

Assignment 2

Deadline: Check the calendar of your course shell

Learning Objectives

The learning objectives of this assignment are:

- Learning the procedure of needfinding
- Learning the procedure of Comparative Analysis
- Creating the high fidelity prototype for your application

Assignment Steps

P1) Procedure of NeedFinding (25%)

Study the [Need Finding](#) document and answer all the questions **highlighted in blue**. In addition, Follow the "Steps of Needfinding" and write your solution for each step. You can also watch [these videos](#) to learn more about Needfinding & Requirements Gathering

P2) Procedure of Competitive Analysis (25%)

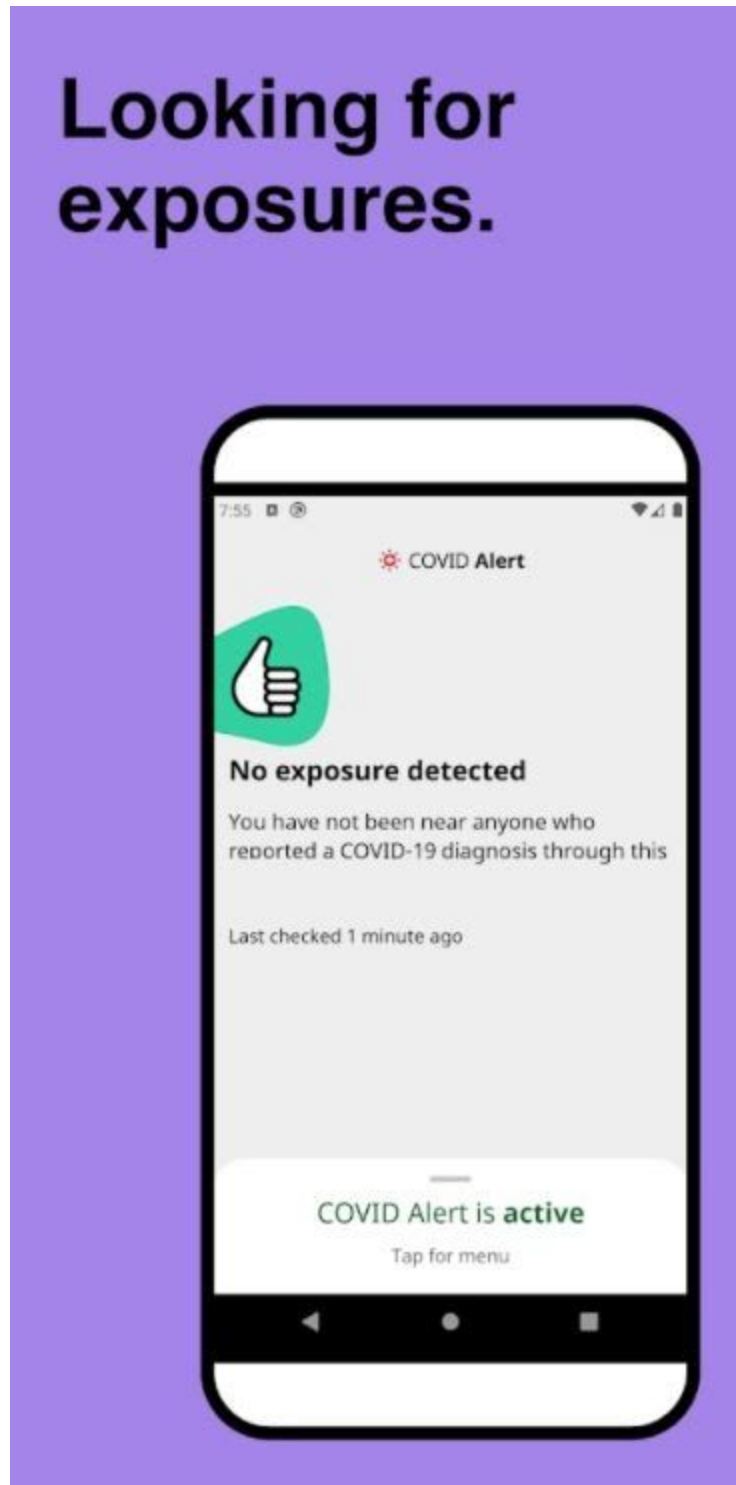
Competitor analysis in marketing and strategic management is an assessment of the strengths and weaknesses of current and potential competitors. This analysis provides both an offensive and defensive strategic context to identify opportunities and threats. Profiling combines all of the relevant sources of competitor analysis into one framework in the support of efficient and effective strategy formulation, implementation, monitoring and adjustment [[1](#)]. In the first assignment, you provided similar applications to what you are going to develop. Regardless what you are developing, it is always possible to find the applications with similar themes. In this part, you need to compare your application with competitors in a matrix. **Please write the name top five competitor apps.**

Ans: The top five competitor apps:

- 1. COVID Alert - Let's protect each other**
- 2. Canada COVID-19**
- 3. BC COVID-19 Support**
- 4. COVID-19!: The current spread of disease**
- 5. HEALTHLYNKED COVID-19 Tracker: Coronavirus tracker**

Use their products/services to understand how their business is structured.

