FIT3175 - Usability Assignment Stage D

Group 12E

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Contents

Introduction

The knowledge gained from the data collection and analysis conducted in the previous stages of the assignment has helped us define user stories and establish initial design concepts. This report showcases how we refine our existing ideas in accordance to the Theory of Usability to create a high fidelity prototype of our proposed solution.

Reflections on Existing Sketches

The sketches are based on the same idea but were produced independently of each other. The purpose of this analysis is to determine defining design aspects in each design and identify if there are any refinements to be made.

Sketch By: Kenny Ye
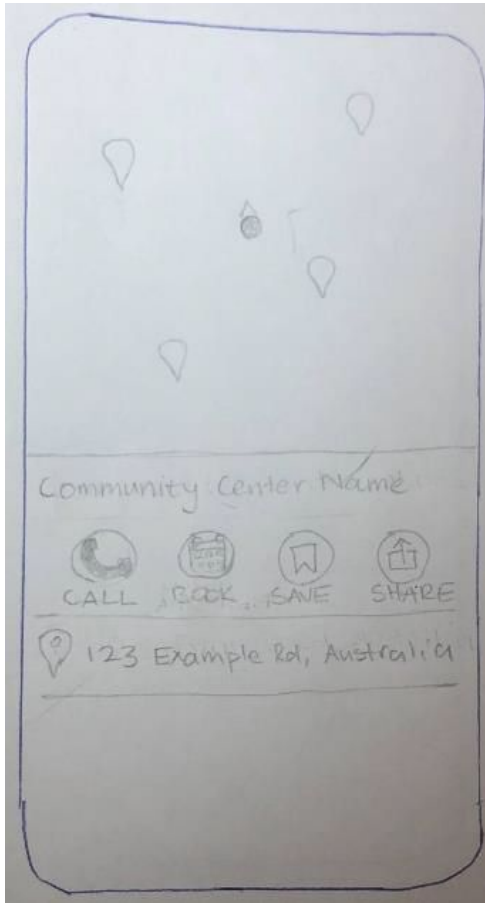
Positive Aspect of Design:
- Clear presentation of map and information
- Use of resemblance and exemplar icons to make the functionality of buttons and links clear
- There is not too many options for a location which allows the user to focus on the presented functionality of the screen

Possible Improvement:
- Including a back button for easy navigation back to homepage
- There could be a menu to inform users which state they are currently interacting with
- Biggers buttons so that the icons will stand out more
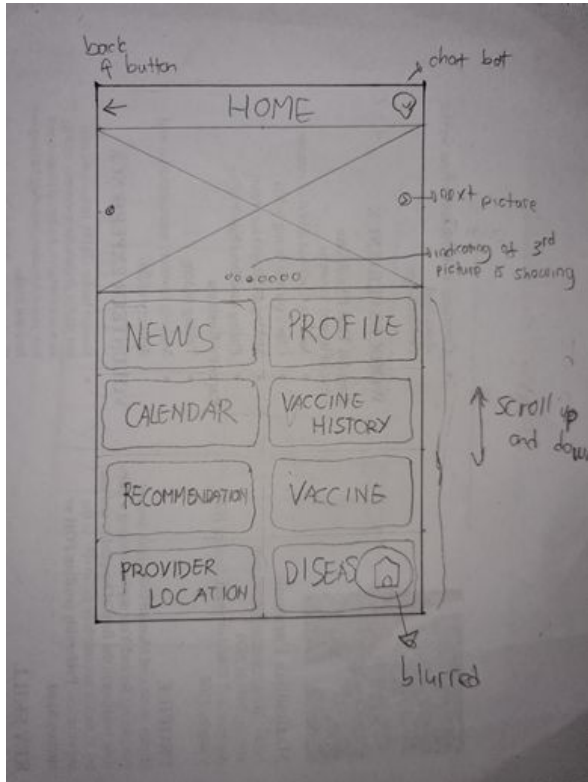
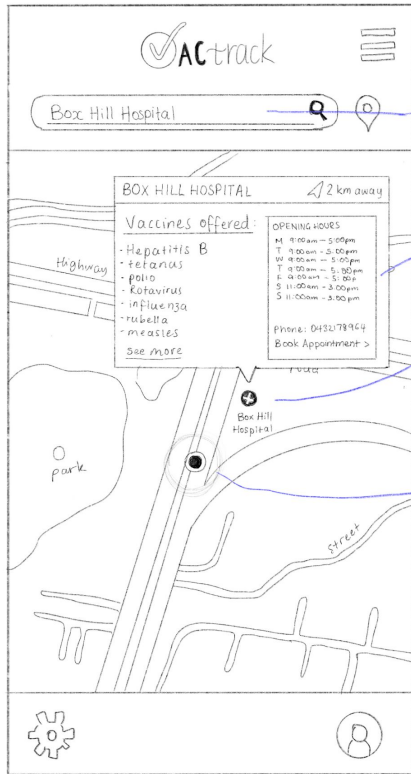Sketch By: Maximillian Purnomo

