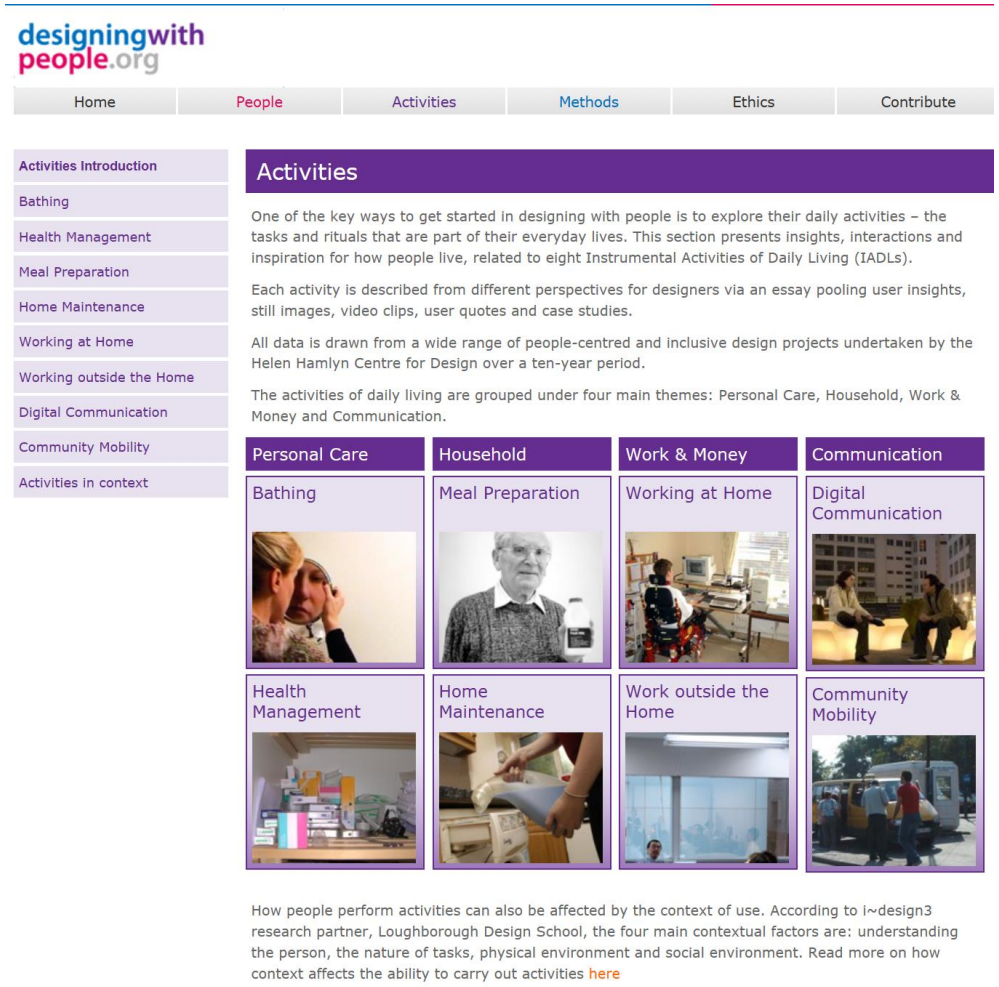
User Experience Design
M5X01239

Daniel Hancock
P144646

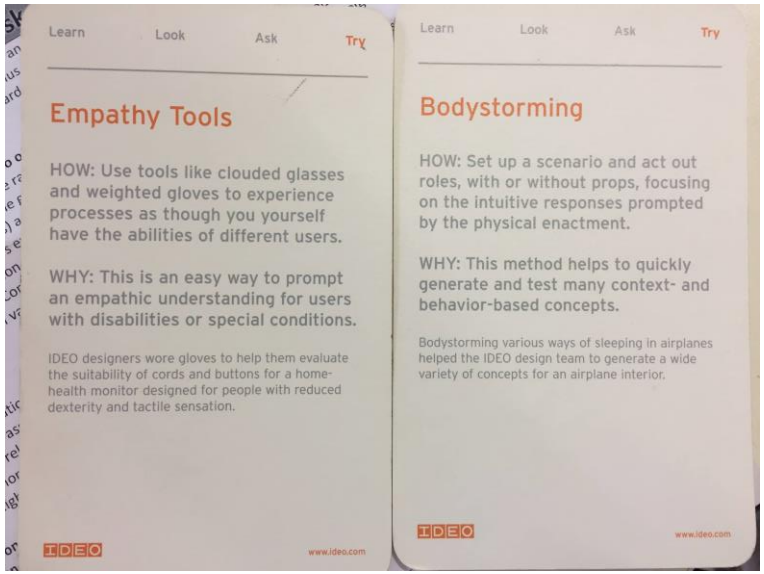
MDes/BA [Hons) Product Design

Beginning Group Work

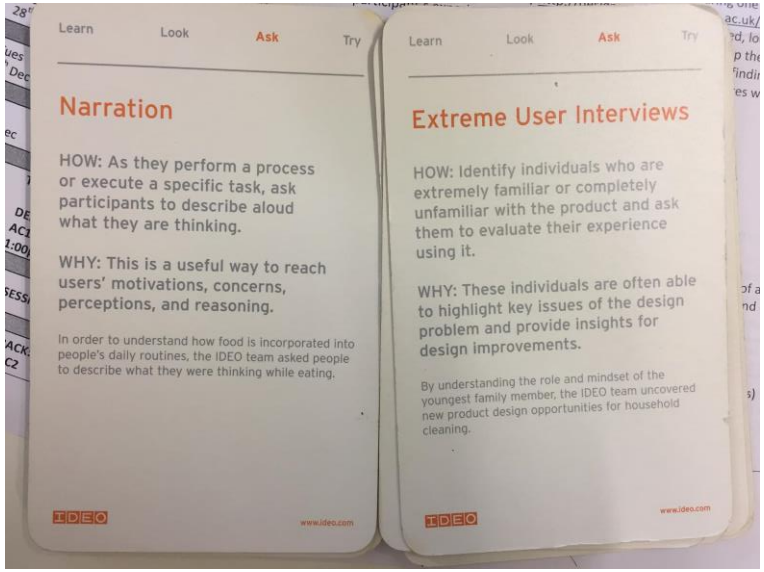


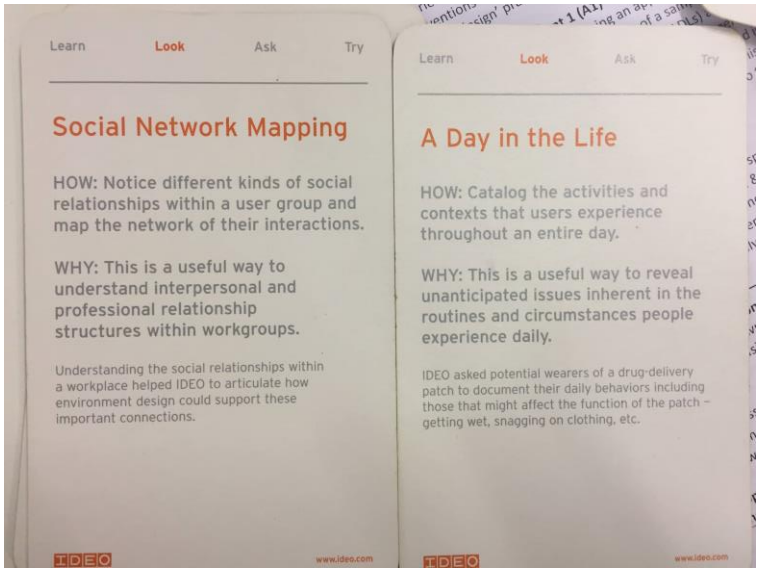
To begin this project we were set the task to look at this website designingwithpeople.org and out of these 8 areas select one. The one that I selected was digital communication. We were then placed in groups and once in our group we set the task of beginning our group research.

Research Techniques



To begin our group work we looked at a set of cards with variable research techniques. Thought this projects research I will be using a vary of these techniques.





Areas of Digital Communication

Creating A Questionnaire

1. Personal Identifiers

Age

Gender

Country of Residence

Nationality

Ethnicity

Occupation

Do you have any disabilities? If so, what are they?

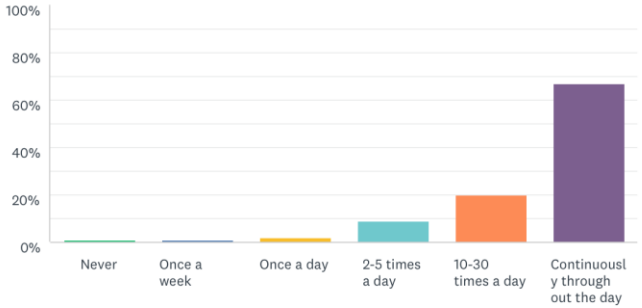
To understand the publics relation with digital communication we set the task of creating a questionnaire. After setting it up using survey monkey as a group we decided to publish the questionnaire by using Facebook. We then knew that the people undergoing the survey understand digital technology and would have a wide age range due to Facebook growing in popularity of age.

2. Which digital communication devices do you own?

- [ ] iPhone
- [ ] Samsung Smartphone
- [ ] Other Smartphone
- [ ] Mobile phone, not considered a smartphone
- [ ] Laptop
- [ ] Tablet
- [ ] Desktop Computer
- [ ] Gaming Console
- [ ] Smart Watches
- [ ] Fitness Watches
- [ ] Home Automation System (Example: Alexa)
- [ ] Other (please specify)

How often do you use your smartphone or mobile device?

Answered: 100 Skipped: 0

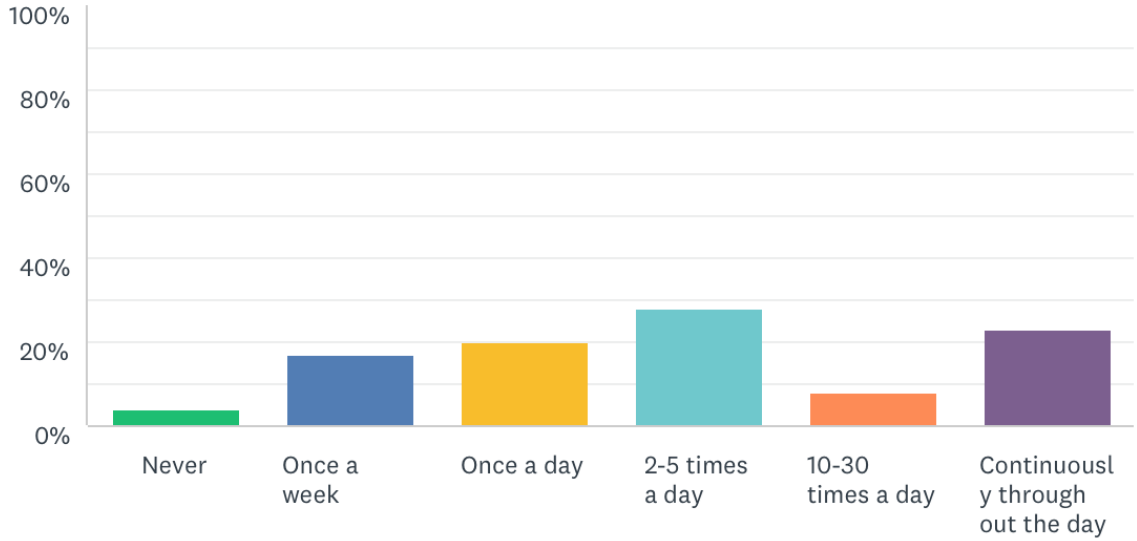


3. How often do you use your smartphone or mobile device?

- ◯ Never
- ◯ Once a week
- ◯ Once a day
- ◯ 2-5 times a day
- ◯ 10-30 times a day
- ◯ Continuously through out the day

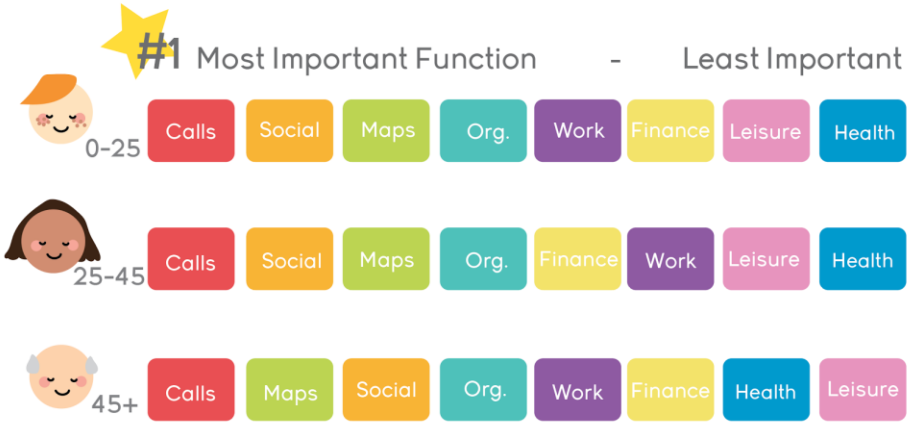
How often do you use your laptop or desktop computer?