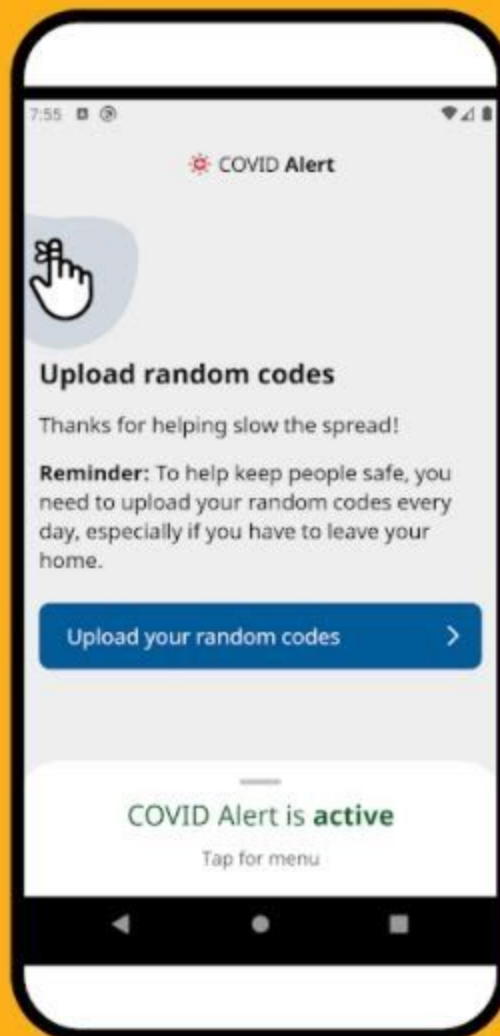
1. COVID Alert - Let's protect each other(App1):




Looking for exposures.



Join the effort to slow the spread.



Your privacy is protected.

A smartphone screen with a white background and a black border. At the top, the status bar shows the time 10:08, a signal strength icon, and a battery icon. Below the status bar, there is a 'Cancel' link. The main heading is 'Enter your one-time key'. Below this, a subtitle reads 'Enter the key you got when you were diagnosed.' A text input field contains the alphanumeric string 'ALRCVD19'. Below the input field is a blue button with the text 'Submit'. At the bottom of the screen is a black navigation bar with three white icons: a back arrow, a home circle, and a recent apps square.

