the memory game.

IBAction connected to each of the 4 coloured 'buttons'. Distinguish between each of them by changing the 'tag attribute to 1-4. i.e. red = 1





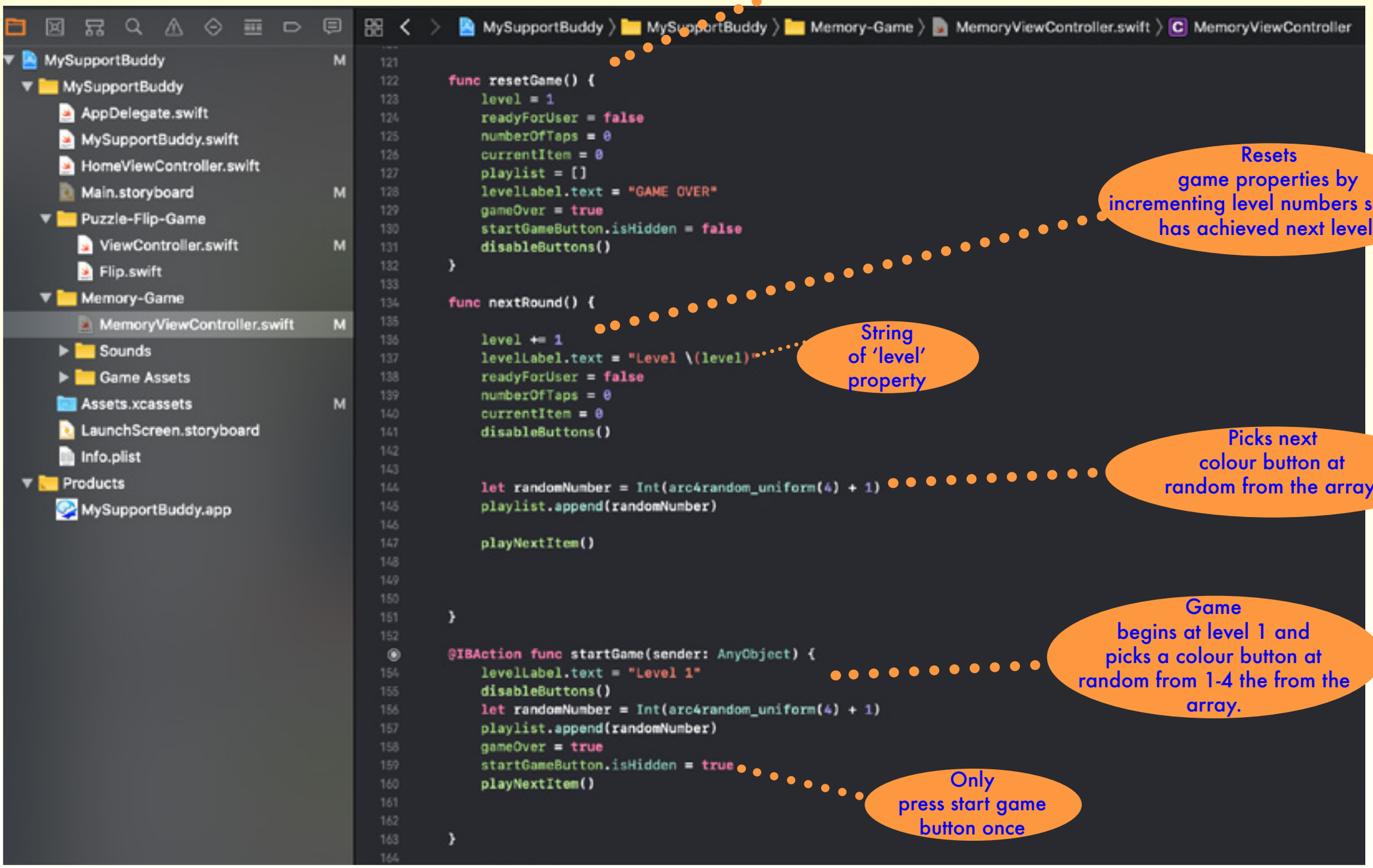

```
func audioPlayerDidFinishPlaying(_ player: AVAudioPlayer, successfully flag: Bool) {


    if currentItem <= playlist.count - 1 {
        playNextItem()
        gameOver = true

    }else {
        readyForUser = true
        resetButtonHighlights()
        enableButtons()
    }


}
```

Every-
time a sound is played
then the next item is called.