Answered: 100 Skipped: 0



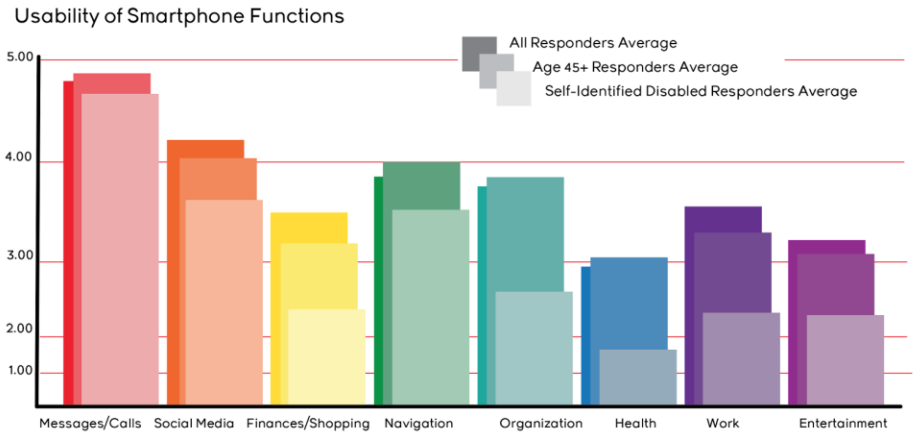
4. When using your smartphone or mobile device, how important are the following functions?

	1 (Least Important)	2	3	4	5 (Most Important)
Messages/Calls	○	○	○	○	○
Social Networks/Media Sharing	○	○	○	○	○
Finances/Shopping	○	○	○	○	○
Navigation/Information	○	○	○	○	○
Organization/Reminders	○	○	○	○	○
Health/Fitness	○	○	○	○	○
Games/Entertainment	○	○	○	○	○
Business/Education	○	○	○	○	○



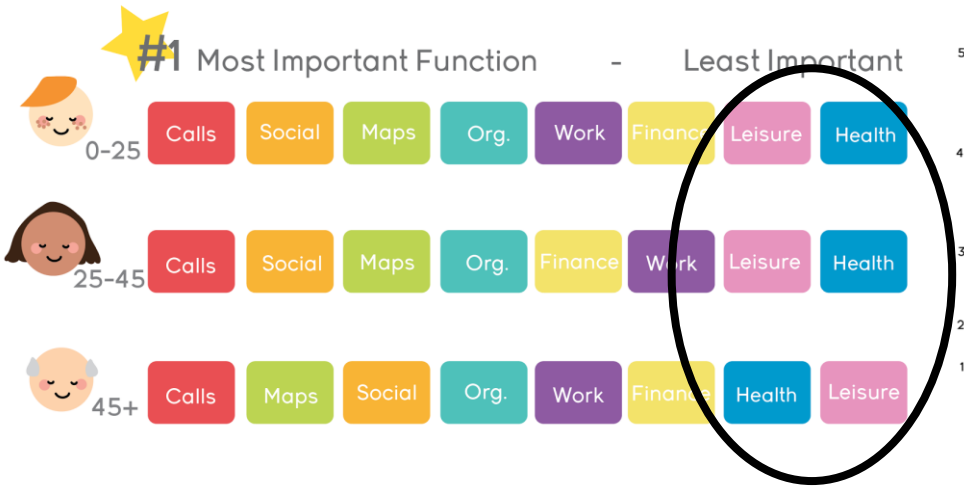
7. When using your smartphone or mobile device, which function is the easiest to use?

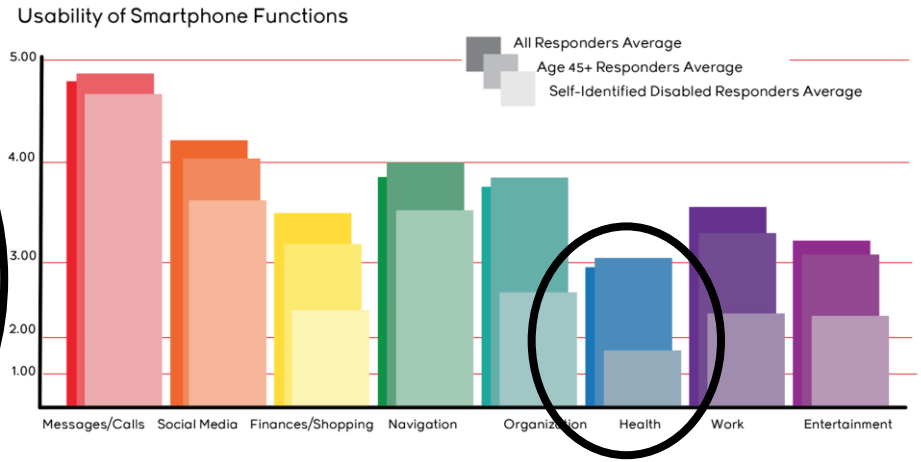
	1 (Most Difficult)	2	3	4	5 (Least Difficult)
Messages/Calls	○	○	○	○	○
Social Networks/Media Sharing	○	○	○	○	○
Finances/Shopping	○	○	○	○	○
Navigation/Information	○	○	○	○	○
Organization/Reminders	○	○	○	○	○
Games/Entertainment	○	○	○	○	○
Business/Education	○	○	○	○	○

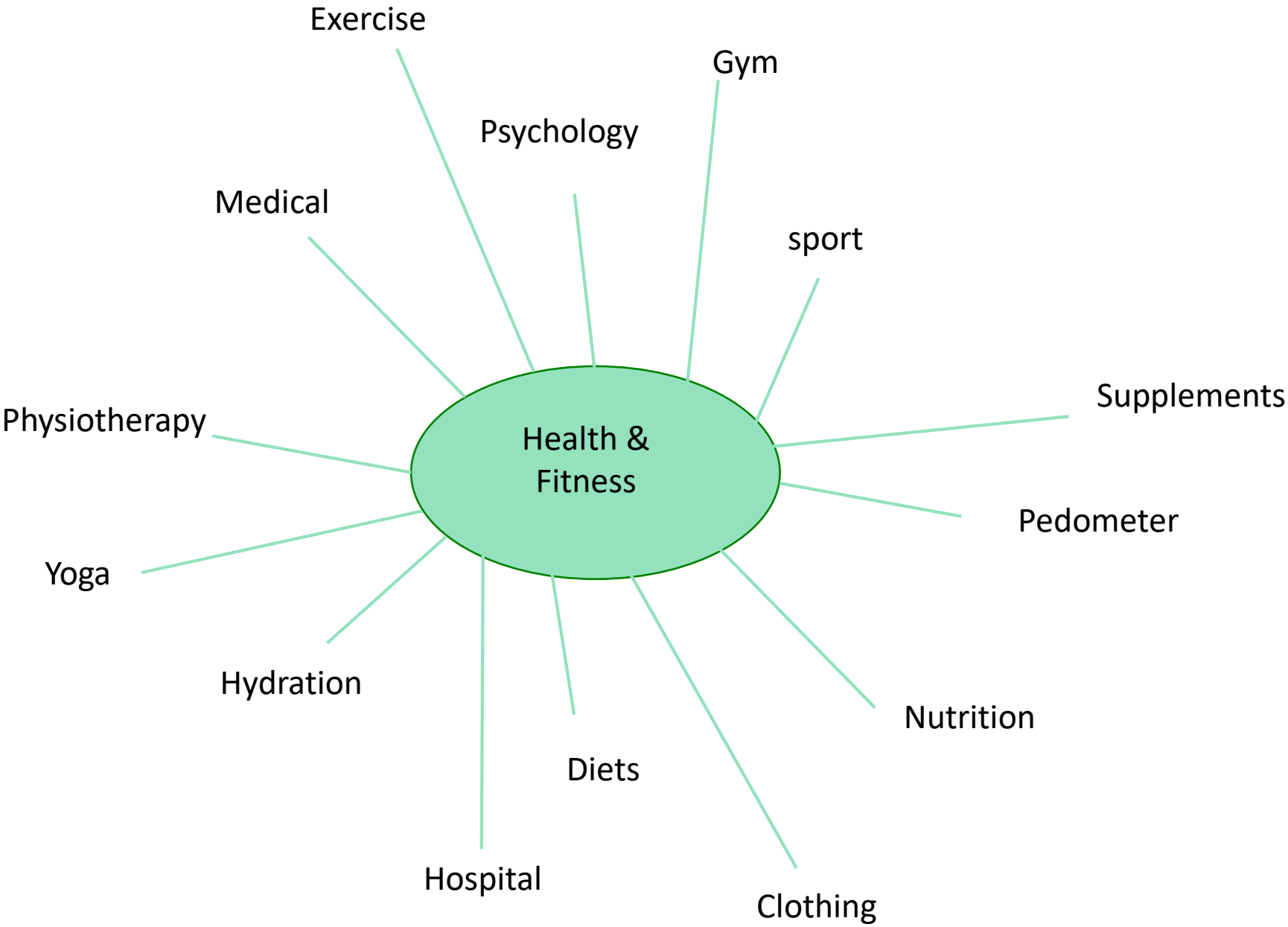


Findings

After conducting the questionnaire research in our group once the results came in we could analyse them in our own way. What caught my eye was that health and fitness was low in how important it was to each user. However it was also the lowest in function of easiest to use. Due to it being low in ease of use this can affect how we use it and how important it can become to us. Therefore I aim to design an app that is related to a health and fitness section that is easy to use. With it being easier to use I will attempt for it to become a more important aspect in our lives as human beings.






Health & Fitness
Exercise
Gym
Psychology
Medical
sport
Supplements
Physiotherapy
Pedometer
Yoga
Hydration
Nutrition
Diets
Hospital
Clothing

Physiotherapy

After evaluating each aspect of health and fitness, there is one clear gap in the market that hasn't been fully fulfilled yet. Physiotherapy is something that every 1 in 3 will need. From top class sports stars to your grand dad everyone has the possibility of needing to see a physiotherapist. With the help of doctors and physiotherapists these wrongs can be amended back to health.

There are currently a limited number of apps that are related to physiotherapy available on the app store. There is obviously a current gap due to the lack of apps available. My aim is to talk to a physiotherapist and discuss what is needed to help their job and the patients recovery become easier in any way using digital communication.