10:08

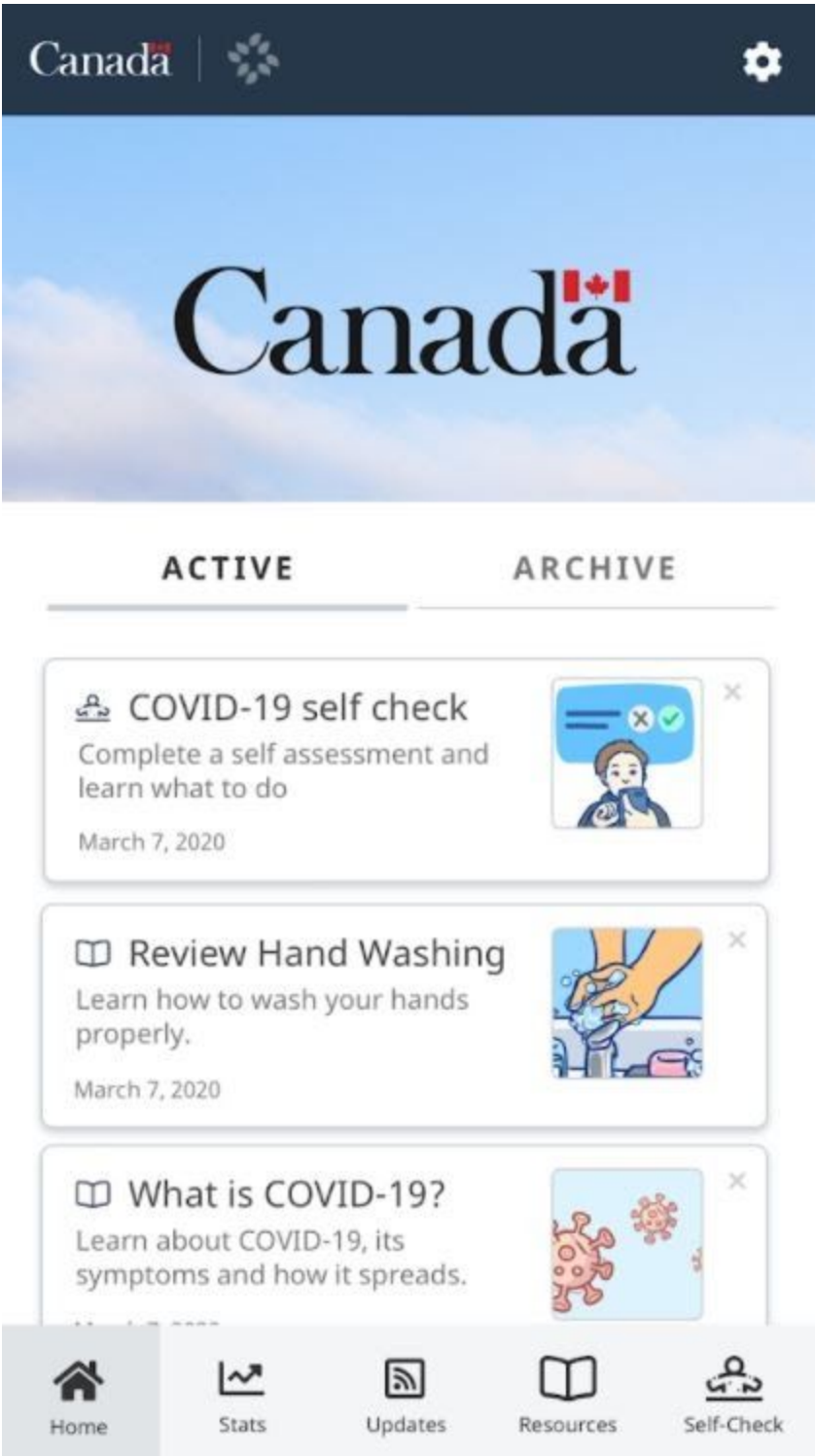
Cancel

Enter your one-time key

Enter the key you got when you were diagnosed.

Submit

2. Canada COVID-19 (App 2):



Updates

TODAY'S UPDATES



BC Gov News

Mar 21, 2020 10:50 AM

Government acting to protect province's most vulnerable during COVID-19 crisis

As British Columbias work to reduce the spread of the coronavirus, the Province is taking swift action to protect vulnerable...

PREVIOUS UPDATES



Health Canada

Mar 20, 2020 12:06 PM

No scientific evidence that ibuprofen worsens COVID-19 symptoms

OTTAWA - Health Canada is aware of reports, including on social media, that reference safety issues with the use of...