Positive Aspect of Design:
- Design is consistent
- Flat card design similar to other apps that promotes usability and learnability
- Buttons are big and close to each other (invokes Fitts' law)
- Sliding screen at the top makes the screen interactive

Possible Improvement:
- Navigation may be challenging if the home page contains the link to all other pages

Handwritten annotations on sketch:
- map pops up when location is searched
- tap on centre to expand for more information
- verified centres are displayed
- user location is displayed

Sketch labels:
- ACtrack
- Box Hill Hospital
- BOX HILL HOSPITAL — 2 km away
- Vaccines offered:
  - Hepatitis B
  - tetanus
  - polio
  - Rotavirus
  - influenza
  - rubella
  - measles
  - See more
- OPENING HOURS
  - M 9:00am – 5:00pm
  - T 9:00am – 5:00pm
  - W 9:00am – 5:00pm
  - T 9:00am – 5:00pm
  - F 9:00am – 5:00pm
  - S 11:00am – 3:00pm
  - S 11:00am – 3:00pm
- Phone: 0432178964
- Book Appointment >
- Box Hill Hospital
- Park
- Highway
- Street

Sketch By: Elysia Teo

Positive Aspect of Design:
- Map design offers informative feedback regarding the location
- Not many overwhelming buttons and elements on the screen allows the user to focus their attention to the main features of the screen

Possible Improvement:
- Information displayed in a small dialog box (upon clicking a location) might be too small
- The location button could be placed in the area that is easier for user to click
- There might be a filter button that will open as a pop up to filter the places that fit user's wish
- Offer voice recognition in the search bar

Sketch By: Vionnie Tan
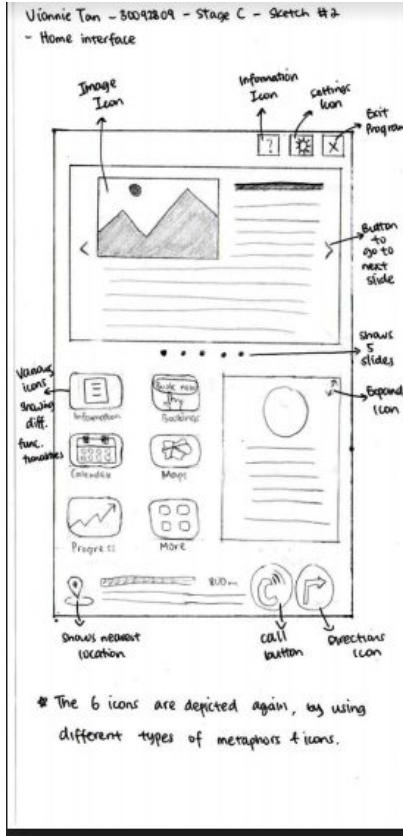
Positive Aspect of Design:
- Use of resemblance and exemplar icons to make the functionality of buttons and links clear
- Offers informative feedback of progress with slide progression dots

Possible Improvement:
- The design some of the buttons and features might be too small for phone size making it hard to see or read
- Inconsistent design with the circle icon on the right, instead of all rectangular icons
- Too many buttons on the screen may overwhelm the user

Sketch By: Guangyu Tian
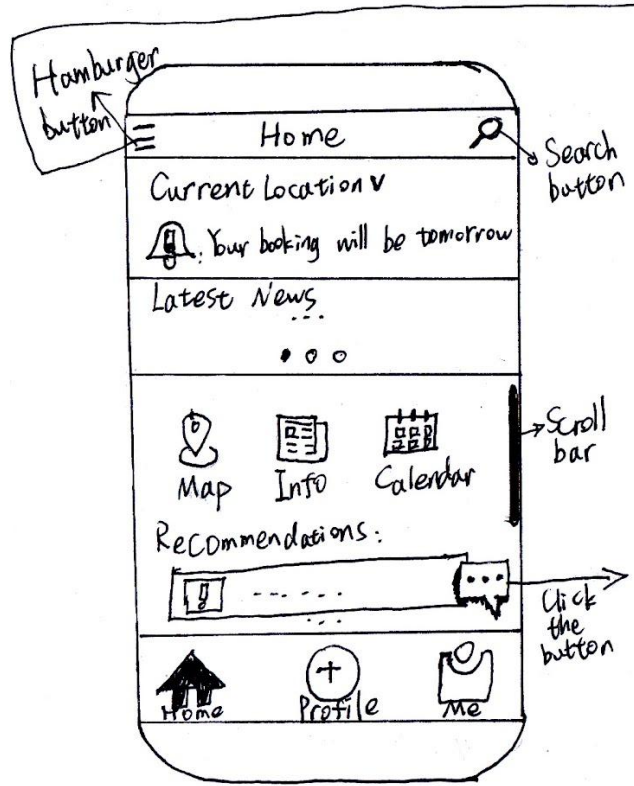
Positive Aspect of Design:
- Has everything that you would expect from a home screen, icon design is also consistent which promotes a good mental model of the system
- Layout of the home screen is segmented into sections which helps segregate information using Gestalts Law