Talking To A Physiotherapist

To understand issues that can occur in the physiotherapy departments I visited my local hospitals physiotherapy department. Talking to Ffion one of the physiotherapist in the hospital I could gather more knowledge about what issues she personally encounters with her patients.

Q. How long have you been a physio therapist?
A. 6 years

Q. How many patients do you see each day?
A. 13 a day

Q. How often do you see each patient?
A. Fortnightly

Q. Do the majority of your patients need regular stretches or exercises
A. Yes

Q. Do you have any contact with your patients outside of appointments?
A. Not really no

Q. Would you like a way to keep up to date with your patients progress outside of appointments?
A. Yes definitely

Q. What would you like to be updated with?
A. If they're regularly remembering their exercise and stretches

Q. So patients often forget to stretch? Is there anything else they forget?
A. Yes 50% of the problem is they forget to stretch and patients also forget about appointments sometimes

User Group

Name: Alysa Granger
Age: 35
Injury: Damaged Tendon in left knee
Brief description: Alysa is a married mother of two, works for the council and regularly goes running. Alysa damaged her tendon while running one evening and has been having physiotherapy for 3 months.

Name: Daniel Madge
Age: 28
Injury: Torch chilis
Brief description: Daniel is a married father of a new born baby. Daniel runs his own building company and plays rugby for his local team. Daniel was playing one day where his foot got caught in the ground while getting tackled and torn his Achilles. He has been having physiotherapy for 5 weeks.

Name: Albert Davies
Age: 68
Injury: Damaged knee
Brief description: Albert is married with 3 children and 6 grandchildren. Albert is a retired engineer who after working for 45 years has been having issues with his knees. Albert has been having physiotherapy for 5 months and is currently on the waiting list for the podiatrist.

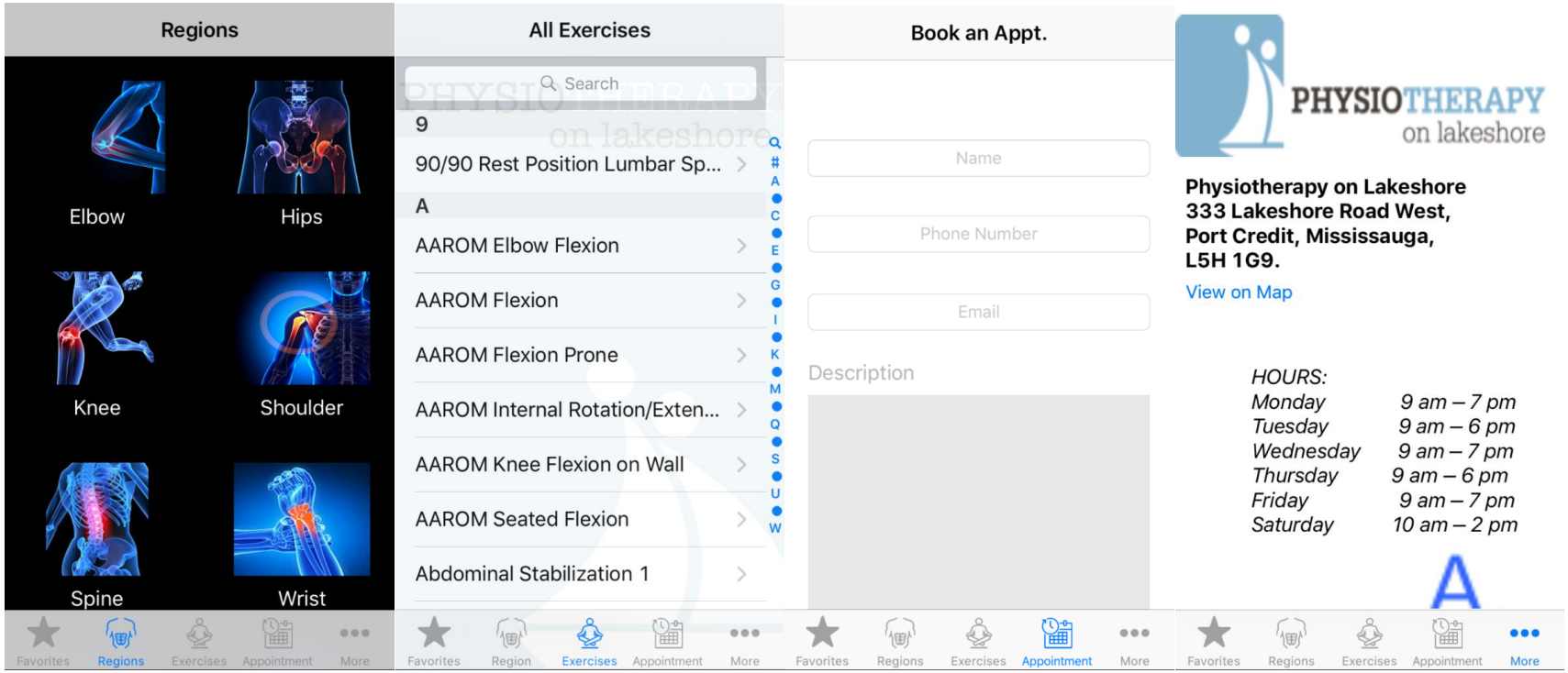
Name: Georgia Evans
Age: 46
Injury: Dislocated Shoulder
Brief Description: Georgia is a divorced mother of two. Georgia works as a shop manager at Asda for the last 12 years. She dislocated her shoulder by falling down the stairs at home, she then required surgery on the shoulder and has been having physiotherapy for a month.

Name: Ashleigh Howells
Age: 21
Injury: broken elbow
Brief description: Ashleigh is a student at university who studies sports management. Ashleigh is on the women's hockey team where she was playing and fell breaking her elbow and requiring surgery. Ashleigh has been having physiotherapy for 6 weeks.

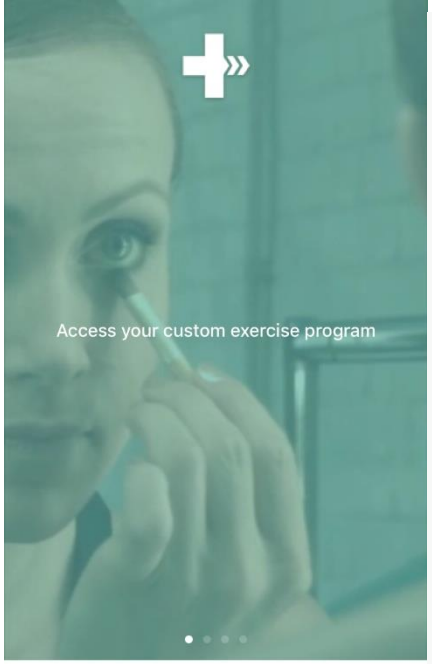
Name: Callum Morris
Age: 52
Injury: Slipped disk in back
Callum is married with one child. Callum is a carpenter when after years of working gathered a back pain where it was found he had a slipped disk in his back and has been in physiotherapy for 6 months.

Testing Apps

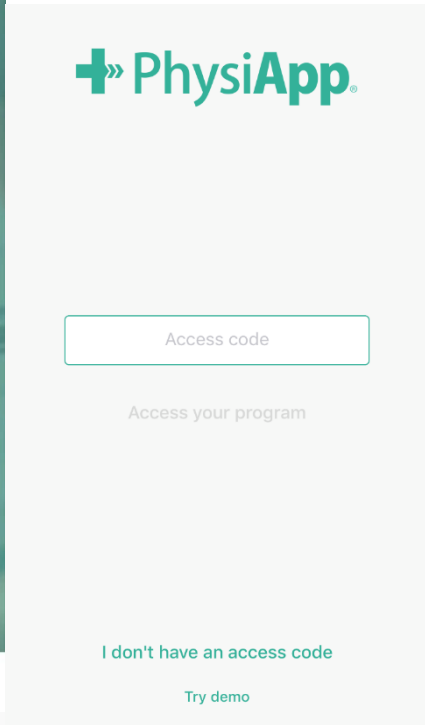
Having the opinions of a physiotherapist and determined that the functions that would be included in an app would be reminders, exercise tutorials, how to keep up with the patients progress and an easier way to be contacted. It was time to look at the applications that do some of the tasks, I couldn’t just evaluate them myself therefore I’d need to create a users group that currently have physiotherapy. I asked 6 people who are currently having physiotherapy to rate 5 apps that currently exist on the market evaluating the layouts, colours and the shapes and imagery which give the app a full effect.

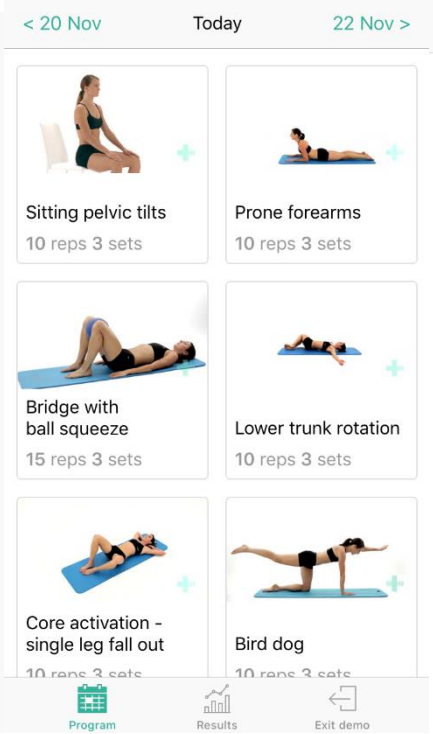

Regions
Elbow
Hips
Knee
Shoulder
Spine
Wrist
Favorites
Regions
Exercises
Appointment
More
All Exercises
Search
9
90/90 Rest Position Lumbar Sp...
A
AAROM Elbow Flexion
AAROM Flexion
AAROM Flexion Prone
AAROM Internal Rotation/Exten...
AAROM Knee Flexion on Wall
AAROM Seated Flexion
Abdominal Stabilization 1
Favorites
Region
Exercises
Appointment
More
Book an Appt.
Name
Phone Number
Email
Description
Favorites
Regions
Exercises
Appointment
More
PHYSIOTHERAPY
on lakeshore
Physiotherapy on Lakeshore
333 Lakeshore Road West,
Port Credit, Mississauga,
L5H 1G9.
View on Map
HOURS:
Monday 9 am – 7 pm
Tuesday 9 am – 6 pm
Wednesday 9 am – 7 pm
Thursday 9 am – 6 pm
Friday 9 am – 7 pm
Saturday 10 am – 2 pm
A
Favorites
Regions
Exercises
Appointment
More

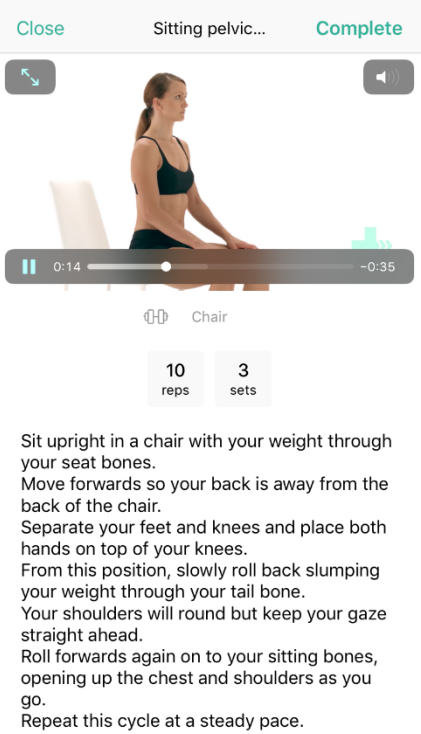
Physiotherap...