BC Gov News

Mar 21, 2020 10:50 AM



Home



Stats



Updates

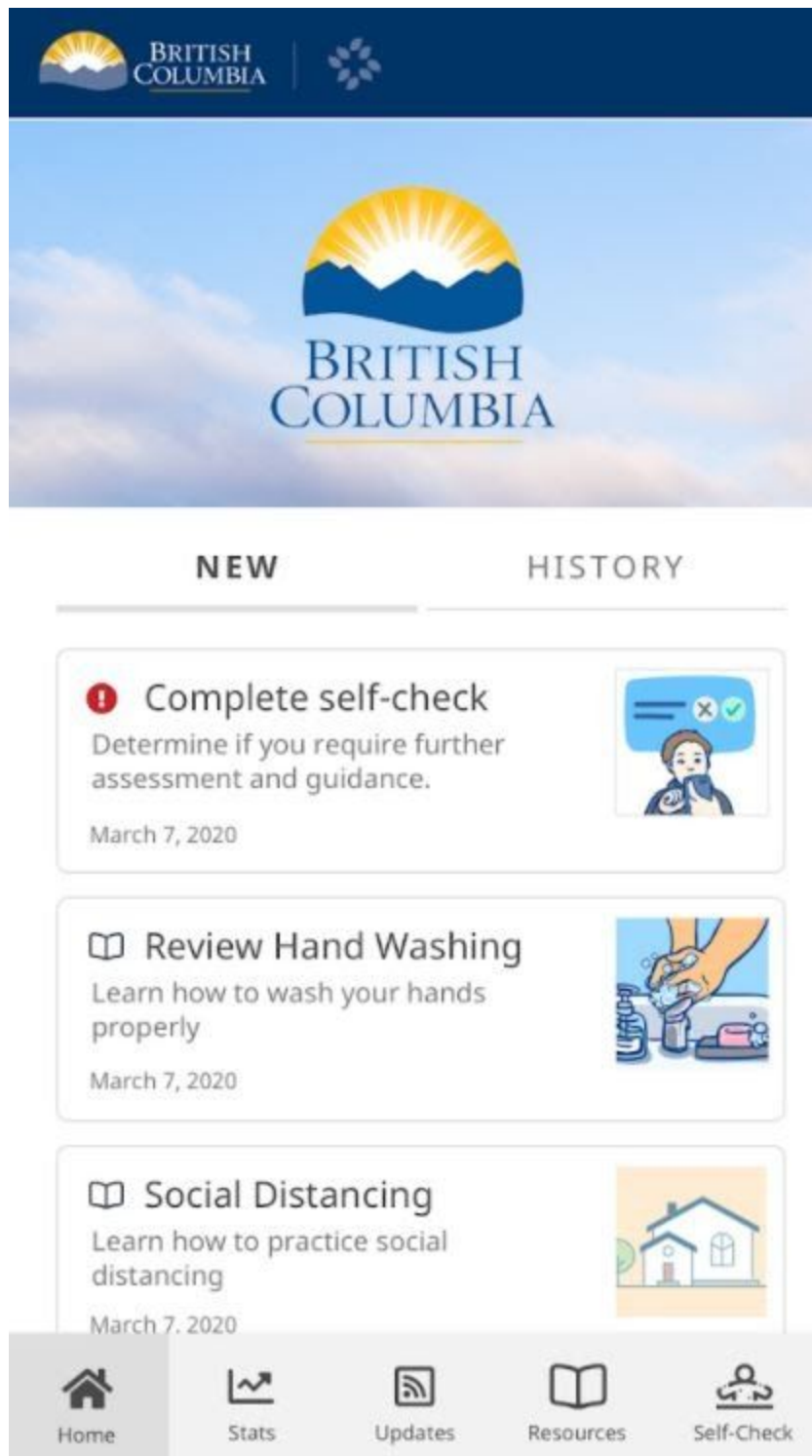


Resources



Self-Check

3. BC COVID-19 Support (App 3):



TODAY'S UPDATES



Ministry of Health BC

March 9, 2020 (3:45 PM)

Latest case counts on novel coronavirus

A new coronavirus is causing a respiratory infection known as COVID-19. BC has 32 confirmed cases, however, the risk of the...



BCCDC

March 7, 2020 (3:40 PM)

#COVID19 update: @WHO declared the outbreak a pandemic: <http://ow.ly/45dN50yJAKa>



BC Ferries

March 7, 2020 (3:40 PM)

#CurrentConditions as of 6:31 pm
#Tsawwassen - #DukePoint next scheduled sailing at 8:15 pm - 41% full. Keep up to date with conditions here: <http://ow.ly/xUaq30qp9Vr>
^sd

PREVIOUS UPDATES



BCCDC

March 7, 2020 (3:40 PM)