Possible Improvement:
- More icons at the bottom of the screen
- 2 forms of navigation in the hamburger button and the navigation bar which might confuse the user (consistency for two menus)

Shared User Stories

The user stories define the intended functionality of the prototype design. Several user stories were selected that will be used to specify the requirements for the prototype designs.

1. As a user, I want the app to display healthcare centres with available vaccines on a map based on my location so that I can choose a healthcare centre based on the distance.

Acceptance Criteria:
- There is a map according to user's location with highlighted healthcare centres
- Ability to zoom in and out the map
- Each healthcare centre can be clicked and displays location details

2. As a new user, I want to be able to create a new account so that my data can be saved

Acceptance Criteria:
- Display a login screen upon opening the app, and offer the user to create a new account if they don't have one
- Asks the new user for basic details for signing up to the app

3. As a user I want to be able to log and view my entire vaccination history.

Acceptance Criteria:
- List view of all vaccinations and dates taken
- Able to see detailed view of vaccination upon clicking the list item

4. As a user, I want to track real-time vaccine information about safety and target people so that I can save my time for looking for vaccine in healthcare center and be efficient.

Acceptance Criteria:
- A search bar at the top of the screen to search specific news or news about specific vaccines
- A detailed view of the vaccine is displayed upon tapping an item from the list view

5. As a user, I want to have a schedule/calendar for pending vaccines so that I can book vaccinations for myself or children based on my working time.

Acceptance Criteria:
- A list of all the upcoming and overdue vaccines below the calendar
- Each date can be tapped to display details

Shared Personas

Personas are fundamental in the utilisation of user stories for development. They allow the developers and designers to gain a deeper understanding of the end user. The following personas are a collaboration of information gathered from the team's questionnaires and refinements from previously created personas.
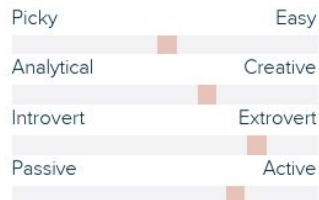
Nina Frost

Age: 22
Work: Student
Family: Single
Location: Melbourne, Australia

Personality

Picky		Easy

Analytical		Creative

Introvert		Extrovert

Passive		Active

Patient	Efficient	Passionate

Goals

- Track vaccine information.
- Book vaccine automatically
- Schedule for pending vaccines

Frustrations

- Long waiting time in the healthcare centre
- Inefficient to book vaccines by contacting the healthcare centre
- Waste time on searching for vaccines for her vaccine condition

Bio

Nina is a full-time university student who would like to use a calendar or check on the phone for any issue because of the busy university life. She feels upset while things work in an ineffective way. She is happy to read the news about vaccines. Despite her last name, she is not a cold person.

Motivation

Nina would like to find an application that provides information about vaccinations based on her preference, current location and personal vaccine condition. Besides she wants the app to notify her once vaccines are available and automatically book for her. She found that it is inefficient to book future vaccine by contacting the healthcare centre.

Preferred Vaccine

- Safety
- Target people

Preferred Vaccine Info

- HPV
- Influenza

Jessica Brown

Personality

Introvert — Extrovert

Analytical — Creative

Loyal — Fickle

Passive — Active

Bio

Jessica is a manager of projects as well as a mother of two children. She preferred working in the office so that she could talk to people to get more information. Despite she is always free at home, she has been looking for an online method for not missing the vaccine schedule. Besides, she always learns about the reliability of any new vaccines for children.

Motivations

Jessica would like to find an app that can help book vaccines for two children and herself because she is always busy at work and therefore notifying her by sending email would be an option. She also wants to track the reliability of preferred vaccines since the safety issue is important for children.

"I'm looking for an app that will simplify the planning of my vaccinations."