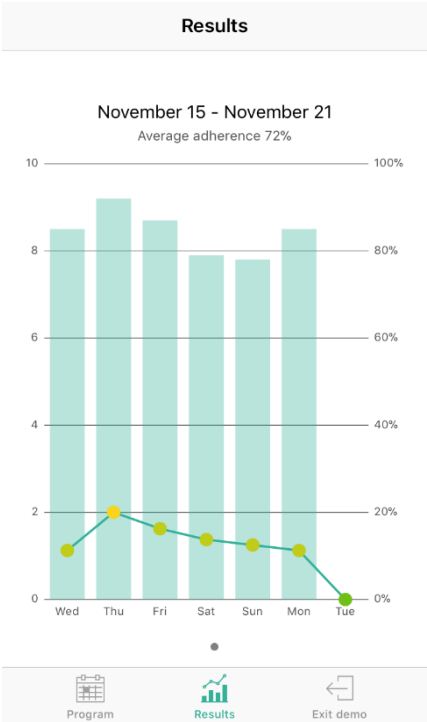


Access your program



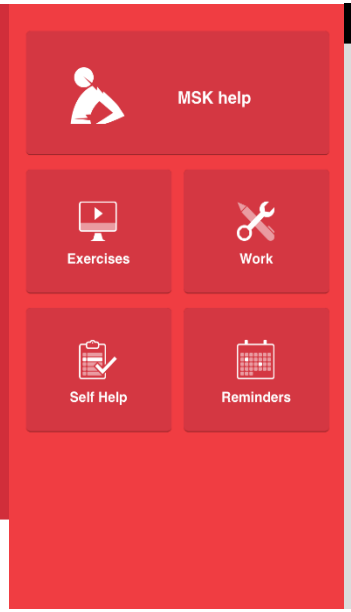


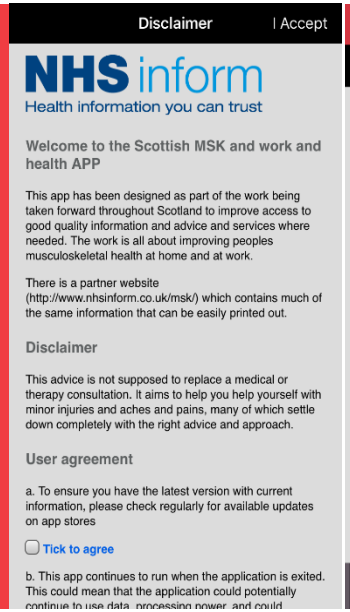


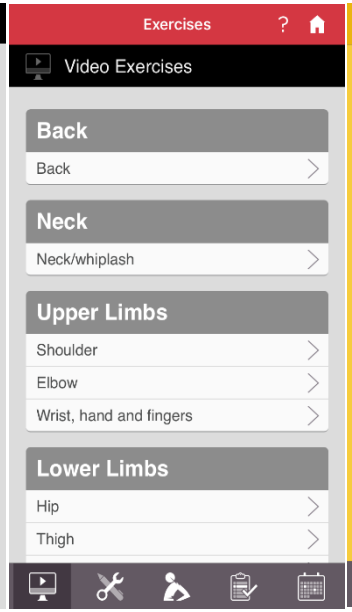


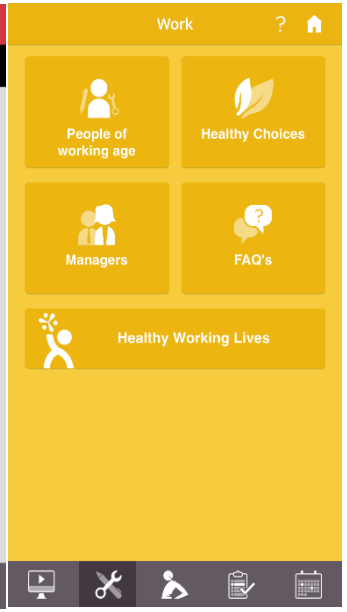
PhysiApp

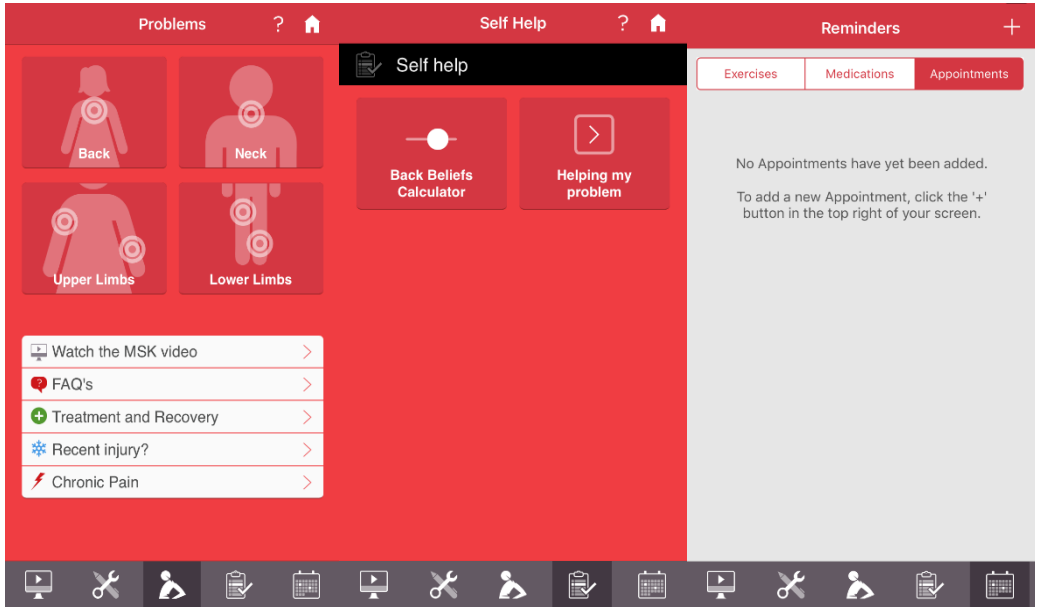
MUSCLE, BACK OR JOINT PROBLEMS?
NHS MSK HELP
NHS inform
Health information you can trust
NHS 24


MSK help
Exercises
Work
Self Help
Reminders


Disclaimer
I Accept
NHS inform
Health information you can trust
Welcome to the Scottish MSK and work and health APP
This app has been designed as part of the work being taken forward throughout Scotland to improve access to good quality information and advice and services where needed. The work is all about improving peoples musculoskeletal health at home and at work.
There is a partner website (http://www.nhsinform.co.uk/msk/) which contains much of the same information that can be easily printed out.
Disclaimer
This advice is not supposed to replace a medical or therapy consultation. It aims to help you help yourself with minor injuries and aches and pains, many of which settle down completely with the right advice and approach.
User agreement
a. To ensure you have the latest version with current information, please check regularly for available updates on app stores
Tick to agree
b. This app continues to run when the application is exited. This could mean that the application could potentially

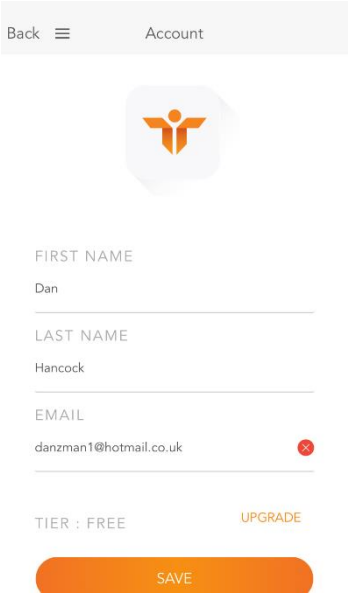

Exercises
Video Exercises
Back
Back
Neck
Neck/whiplash
Upper Limbs
Shoulder
Elbow
Wrist, hand and fingers
Lower Limbs
Hip
Thigh

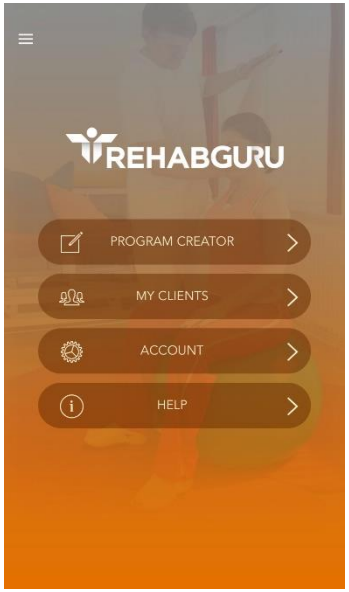

Work
People of working age
Healthy Choices
Managers
FAQ's
Healthy Working Lives

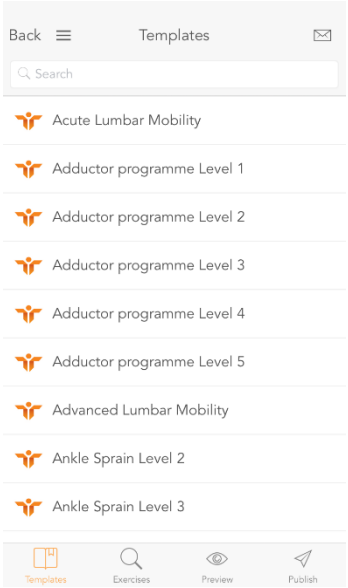

Problems
Back
Neck
Upper Limbs
Lower Limbs
Watch the MSK video
FAQ's
Treatment and Recovery
Recent injury?
Chronic Pain
Self Help
Self help
Back Beliefs Calculator
Helping my problem
Reminders
Exercises
Medications
Appointments
No Appointments have yet been added.
To add a new Appointment, click the '+' button in the top right of your screen.

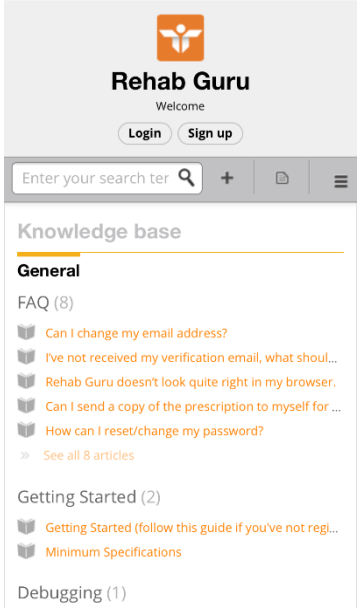
NHS 24
MSK help

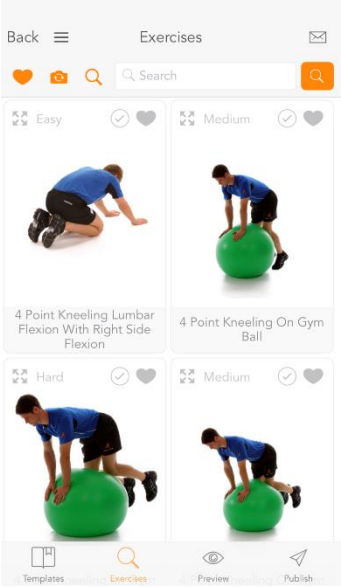
10 reps
5 sets
Twice a day
Fast Program Creation
You can quickly create exercise prescription programs using exercises from the extensive library, or load a pre-made program from the Rehab Guru Template Library.
Sign Up
Log In

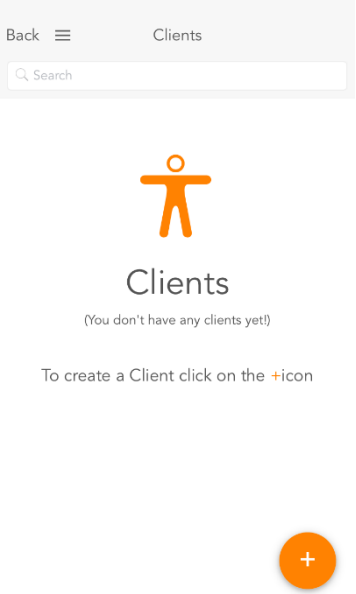

Back
Account
FIRST NAME
Dan
LAST NAME
Hancock
EMAIL
danzman1@hotmail.co.uk
TIER : FREE
UPGRADE
SAVE