Knows
when one sound file has
been played.

Start
playing progression
to next level if buttons were
pressed in the correct order.

FUNCTIONALITY MEMORY GAME

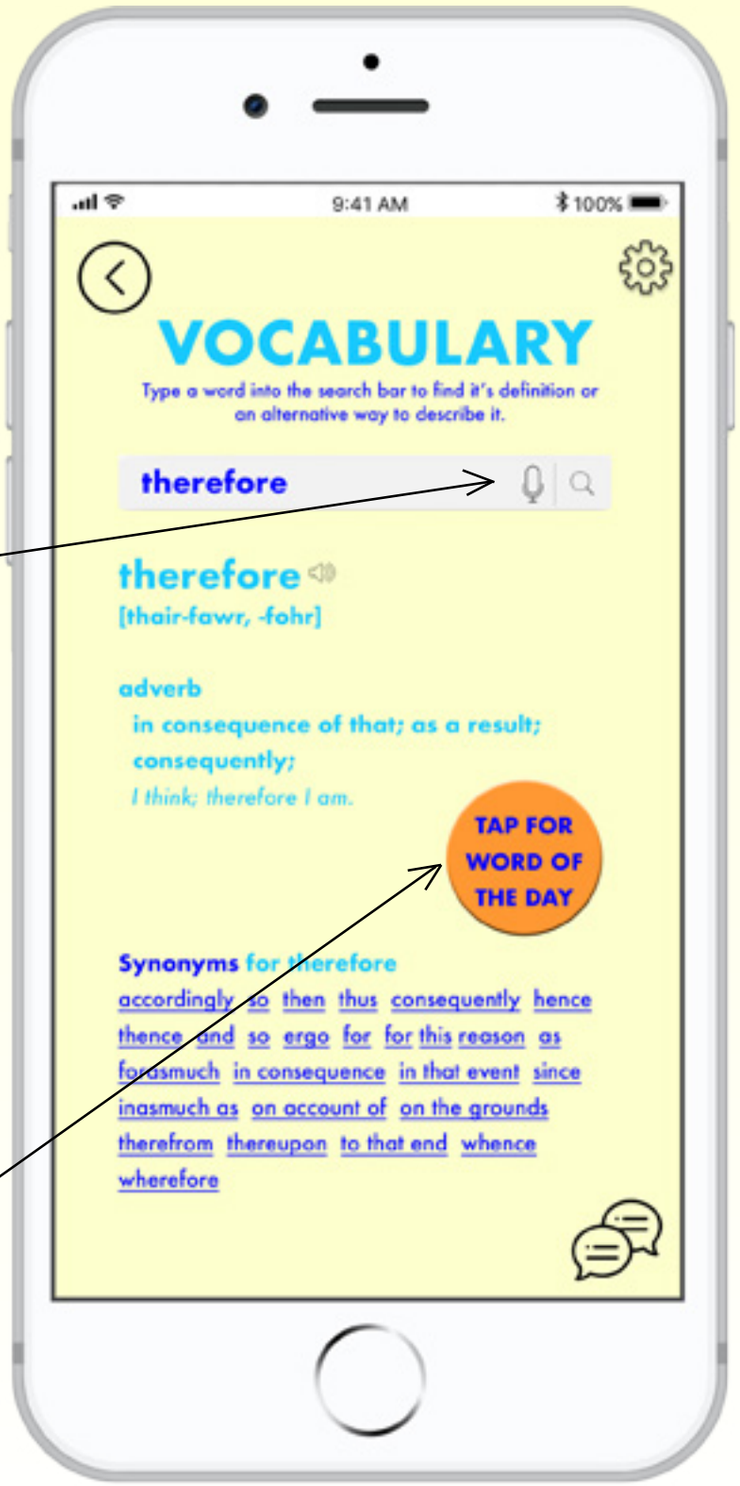


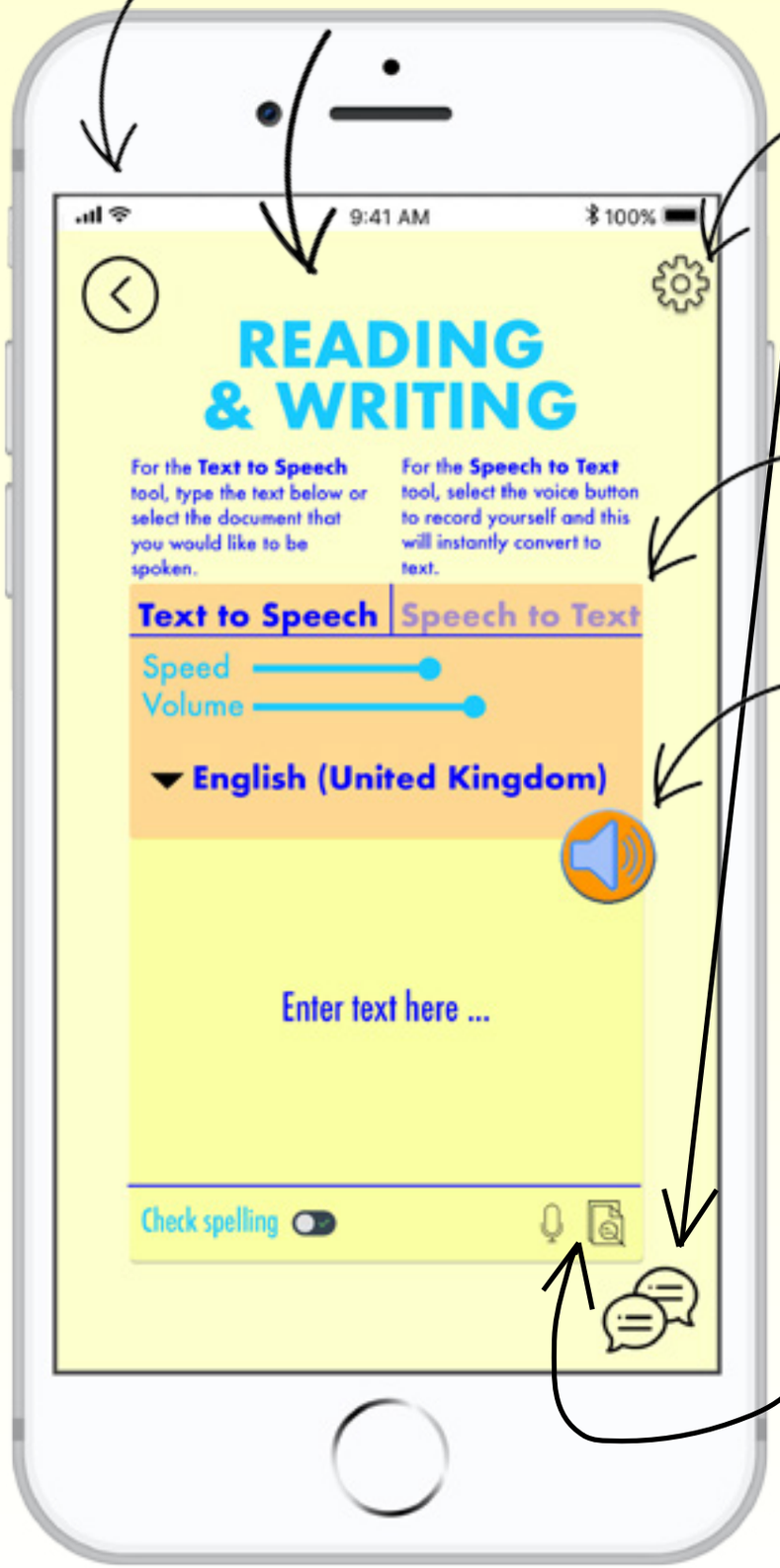
FUNCTIONALITY

Back button on every page, along with a title that helps the user familiarise themselves with which page they're on as it is vital that the navigation is self-evident to the user (Babich, 2018).