#COVID19 update: @WHO declared the outbreak a pandemic: <http://ow.ly/>



Home



Stats



Updates



Resources



Self-Check

4. COVID-19!: The current spread of disease (App 4):



11:37

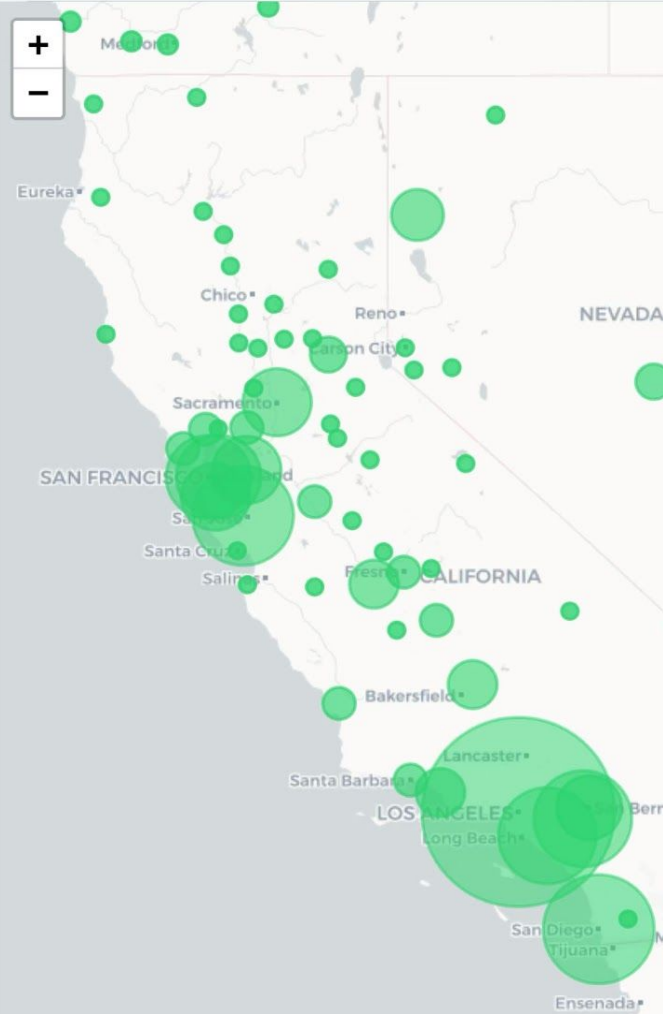


Infected areas



Currently displayed

Total infected ▼



Leaflet | © OpenStreetMap contributors, © CARTO



Stats



News



Maps



Symptoms



Help

11:37



Statistics



First positive case

10.01.2020

Total Serious

2.92%

Mortality

6.05%

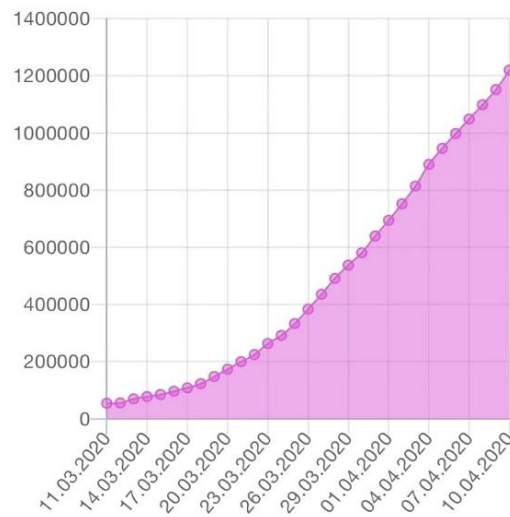
Current number of infected

1,225,123

Total tested people

13,364,066

Current number of infected



Stats



News



Maps



Symptoms



Help

11:23

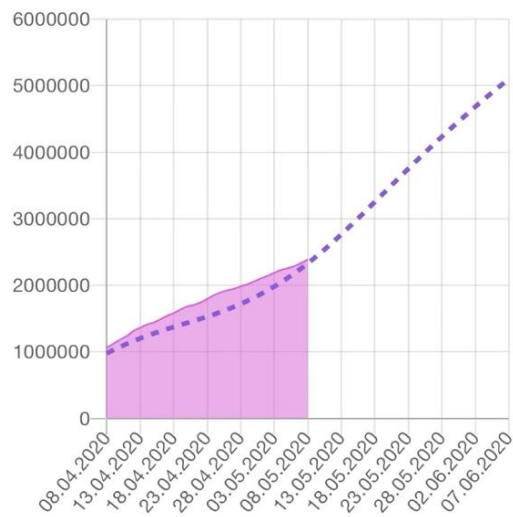


Statistics

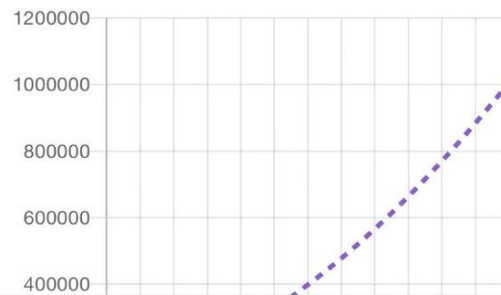


APPROXIMATE FORECAST OF DEVELOPMENT

Prediction of the current number of infected



Mortality prediction



Stats



News



Maps



Symptoms



Help

3:30



Statistics

All

My country

Czechia

change

Total Confirmed Cases



464

Total Deceased



0

Total Serious



3

Total Recovered



3

Total Countries Infected



144/193

RECOVERED

0.65%

Last update 14:30:01 18.03.2020

Source WHO, Worldometers.info



Stats



News



Maps



Symptoms



Help

3:30



Symptoms

Common symptoms of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In more severe cases, the infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death.

Fever	87.9%
Dry cough	67.7%
Fatigue	38.1%
Sputum production	33.4%
Shortness of breath	18.6%
Muscle pain or joint pain	14.8%
Sore throat	13.9%
Headache	13.6%
Chills	11.4%
Nausea or vomiting	5.0%
Nasal congestion	4.8%
Diarrhea	3.7%
Haemoptysis	0.9%



Stats



News



Maps



Symptoms

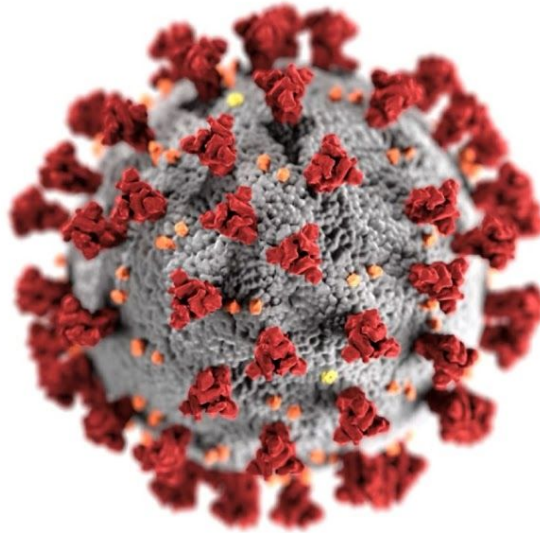


Help

3:30



Helpful information



How do you get infected?