REHABGURU
PROGRAM CREATOR
MY CLIENTS
ACCOUNT
HELP


Back
Templates
Search
Acute Lumbar Mobility
Adductor programme Level 1
Adductor programme Level 2
Adductor programme Level 3
Adductor programme Level 4
Adductor programme Level 5
Advanced Lumbar Mobility
Ankle Sprain Level 2
Ankle Sprain Level 3
Templates
Exercises
Preview
Publish


Rehab Guru
Welcome
Login
Sign up
Enter your search ter
Knowledge base
General
FAQ (8)
Can I change my email address?
I've not received my verification email, what shoul...
Rehab Guru doesn't look quite right in my browser.
Can I send a copy of the prescription to myself for ...
How can I reset/change my password?
See all 8 articles
Getting Started (2)
Getting Started (follow this guide if you've not regi...
Minimum Specifications
Debugging (1)


Back
Exercises
Search
Easy
Medium
4 Point Kneeling Lumbar Flexion With Right Side Flexion
4 Point Kneeling On Gym Ball
Hard
Medium
Templates
Exercises
Preview
Publish


Back
Clients
Search
Clients
(You don't have any clients yet!)
To create a Client click on the +icon

REHABGURU
Rehab Guru

care UK NHS

Pocket Physio

Exercises

Reminders

Information

Contact

Learn more about Pocket Physio

Back Exercises

- Knee exercises
- Hip exercises
- Foot exercises
- Hand exercises

Back Knee exercises

- Self assessment
- Pre-surgery
- Post surgery (to four weeks)
- Exercises (from four weeks)
- Advanced exercises (from six weeks)

Exercises Reminders Information Contact

Back Reminders

Your Reminder

Add new reminder

Exercises Reminders Information Contact

Back Information

- Walking with a frame
- Walking with crutches
- Walking upstairs
- Walking downstairs
- Walking programme

- Breathing exercises
- Pain management
- Improving circulation
- Dressing
- Bathing & showering
- Car transfers

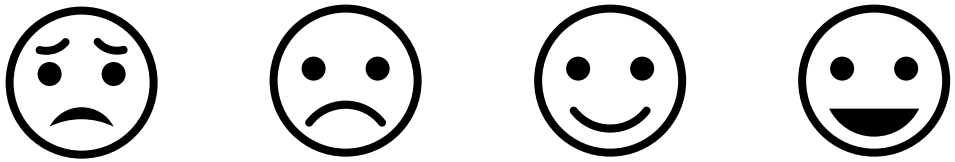
Exercises Reminders Information Contact

Exercises Reminders Information Contact

Pocket Physio

PocketPhysio

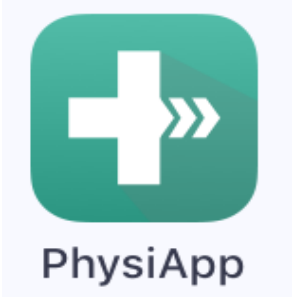
evaluation



1 2 3 4

Each user rated the specific topics needed with a very good, good, bad or very bad. I did not add a middle option due to the fact that people will just select that as an easy option. Each feeling has a number rating where 1 is the lowest and 4 is the highest.

App 1



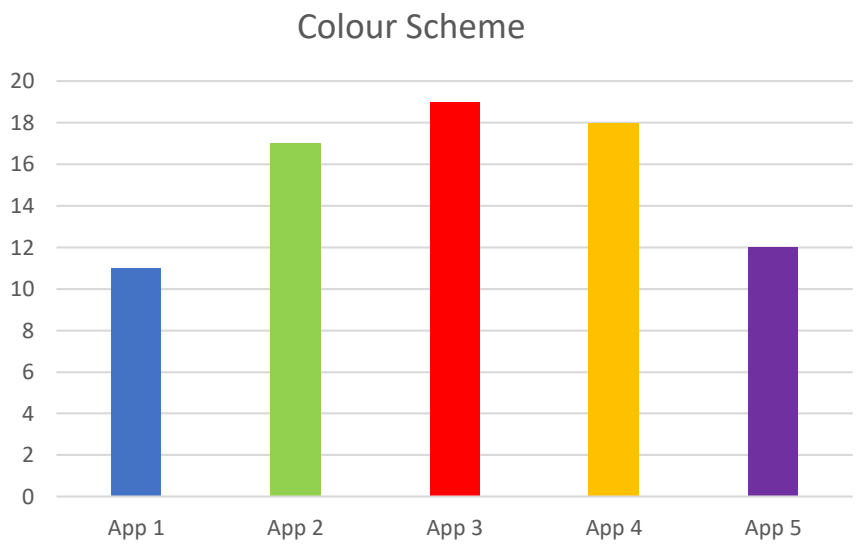
App 2

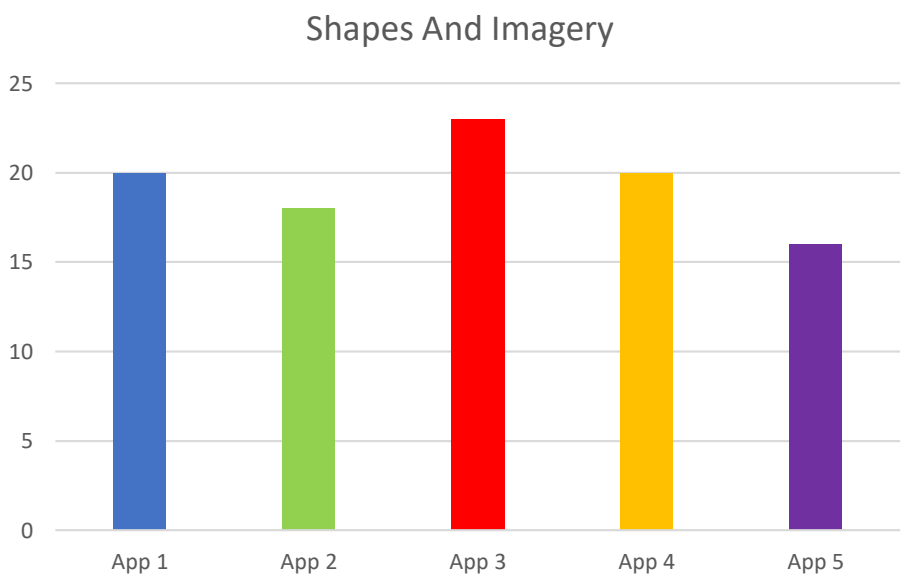
App 3

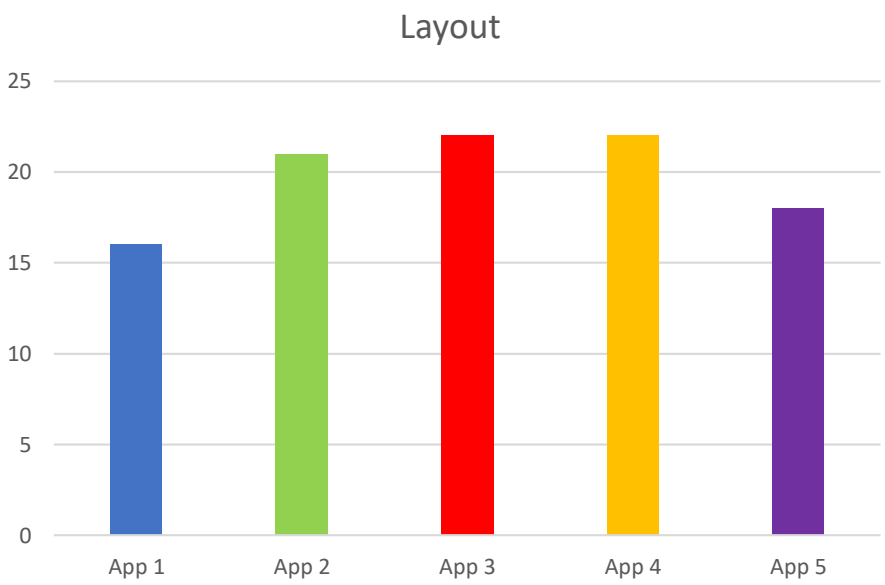
App 4

App 5

User Group Results







Colour Psychology

Designing a physiotherapy app there are a lot of different user experiences to analyse and research. One experience to look into is the visual experience. Colour psychology creates a great effect to the users experience. Being in physiotherapy is a long journey sometimes psychology tough. Therefore a visual experience of colour psychology is vital as the correct colour can motivate and lift the patient to carry on down the road of recovery. In a list below is what psychological effects different colours have on people. This information was published by a website named art therapy where they also gave a brief description of colour psychology below

What is Colour Psychology?

The psychology of colour is based on the mental and emotional effects colours have on sighted people in all facets of life. There are some very subjective pieces to colour psychology as well as some more accepted and proven elements. Keep in mind, that there will also be variations in interpretation, meaning, and perception between different cultures.

Color Psychology: The Color Brown

- reliability
- stability
- friendship
- sadness
- warmth
- comfort
- security
- natural
- organic
- mourning (in some cultures/societies)

Color Psychology: The Color Grey

- neutral
- timeless
- practical

Color Psychology: The Color Pink

- romance
- love
- gentle
- calming
- agitation

Color Psychology: The Color White

- purity
- innocence
- cleanliness
- sense of space
- neutrality
- mourning (in some cultures/societies)

Color Psychology: The Color Purple

- royalty
- wealth
- sophistication
- wisdom
- exotic
- spiritual
- prosperity
- respect
- mystery

Color Psychology: The Color Green

- natural
- cool
- growth
- money
- health
- envy
- tranquility
- harmony
- calmness
- fertility

Color Psychology: The Color Black

- authority
- power
- strength
- evil
- intelligence
- thinning / slimming
- death or mourning

Color Psychology: The Color Orange

- happy
- energetic
- excitement
- enthusiasm
- warmth
- wealth prosperity
- sophistication
- change
- stimulation

Color Psychology: The Color Blue

- calmness
- serenity
- cold
- uncaring
- wisdom
- loyalty
- truth
- focused
- un-appetizing

Color Psychology: The Color Yellow

- happiness
- laughter
- cheery
- warmth
- optimism
- hunger
- intensity
- frustration
- anger
- attention-getting

Color Psychology: The Color Red

- love
- romance
- gentle
- warmth
- comfort
- energy
- excitement
- intensity
- life
- blood

Color Psychology: The Color Black

- authority
- power
- strength
- evil
- intelligence
- thinning / slimming
- death or mourning

Understanding Texts

Another visual experience for the user would be the text in the app. Due to this being an app that can benefit all ages the text must be clear and easily understandable to even a person who is partially cited. I selected the most popular and clearest texts available. To test these texts I had to understand a partially cited users experience. Therefore I typed out a different sentence in each text and Jac one of my colleagues placed on a blindfold that was thin enough to produce a partially cited experience and asked him to read out the sentences to evaluate which text would be best. This would be using an empathy research technique from the cards.