AGE: 45
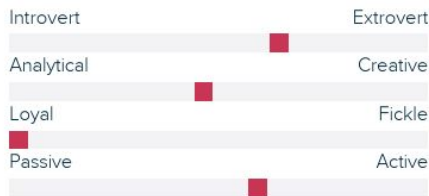**WORK:** Manager
FAMILY: Mother of two children
LOCATION: Melbourne, Australia

Organized   Practical

Hardworking

Goals

- To spend less time searching for vaccines
- To get notifications as soon as possible
- To receive a schedule for future vaccines

Frustrations

- Too much time spent searching - she's busy!
- Always missing the new-arriving vaccinations
- Cannot ensure reliable and safe vaccines

Preferred Vaccine

- HPV
- Chickenpox

Preferred Vaccine Info

- Safety
- Schedule

Jack Rowland

Age: 28
Work: Junoir Mechanical Engineer
Family: Single
Location: Melbourne, Australia

Bio

Jack Works at a large engineering firm. He lives alone in a rented apartment near work and eats healthy and counts calories. Besides, Jack enjoys going on runs and participating in marathons. Due to his job, he has a high-performance laptop for work

Preferred Vaccine

- Chickenpox
- Coronavirus

Preferred Vaccine Info

- Personal vaccine history

- Time for taking booster shots

- Available appointments for vaccinations

Motivations

Jack would like to have an app that can record personal vaccine history and can book appointments with detail steps so that he can achieve it on his laptop. Besides, Jack wants to receive notifications about when to take booster shots and he wants to learn vaccine news online since he spends most of his time online.

Goals

- To book vaccine appointments by himself
- To perform actions about vaccines online
- To transition toward email / automated customer service

Frustrations

- Does not know any vaccines he has taken
- Is not aware of when to take booster shots
- Has never booked an appointment for a vaccine himself

Personality

Introvert		Extrovert

Analytical		Creative

Loyal		Fickle

Passive		Active
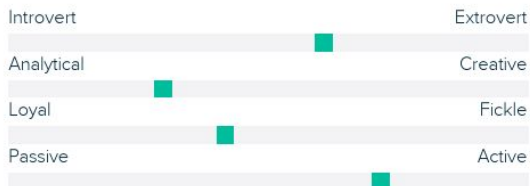
Agreeable

Accessible

Dependable

"I want to optimize how the vaccine appointments steps more clear for users. "

High Fidelity Prototype (FIGMA)

Below is a link to our interactive prototype:

https://www.figma.com/proto/qDfZzx2HKr5939 1OIawLmC/Team-12E-Stage-D-High-Fidelity-Pro toype?node-id=92%3A98&scaling=scale-down

Labelled High Fidelity Prototypes

All wireframes featured in the high fidelity prototype have been analysed and labelled. The aim was to showcase particular design decisions of the application in regards to Shneiderman's 8 Golden Rules, Norman's Principles and other laws of user experience.

Shneiderman's 8 Golden Rules: Strive for Consistency

Main colours throughout the app is blue and white

User Story:
As a user I want to be able to log and view my entire vaccination history.

Shneiderman's: Keep Users in Control

Watermark tells the user what is expected in the box

Symbolic Icons - Depicting a reference towards a person and a lock for a password

Fitt's Law:

Big Sign in button tells users it would take less time to press it

Underline refers to a hyperlink, also keeps users in control to those who doesn't have an account

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Welcome!
Your one stop solution for all vaccination needs

Sign in to view your account details

Phone Number, Email or Username

Password

Forgot your password?

Sign in

Don't have an account? Sign up

Book Appointments and Track your vaccination progress

Phone Number, Email or Username

Password

Forgot your passsword?

Sign in

Don't have an account? Sign up

Up-to-date information regarding immunizations

Phone Number, Email or Username

Password

Forgot your password?

Sign in

Don't have an account? Sign up

Symbolic Icon:
Back Button
keeps users in control

Watermark to let users know what information needs to be input

Create account

Shneiderman's 8 Golden Rules: Strive for Consistency
Main colours throughout the app is blue and white

Symbolic Icons:
Depicting a reference towards a person and a lock for a password

Username

Password

Email

Phone Number

Fitt's Law:

Big sign up button tells users it would take less time to press it (leads to home page)

Sign Up

Name of the app
shown on top

Serial position effect theory for the top
header and bottom navigation bar

Symbolic Icon:
Hamburger, to show extra
navigation screens that
was not shown in the
bottom navigation bar

VacTrack

Wash your
hands

Use a tissue
for coughs

Avoid touching
your face

Arbitrary Icons:
Used to depict a settings
icon
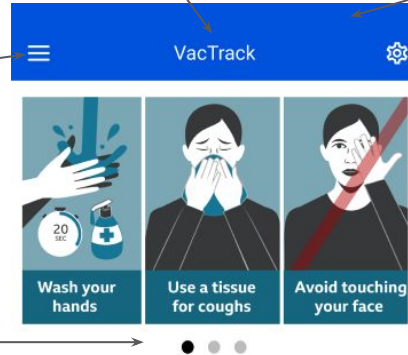
Shows which slide the
user is currently in

Recommended For You   See all

Measles Vaccine
Measles is a highly
infectious viral illness that
is transmitted by
respiratory aerosols.