- The main route of transmission is respiratory droplets and close contact with infected people.
- 1.

- When you sneeze or cough, you produce droplets of fluid from your nose and mouth.
- 2.

- These droplets can carry infection which can be spread to others by entering their eyes, nose or mouth. This
- 3.



Stats



News



Maps

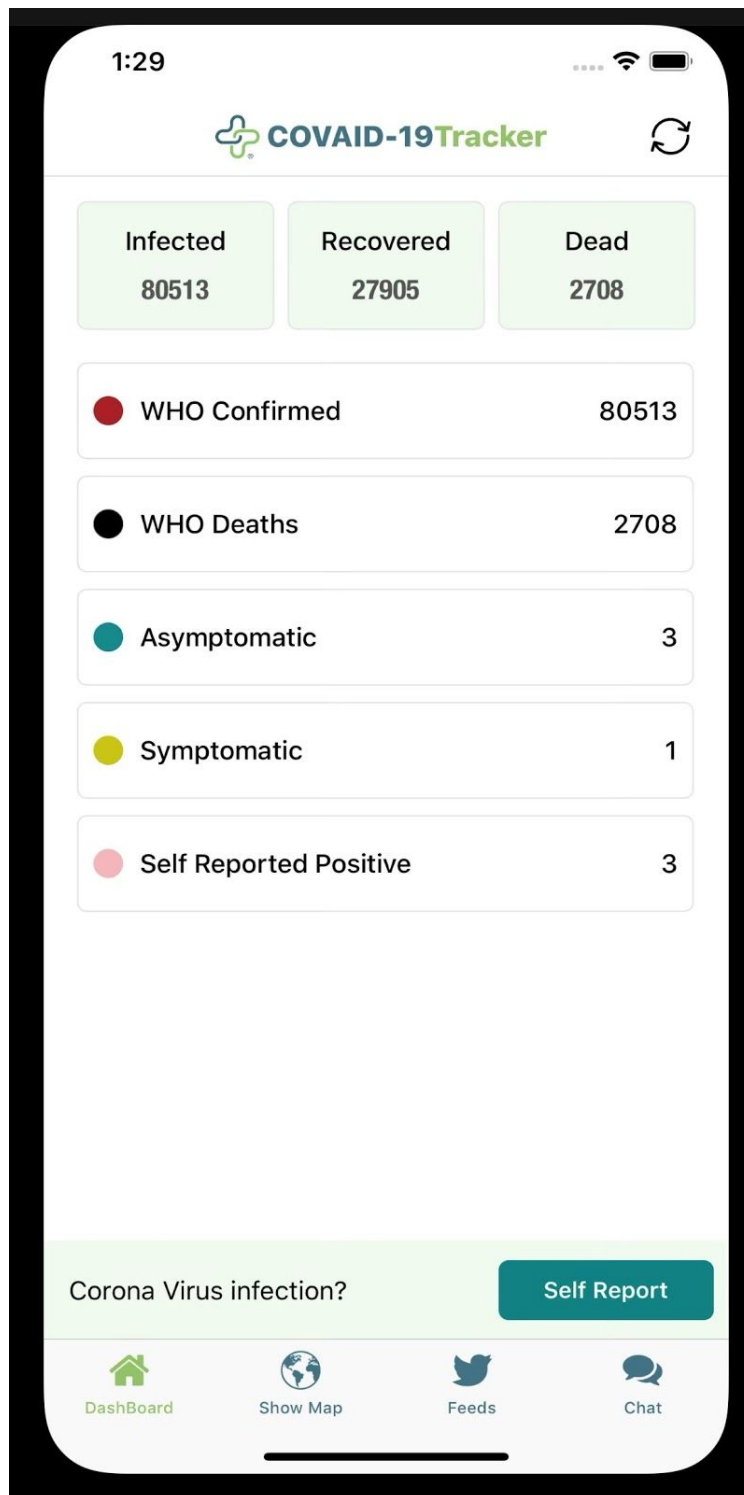


Symptoms



Help

5. HEALTHLYNKED COVID-19 Tracker: Coronavirus tracker (App 5):

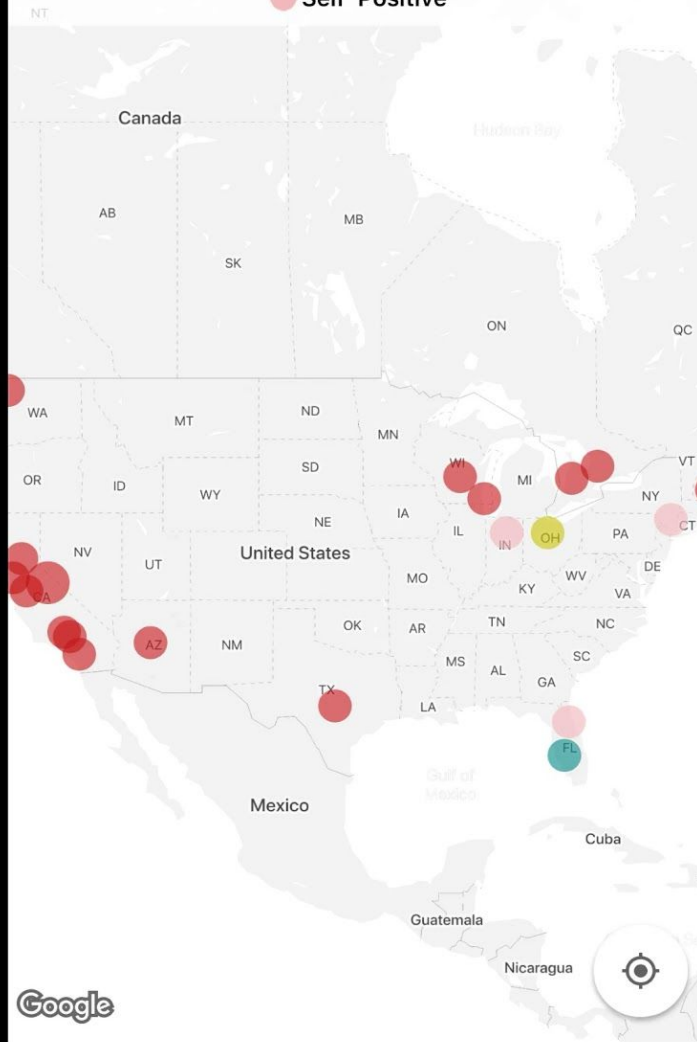


1:29



COVAID-19MAP

- WHO Confirmed
- WHO Deaths
- All
- Asymptomatic
- Symptomatic
- Self Positive



Google

 Dashboard

 Show Map

 Feeds

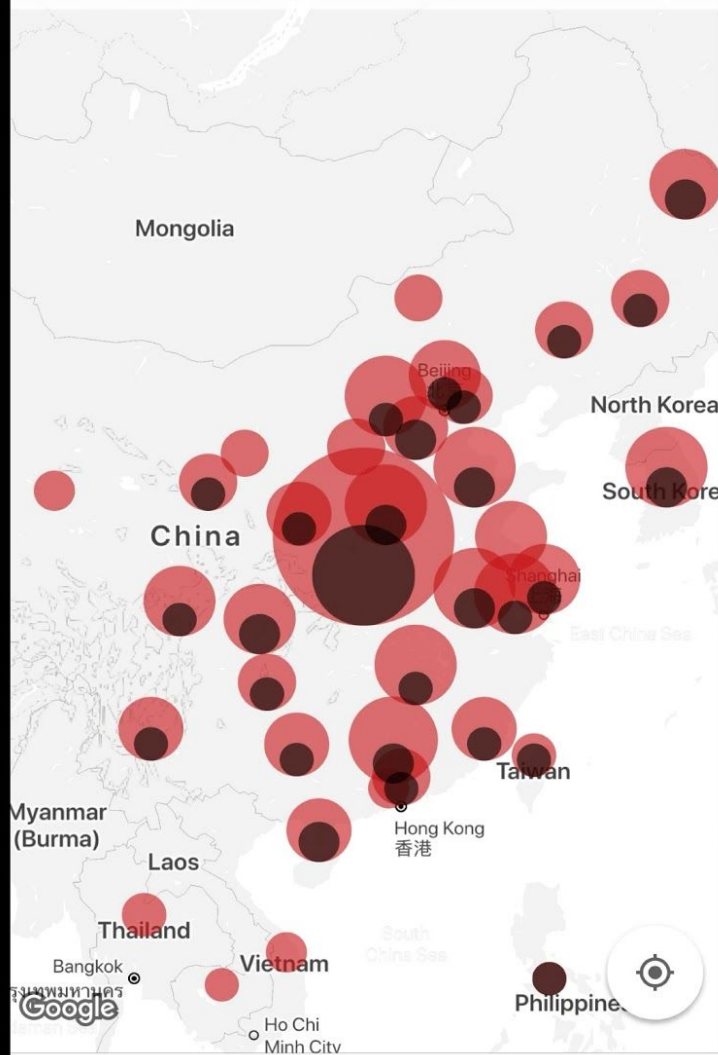
 Chat

1:30



COVAID-19MAP

- WHO Confirmed
- WHO Deaths
- All
- Asymptomatic
- Symptomatic
- Self Positive



- DashBoard
- Show Map
- Feeds
- Chat

1:30



Boardingarea.com

Delta Issues Coronavirus Travel Change Waiver for Several Italian Destinations

1:22 AM on February 27, 2020



Nzherald.co.nz

A2 Milk lifts net profit by 21.1% in first half, China sales leap

1:20 AM on February 27, 2020



Dailymail.co.uk

Tourists desert coronavirus-stricken Milan: Italian city's streets are empty

1:20 AM on February 27, 2020



Nzherald.co.nz

Trump to detail US coronavirus efforts, top Democrat seeks \$13.5b

1:20 AM on February 27, 2020



Sputniknews.com

Online Platforms Struggling to Combat Spread of Coronavirus Misinformation

1:19 AM on February 27, 2020



Dezeen.com

Milan's fuorisalone design events scramble to reschedule following Salone del Mobile postponement

1:19 AM on February 27, 2020



Dashboard



Show Map



Feeds



Chat

1:30



[SignUp](#)

Login to Chat



HealthLynked

EMAIL

PASSWORD



☐ Login Anonymously

Login

[Forgot Password?](#)

By signing in, you agree to our **Terms of use** and confirm that you've read our **Privacy Policy**. You may get email notifications from HealthLynked and you can opt out anytime.