Times New Roman

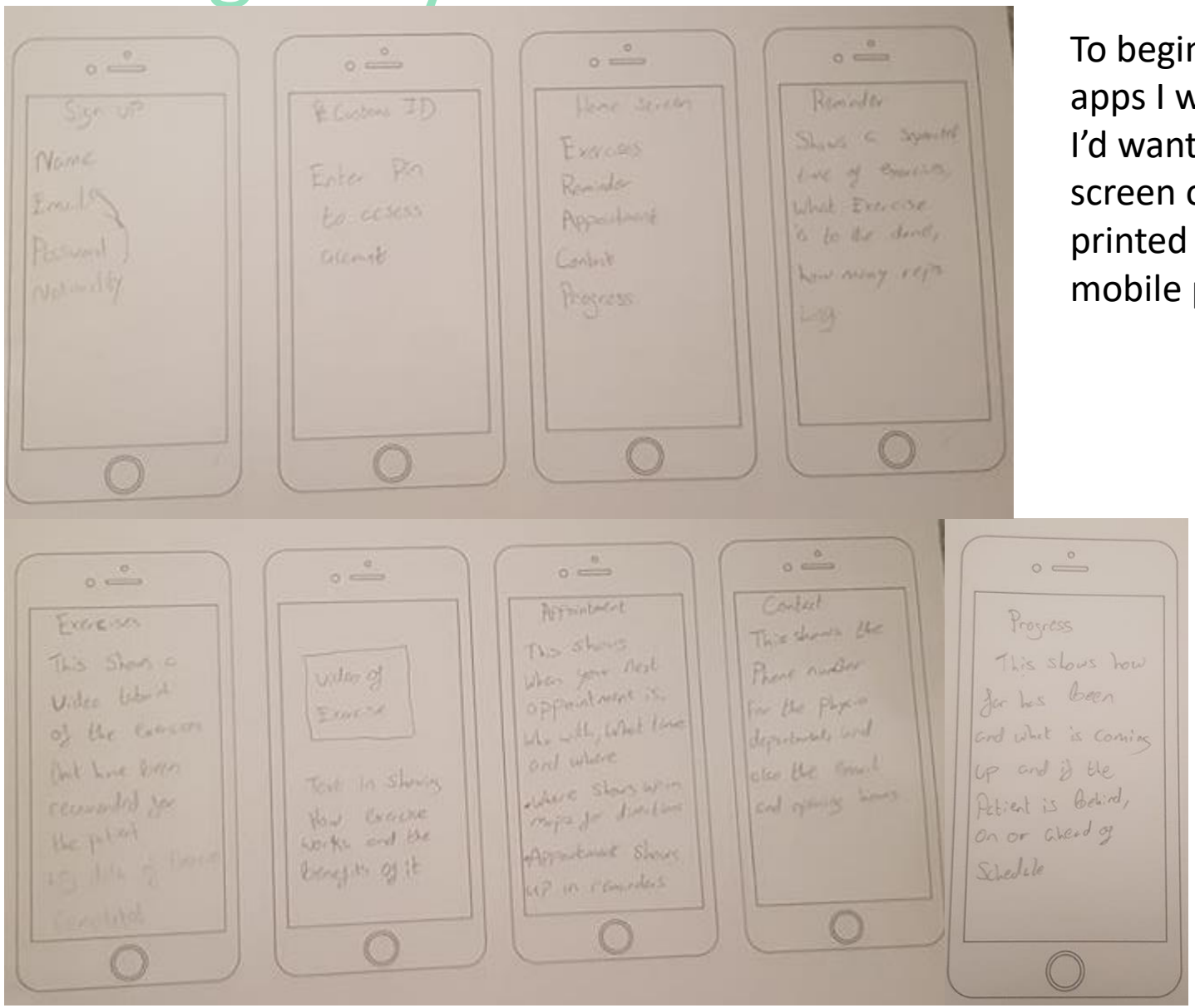
Helvetica

Garamond

Calibri

Arial

Design Layout

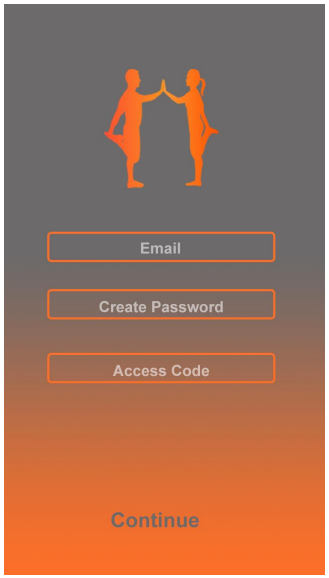


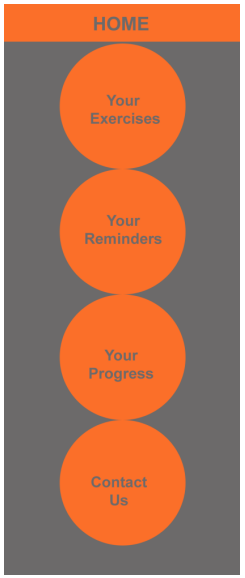
To begin designing the apps I wrote down what I'd want to have on each screen of the app on printed out templates of mobile phones.

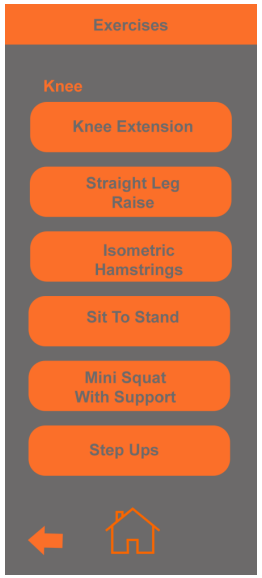
App Prototypes

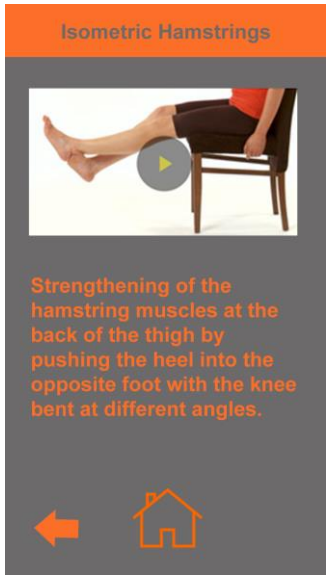
The task of this project was to create three different prototypes of the products. The layout of the app and what was wanted was pre determined to meet the clients needs. I then firstly showed the users the layout of the app and if any changes were needed. But the difference between the three prototypes was the visual effects of the apps. In each app there are 3 different colours, shapes, home tabs, manoeuvring through the app and page title. This would be the extreme user interview technique from the cards.