Type in or use speech recognition to enter a word then press the search bar. Both options are available here as (Rozmovitz, 1996) explained that speech recognition allows for a more direct connection between the human thought processes and the applications and should not be a replacement for the keyboard, but should compliment it. A definition and list of synonyms will appear.

There is also a button to tap for word of the day that updates each day.





Easy access to navigate to the chat and settings pages from every screen within the app.

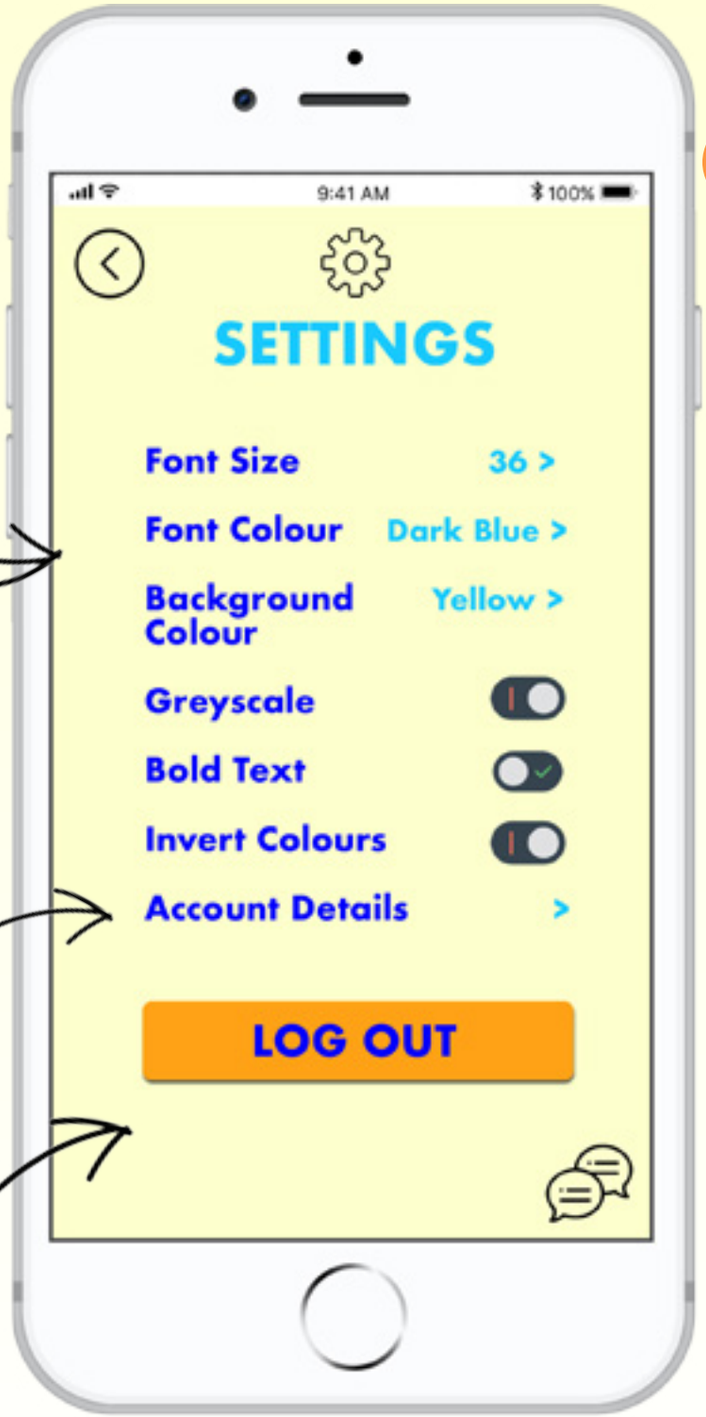
Click here for Speech to Text tool.

Click the speaker button after you have entered text and it will read what you have written.

Text to Speech tool offers speed and volume control and various different languages to attract to a wider audience. Also, the user can check their spelling, use speech recognition to type and select text from a document.