Corona Vaccine
Newest type of vaccine
available on the market,
highly recommended by
health officials to get
immunized

Chicke
Recomm
aged 12 m
Highly co
causes in

Underline refers to a hyperlink,
allows user to easily navigate
through the whole list

Bold Lettering
shows the
information being
delivered

Click Here to continue reading

Click Here to continue reading

Click Here

Recently Viewed   See all

Adenovirus

Hepatitis A

HIB - Type B
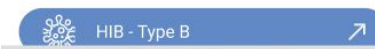
Highlighted Text shows
which screen the user is in

Home   Maps   Calendar   Information   My Records
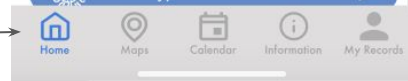
Hick's Law:
Theory for the navigation bar on the
bottom screen as it only show 5 choices
of where would you like to navigate to

Navigating to next month

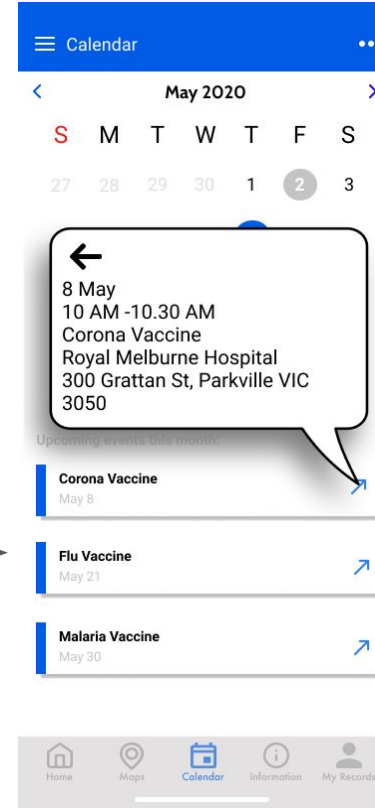**Shneiderman's 8 Golden Rules: Strive for Consistency**
Each shapes and font conform to the style of the entire application.

Onclick will open a Pop-up text not a new screen

Norman - consistency: Items that have similar visuals should perform similar functionality.

User Story :
As a user, I want to have a schedule/calendar for pending vaccines so that I can book vaccinations for myself or children based on my working time.

User Story:
As a user I want to be able to log and view my entire vaccination history.
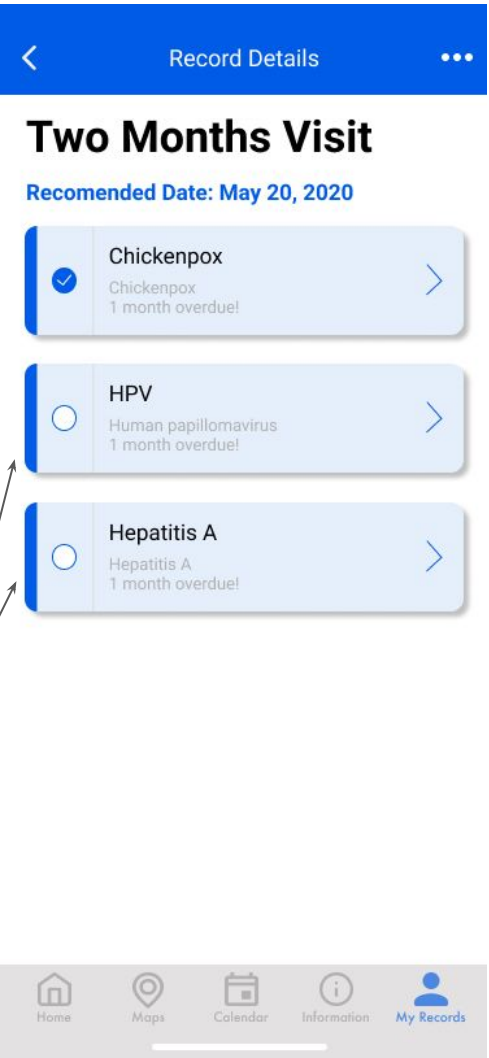
Referred App:
CANImmunize
ReadyVax