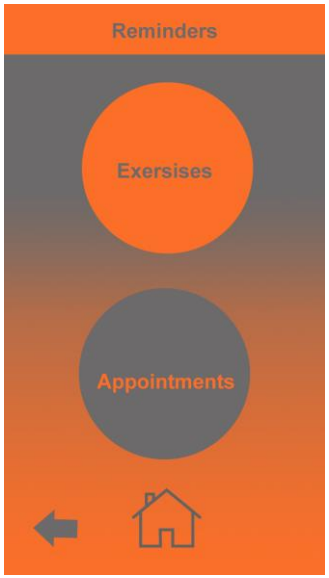
App Design Layout

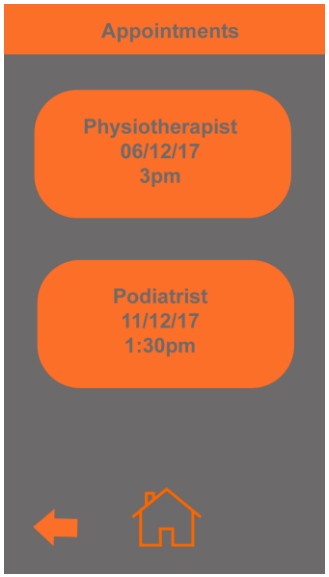


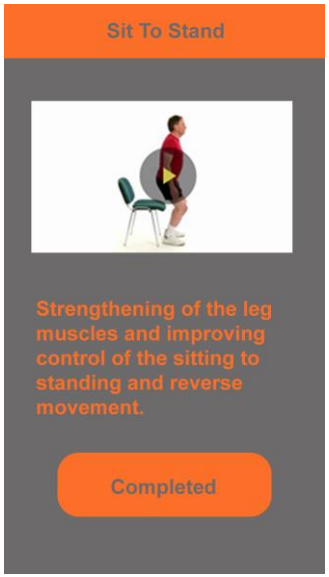


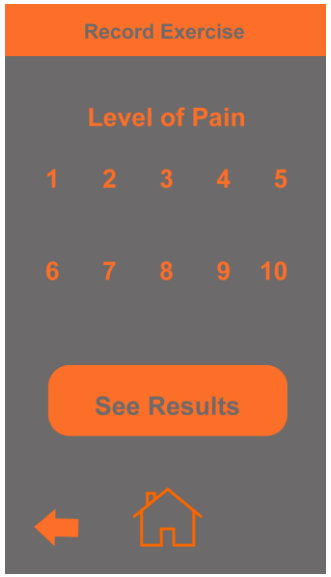


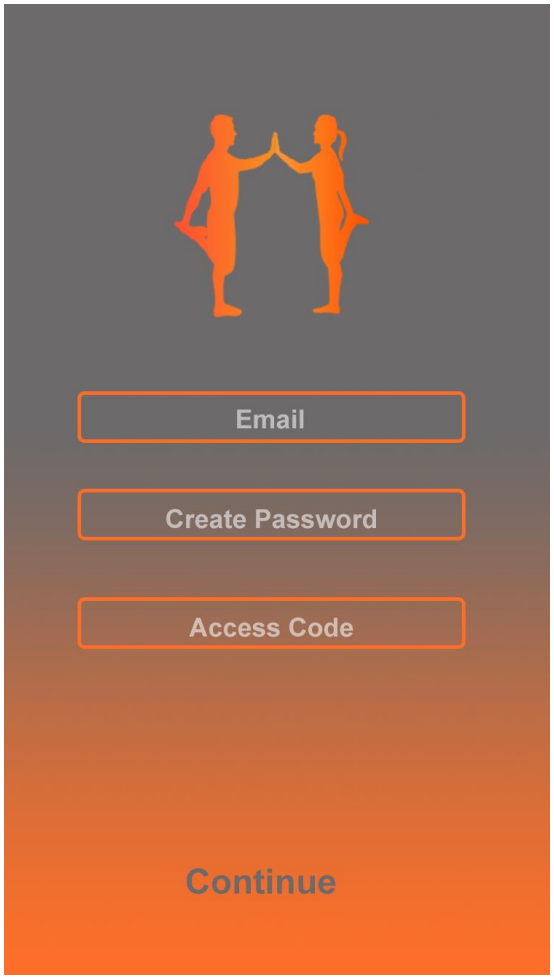






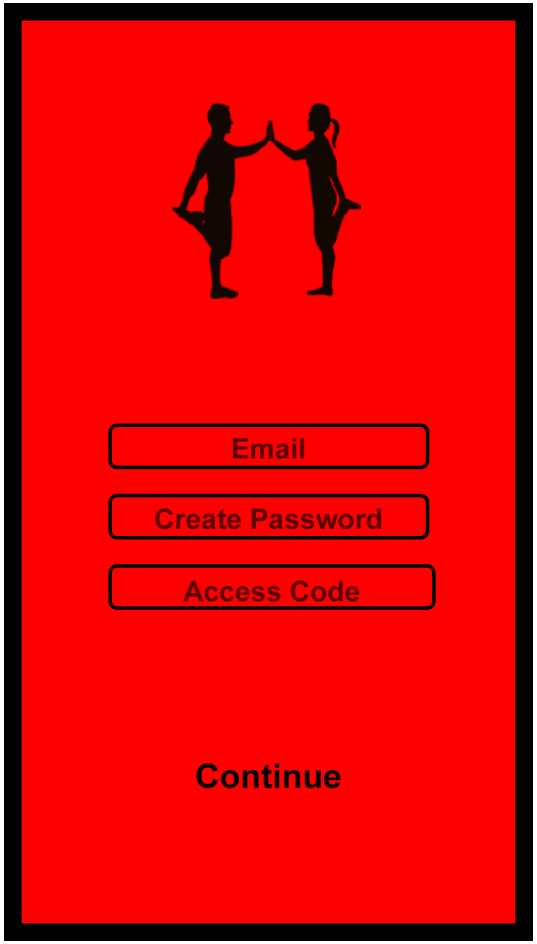





Email
Create Password
Access Code
Continue

HOME
Your Exercises
Your Reminders
Your Progress
Contact Us

Exercises
Knee
Knee Extension
Straight Leg Raise
Isometric Hamstrings
Sit To Stand
Mini Squat With Support
Step Ups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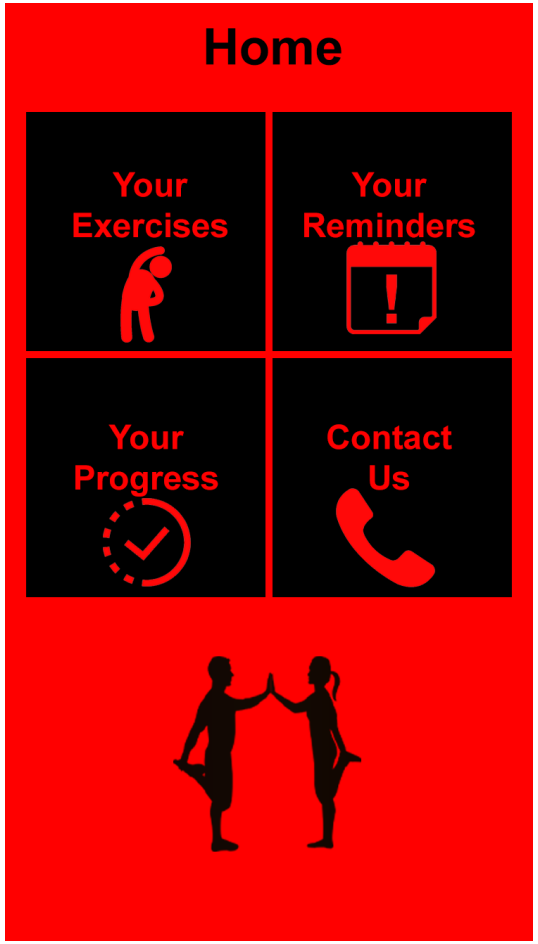
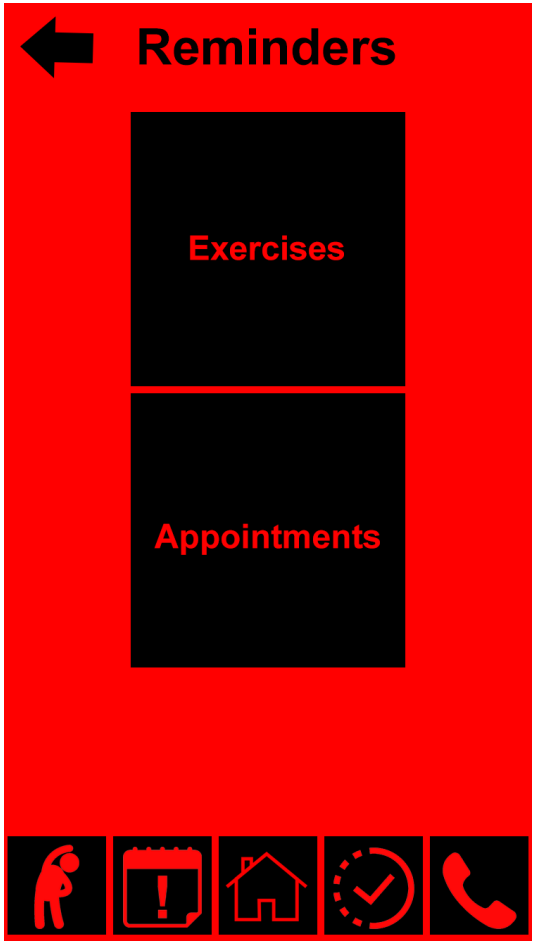
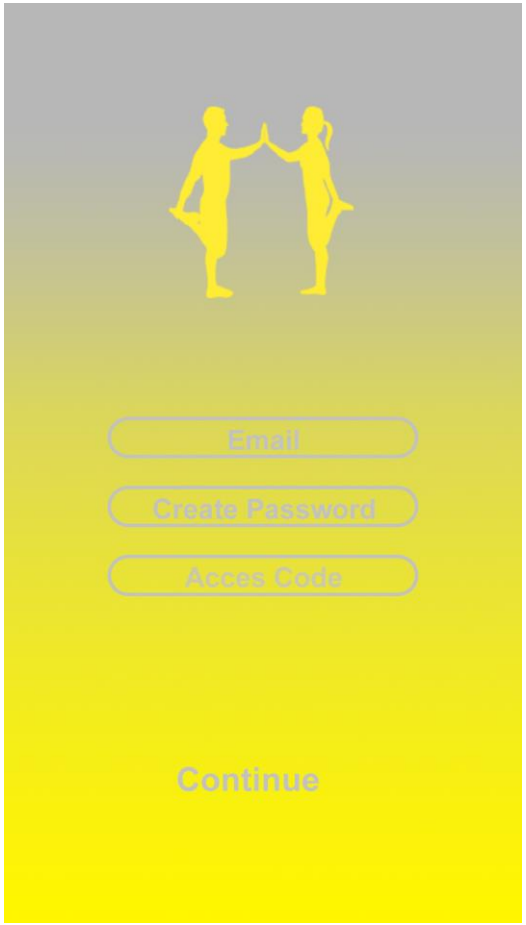

Home
Your Exercises
Your Reminders
Your Progress
Contact Us


Reminders
Exercises
Appointments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Create Password
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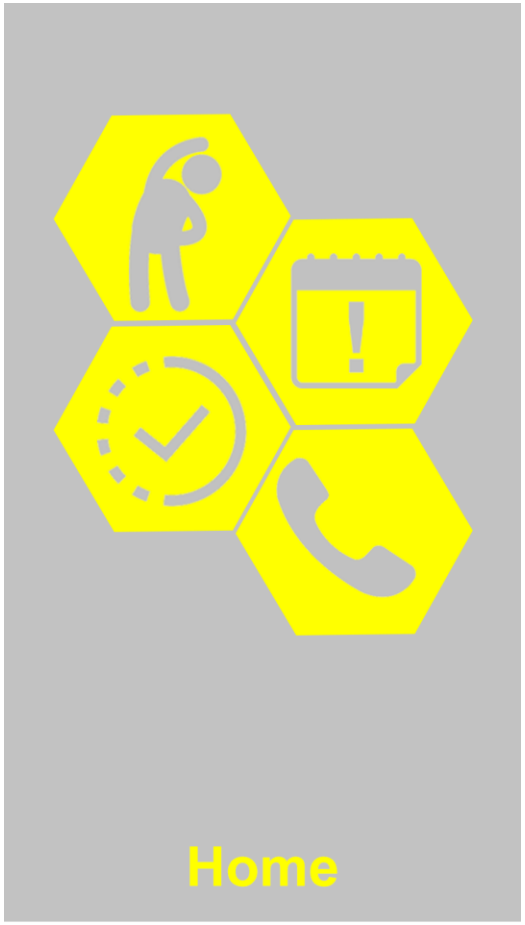
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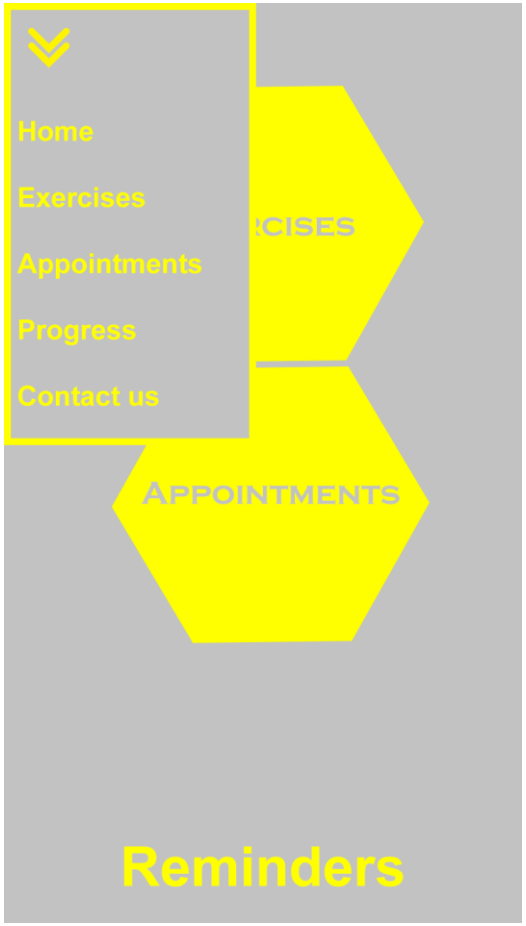
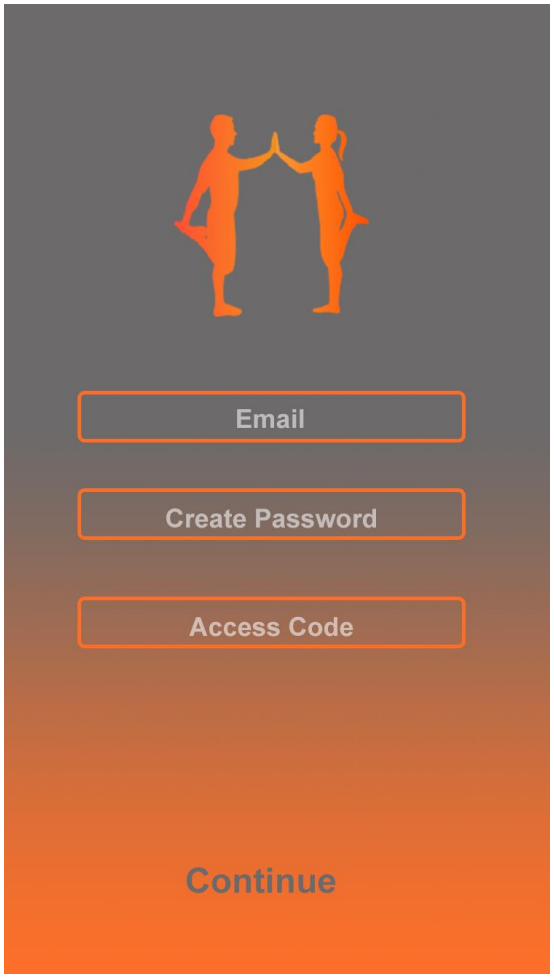
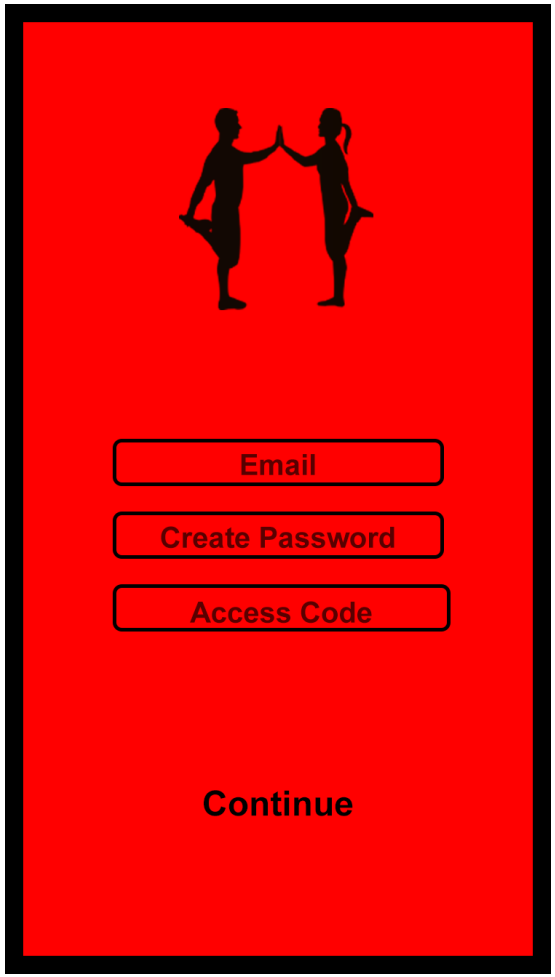
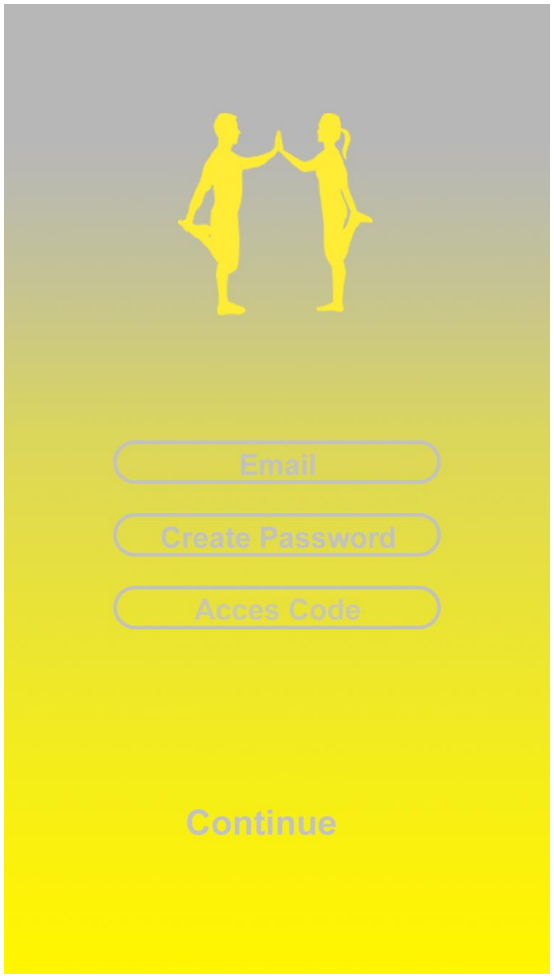