FUNCTIONALITY

The app is fully accessible as it has a clear interface, good colour contrast and not too much text that could be overwhelming, which are the key factors Stanley (2018) describes for creating good accessibility. MySupportBuddy has customisable options that allows the user to magnify the text and change colours.

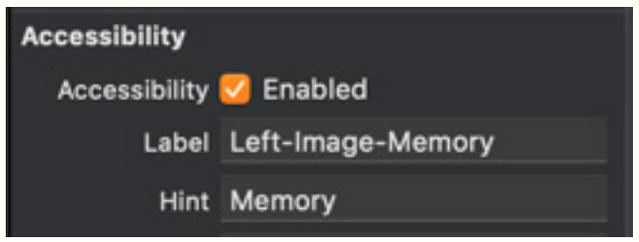


Here the user can view and manage their account details, such as, change their email address, password and privacy settings.

User can log out easily.

Accessibility Inspector shows that the invert colours works well to show the content if it is chosen by the user

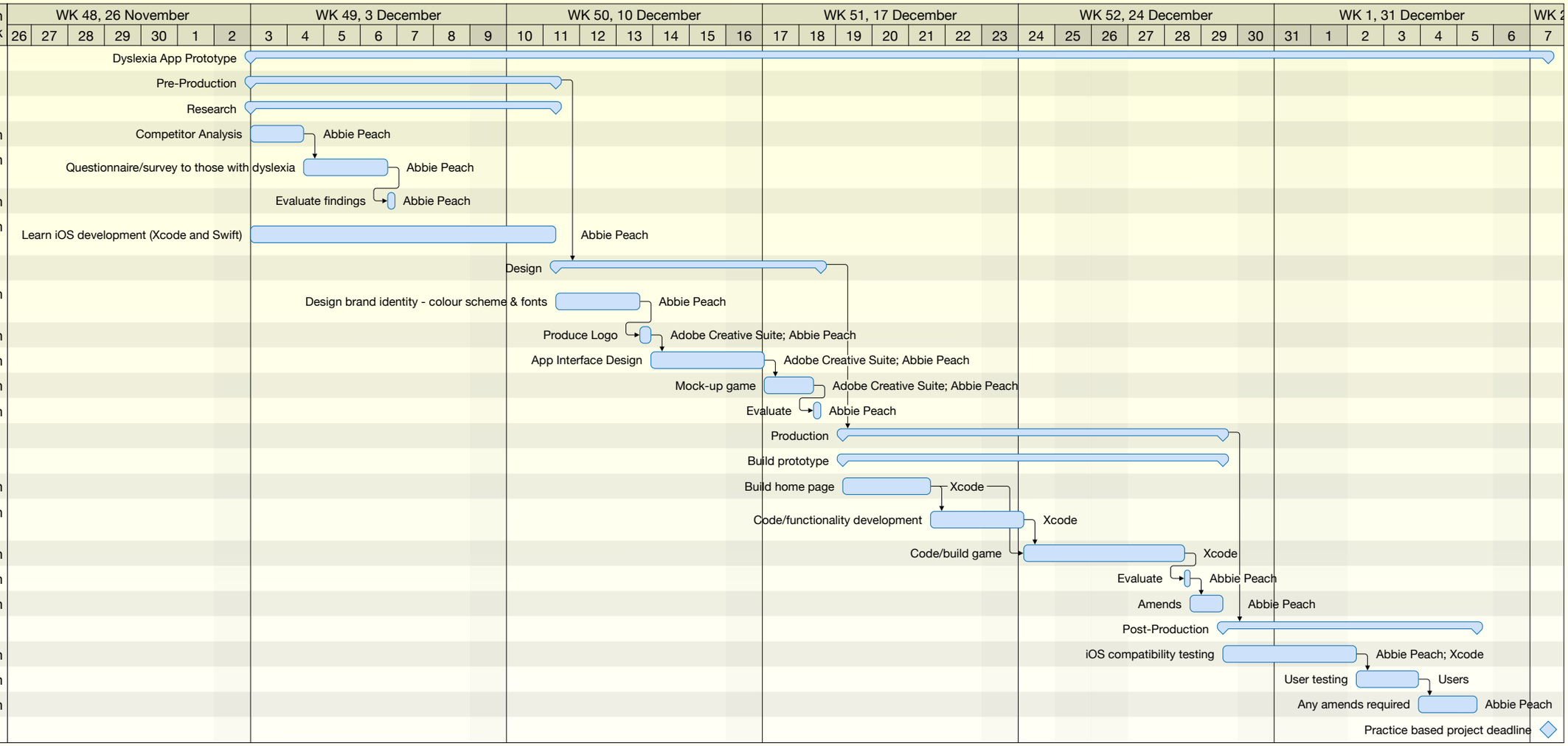
A descriptive label is written into the back end of the app's images, enabling screen reader technology to help users who are visually impaired better understand the images.