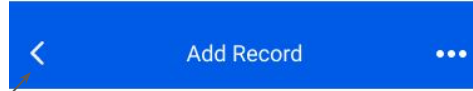**Font Guideline:**
iOS font size guidelines
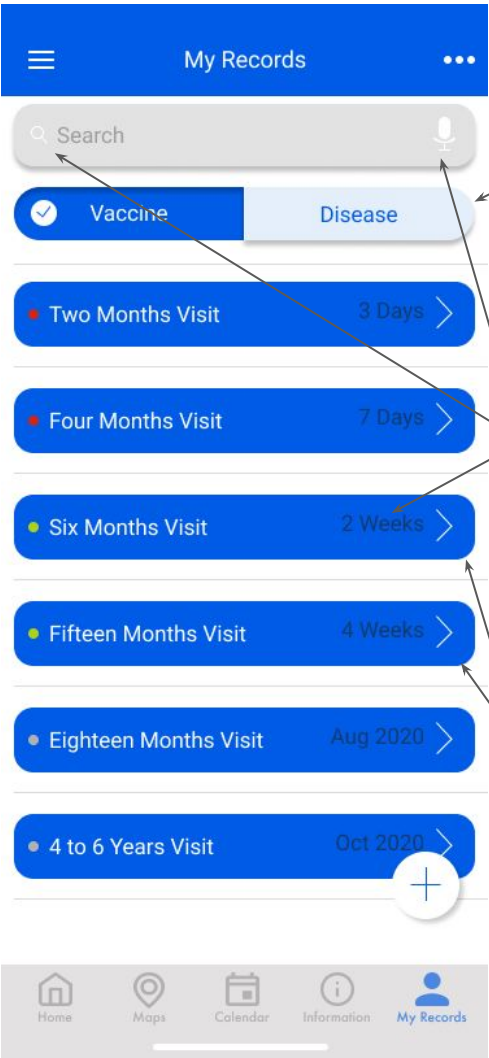
Norman - Feedback:
The visual segmented control helps provide feedback to users

The icons and the text for list items help improve accessibility for disabilities such as blindness and cognitive impairment

Law of Proximity:
Group similar objects together to help users understand and organise information more efficiently

My Records

Search

Vaccine   Disease

Two Months Visit   3 Days

Four Months Visit   7 Days

Six Months Visit   2 Weeks

Fifteen Months Visit   4 Weeks

Eighteen Months Visit   Aug 2020

4 to 6 Years Visit   Oct 2020

Home   Maps   Calendar   Information   My Records

Record Details

Two Months Visit

Recomended Date: May 20, 2020

Chickenpox
Chickenpox
1 month overdue!

HPV
Human papillomavirus
1 month overdue!

Hepatitis A
Hepatitis A
1 month overdue!

Home   Maps   Calendar   Information   My Records

The back buttons to keep users in control

Shneiderman - Closure: The process design dialogs to yield closure
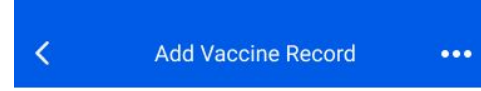
Fitts's Law - All the buttons for these process are large enough for users to select them
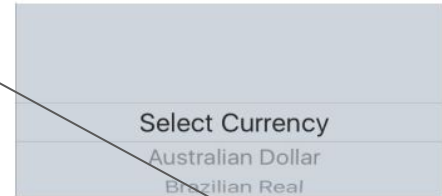
Hick's Law - Highlight the Next and Submit button to avoid overwhelming users

Shneiderman - The Cancel button and the Start again permit **easy reversal of actions**

The menu keeps consistent with other functionalities

References: https://1stwebdesigner.com/beautiful-ios-11-app-design/
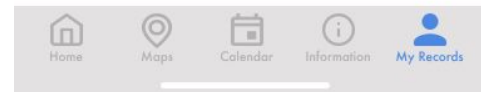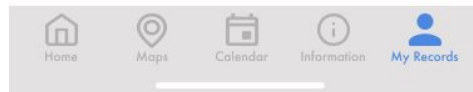https://uxplanet.org/10-latest-mobile-app-interface-designs-for-your-inspiration-405a98c10831

Hick's Law:
As a result of Hick's Law, the number of vaccinations can be exhaustive and hard to navigate. To counteract navigating a long list the list is ordered and additionally there is a search bar.

Shneiderman - Strive for Consistency:
Consistent flat blue theme as seen throughout the app

Symbolic Icon:
The share button is an example of a symbolic icon is a reference or analogy to the sharing functionality of the button.