[Skip Login Enter the Chat Room](#)



Dashboard



Show Map



Feeds



Chat

1:30



Profile Corona Virus Production (11) ...



HLUSER-1581340168454
are you from florida?

2:31 AM



HLUSER-1582136746328
yes

2:31 AM



HLUSER-1581340168454
do you have any mask for
sale?

2:31 AM



HLUSER-1581323466589
I am looking for some mask in
Texas area as well

1:12 PM



iGUEST-hrgRTv
This is really nice feature

7:23 PM



HLUSER-1581340168454
the link to the company at the
bottom of the page
Medofficedirect has some

7:28 PM

they are hard to find anywhere
these days

7:28 PM

all the supplies have been
taken

7:28 PM



iGUEST-jtSRI7
Yeah I even I tried from amazon
could not any

10:05 PM

● Your message

SEND



Dashboard



Show Map



Feeds



Chat

Study ["A Product Designer's Guide to Competitive Analysis"](#) article and based on the given guidelines **draw the Competitor Analysis Matrix** while one of the columns is dedicated to your product. A typical competitor analysis matrix contains the following (yours should at least contain them as well):

1. Features/solutions of the platform you are building.
2. Confirmation that the competitors have/don't have the same feature/solution.
3. Score — you can assign a certain number of points to each of the features based on their importance. For example, in the sample above, chat may carry 10 points and stories may carry 5 points. Add all the points together and divide by the number of features = competitor score in percentage. The visual design, overall user experience, and performance of each of the platforms you analyzed may also be included.

Competitor Analysis Matrix

App Name	Notifications	Bluetooth (Proximity Alerts)	Location	Validation	Username/ User profile	Postal Code	Score
Better Life (My App)	✗	✗	✗	✗	✗	✗	0
COVID Alert - Let's protect each other	✓	✓	✓	✓	✓	✓	6
Canada COVID-19	✓	✗	✓	✗	✗	✓	3