Home
Exercises
Appointments
Progress
Contact us
:CISES
APPOINTMENTS
Reminders

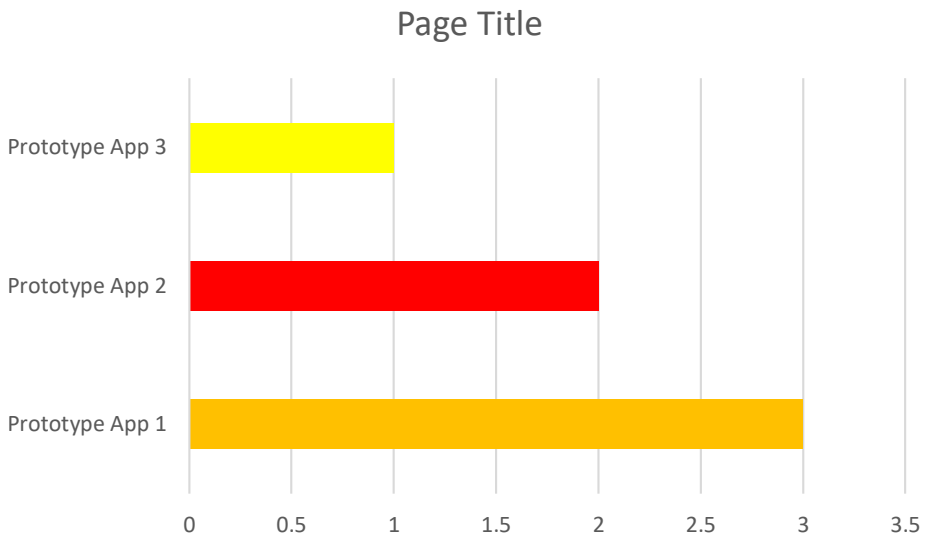
App Prototypes Responses

To analyse which aspects of the three prototype apps would be the best I again went and asked the same 6 users that tested the existing apps previously. The 6 users would select one of the apps in each area.





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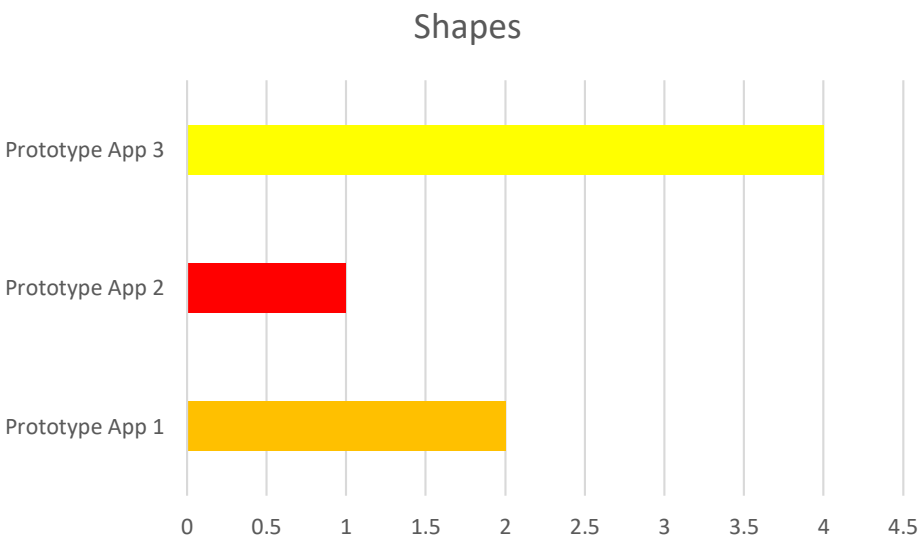
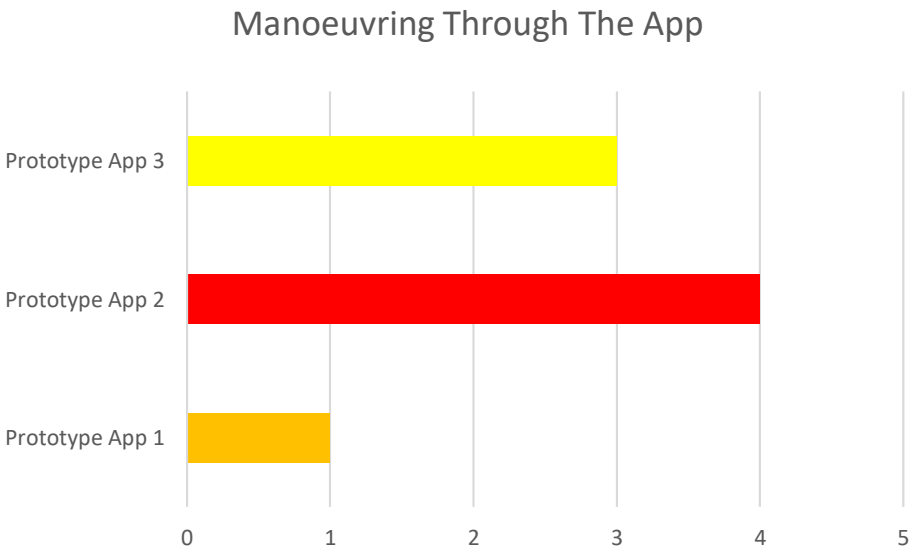
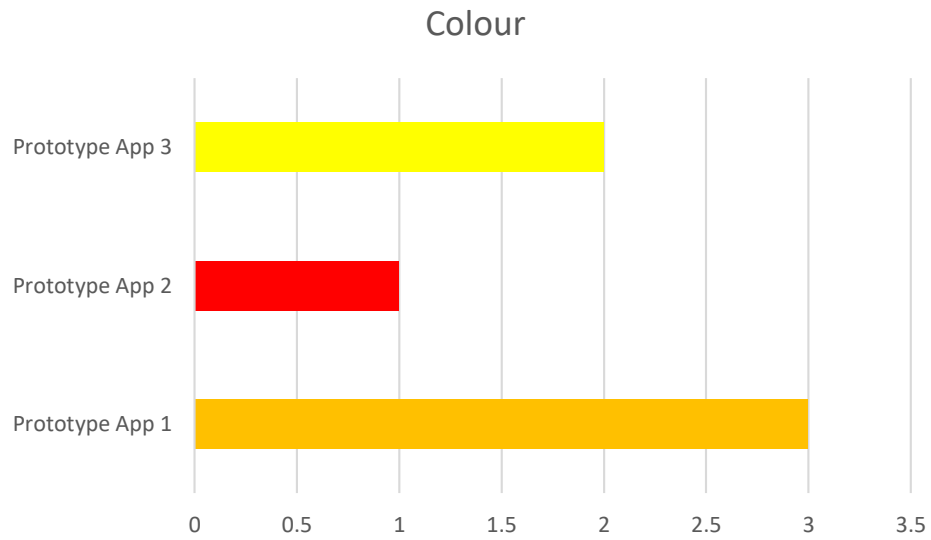
Prototype App 2
Prototype App 1
0
0.5
1
1.5
2
2.5
3
3.5

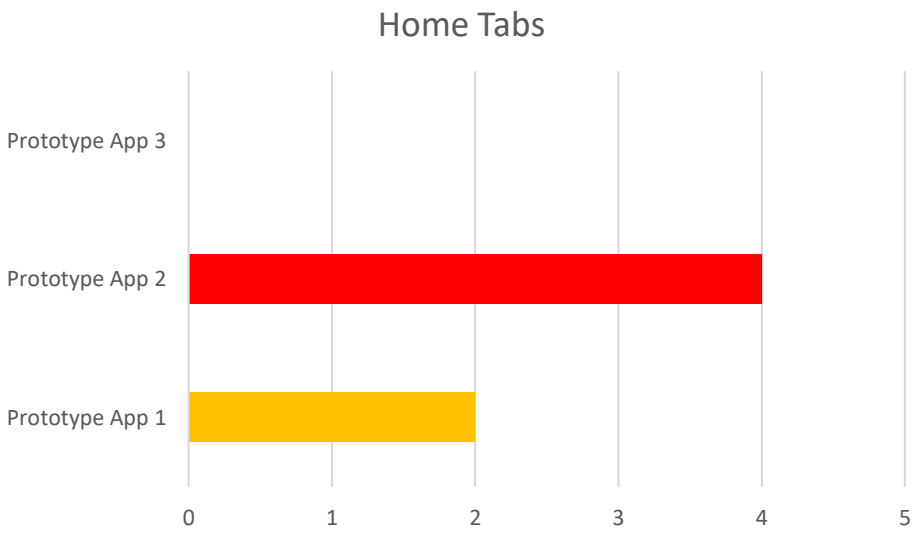

Shapes
Prototype App 3
Prototype App 2
Prototype App 1
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5


Manoeuvring Through The App
Prototype App 3
Prototype App 2
Prototype App 1
0
1
2
3
4
5



After evaluating the results I can now determine the best options and styles for the final app.

Page title - App 1
Manoeuvring through the app - App 2
Shapes - App 3
Colour - App 1
Home Tabs – App 2



In the case of the complete app I also asked the users to analyse the layout of the complete app and the aspects of it. This was done by creating the app to work interactively using the website invision. Each user thoroughly liked the aspects of reminding you to exercise, Watching a video of the exercise really helps , The appointment reminders and to see the progress of the injury.

Conclusion

In conclusion the research that I have done through this project has helped to gather the information for the three prototypes. I truly believe that the idea and design itself can help bridge the gap between physiotherapist and patient creating a better and quicker recovery experience. This app can help to affect lives for the better and that is the most rewarding thing of them all.