User Story:
As a user, I want to track real-time vaccine information about safety and target people so that I can save my time for looking for vaccine in healthcare center and be efficient.
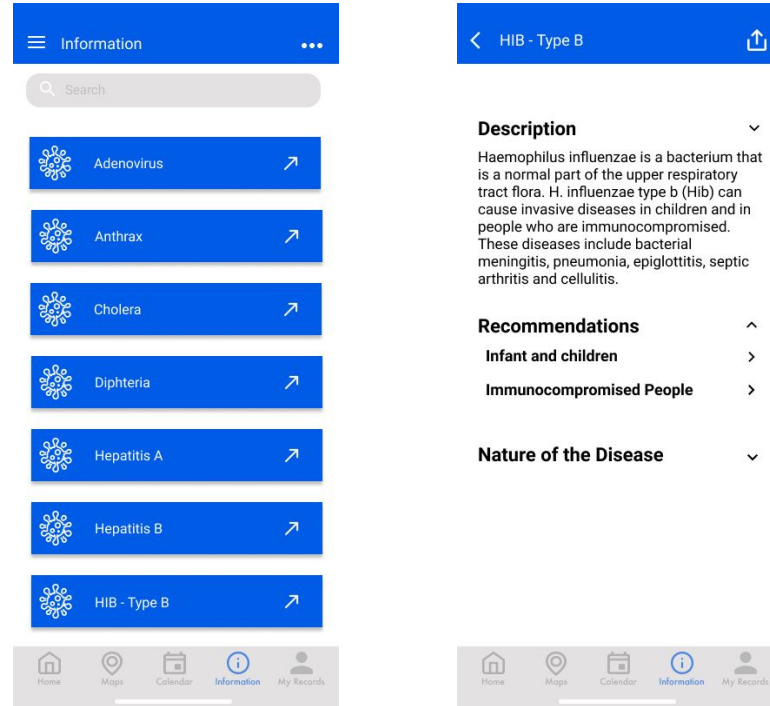
Norman - Affordance/Signifier:
List items have slight drop shadow which indicates clickability. Each item also has an arrow which signifies navigation to another, more detailed page.

Shneiderman - Reduce Short-term Memory Load:
As there is potentially a lot of information that can be displayed, they are initially in a collapsed state. The user can then choose which section of information to expand and read.

Information

Search

Adenovirus

Anthrax

Cholera

Diphteria

Hepatitis A

Hepatitis B

HIB - Type B

Home   Maps   Calendar   Information   My Records

HIB - Type B

Description
Haemophilus influenzae is a bacterium that is a normal part of the upper respiratory tract flora. H. influenzae type b (Hib) can cause invasive diseases in children and in people who are immunocompromised. These diseases include bacterial meningitis, pneumonia, epiglottitis, septic arthritis and cellulitis.

Recommendations
Infant and children
Immunocompromised People

Nature of the Disease

Home   Maps   Calendar   Information   My Records

Map displays nearby healthcare centres relative to the user's current location.

User Story: As a user, I want the app to display healthcare centres with available vaccines on a map based on my location so that I can choose a healthcare centre based on the distance.
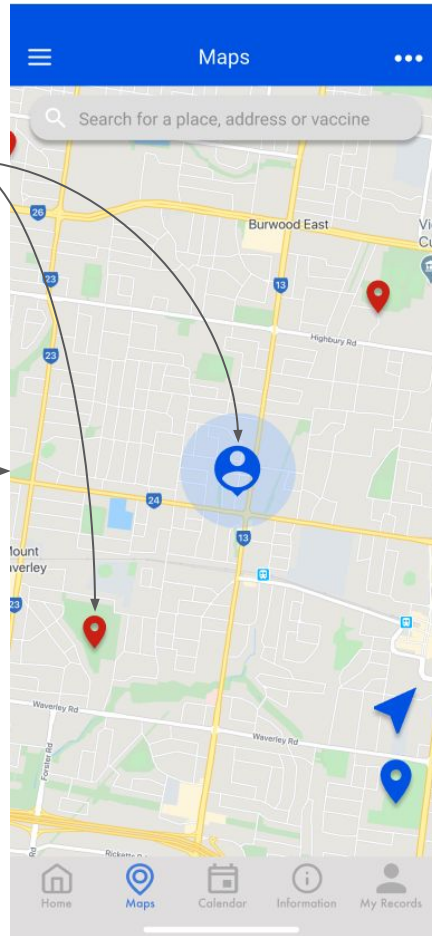
The general map screen follows the layout of the Google maps app. Many apps which has a map related functionality use Google maps and most users will recognise the placement of the recenter and pinpointed location buttons
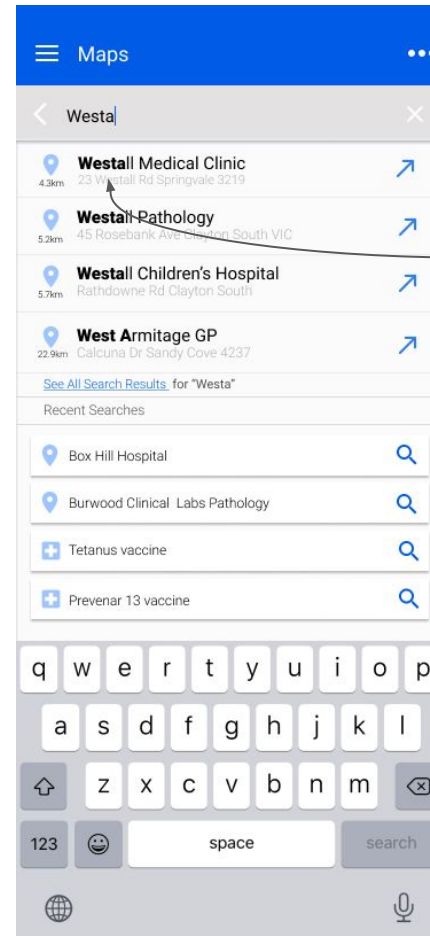
Shneiderman - Offer informative feedback: letters/words directly relevant to the user's search is bolded to let them know how the results are related to their search.