GANTT CHART

MySupportBuddy planned from start to finish including resources.

Title	Given Work
Dyslexia App Prototype	
Pre-Production	
Research	
Competitor Analysis	6h
Questionnaire/survey to those with dyslexia	5h
Evaluate findings	2h
Learn iOS development (Xcode and Swift)	25h
Design	
Design brand identity - colour scheme & fonts	5h
Produce Logo	6h
App Interface Design	15h
Mock-up game	10h
Evaluate	2h
Production	
Build prototype	
Build home page	8h
Code/functionality development	6h
Code/build game	8h
Evaluate	1.5h
Amends	3h
Post-Production	
iOS compatibility testing	2h
User testing	5h
Any amends required	6h
Practice based project deadline	



RISK ANALYSIS

Category	RISK	LIKELIHOOD	IMPACT	PROBLEM	SOLUTION
Planning	Unrealistic scheduling within given timeframe			Tasks may take longer than expected	Ensure to stick to dead-lines and gantt chart. Give enough time for testing and allow time for potential errors
Design	A similar app is released just before MySupport-Buddy is released			Potential users for this app may not be interested or they will compare and could enjoy others more	Ensure strong unique idea and brand identity. Identify any weaknesses in other competitors' project and do not do this.
	Purpose of the app may not be clear			Users will be un-sure whether or not the app will benefit them	Ensure the home page is clear and a full descrip-tion of the app will be available when down-loading on the app store.
	Design may not appeal to everyone			The app aims to appeal to all young people with a smart-phone so a simple, yet sophisticated design should be appreciated by all.	Conduct user testing with a variety of people with and without dyslexia. Users have alternative settings which they can change the colours and fonts.

RISK ANALYSIS

Category	RISK	LIKELIHOOD	IMPACT	PROBLEM	SOLUTION
Users	Users do not want to sign-up and enter their email address			Some people do not like giving away their personal information.	Make it clear that the user's information will not be shared and that they will benefit from having an account as they can use the chat feature and save settings.
	Users do not understand how to use the features			People will give up trying to use the app if they do not understand.	Ensure users are well informed on every page of the app.
	User does not have a smartphone			A smartphone is necessary to use the app.	If the app is a success then it could be made into a desktop version.
	Users do not feel they are benefitting from the app			If users feel the app is a waste of time then they will discontinue using it.	Research how target age range audience will best benefit and improve app if there is any construc-tive user feedback.
Technical	Bugs in code			The app may crash and result in users no longer wanting to use the app.	Ensure there is a lot of testing before the app is published and fix any errors.
	Hardware/ software failure			All work could be lost and project will be delayed	Ensure hardware/soft-ware is up-to-date and save project continuously, along with constant back-ups.

FEE BREAKDOWN

EMPLOYEES

Profession	Hourly wage (£)	Hours worked	Cost (£)
Project Manager	25	116	4,500
Researcher	30	13	300
App Developer	30	51	3,240
Graphic Designer	25	38	2,250
Product tester	25	7	250
		TOTAL	10,540

EQUIPMENT

Equipment	Cost (£)
Adobe Creative Suite	652 (per year)
App License	99 (per year)
Macbook Pro	1,200
Xcode	99 (per year)
TOTAL	2,023

£12,563

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