Shneiderman - Reduce Short-term Memory Load: A "Recent Searches" section in the search drop-down saves and displays the user's most recent search history to reduce short term memory load.

Maps

Search for a place, address or vaccine

Burwood East

Highbury Rd

Mount Waverley

Waverley Rd

Home   Maps   Calendar   Information   My Records

Maps

Westa

Westall Medical Clinic
4.3km 23 Westall Rd Springvale 3219 ↗

Westall Pathology
5.2km 45 Rosebank Ave Clayton South VIC ↗

Westall Children's Hospital
5.7km Rathdowne Rd Clayton South ↗

West Armitage GP
22.9km Calcuna Dr Sandy Cove 4237 ↗

See All Search Results for "Westa"

Recent Searches

Box Hill Hospital 🔍

Burwood Clinical Labs Pathology 🔍

Tetanus vaccine 🔍

Prevenar 13 vaccine 🔍

q w e r t y u i o p
a s d f g h j k l
z x c v b n m
123 space search

Consistency: universal and recognisable pull and drag tag indicates that the pop-up window can be dragged down to go back to the full screen map.
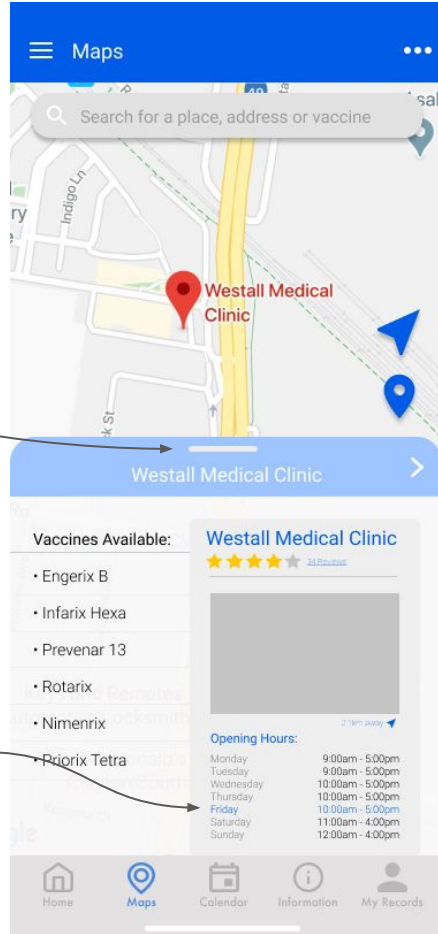
Von Restorff effect:
Current day of the week is highlighted for users to easily see the most likely information they need out of the list of date and times.
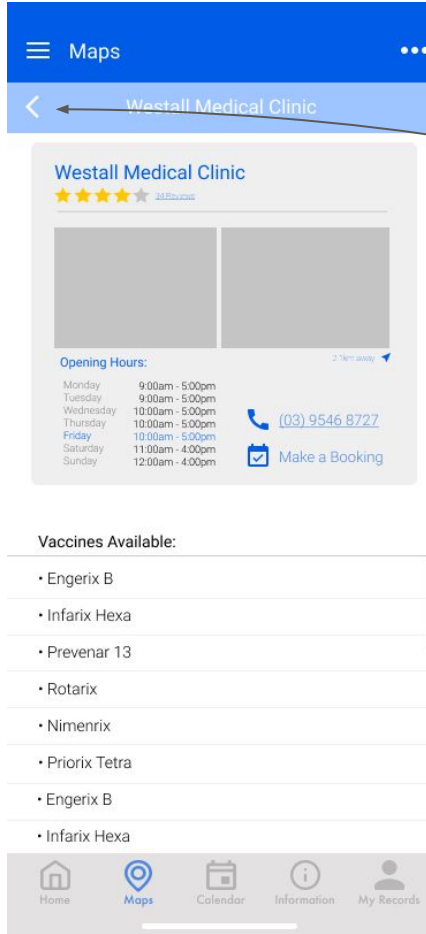
Back tab **permits easy reversal of actions.**

Norman - Feedback:
Scroll bar indicates length of list and where on the list the user is currently at.