BC COVID-19 Support	✓	✗	✓	✓	✓	✗	4
COVID-19!: The current spread of disease	✓	✓	✓	✗	✗	✓	4
HEALTHLYN KED COVID-19 Tracker: Coronavirus tracker	✓	✗	✓	✗	✓	✗	3

The highest score is = 6 (COVID Alert - Let's protect each other app)

The lowest score is = 0 (Better Life (My App))

Identify any UX/HCI issues with a competitor's product and **create a comprehensive list of UX/HCI issues of your competitors here**. This list will help you learn from other people's mistakes. After identifying UX issues, look for any visual design shortcomings. For example, how well are the calls to action designed and what kind of color palette are they using? This will help you design a better visual experience for your product.

Hint: To find common UX/HCI issues, more than the main article, search for them. For example, you can find articles such as [9 Usability Issues that Plague Today's Mobile Apps](#) or [19 common UX problems and how to fix them](#).

Ans:

1. They don't provide updates on OS versions frequently, which leads to them having a blind eye and disregarding any bugs that devices come across.
2. Natural language hints, it's where the user wants to enter data without having to worry about formats
3. No auto-filled customer data, it's where a consumer has to enter their data every time they need to use a website or app.
4. Deep Navigation, it's where you have to go really deep on a website or app to get to the point you want to.
5. Too many taps, it's where you have way too many taps necessary to get a task done on a website or on an app.

Identify any UX issues within **the initial prototype you created** in the first assignment and create a list of UX/HCI issues of your prototype here

Ans:

1. Disregarding landscape mode
2. No auto-filled customer data
3. Unresponsive gestures
4. Ignoring different platforms
5. Too many taps

P3) Your second prototype using Figma(25%)

Do NOT overwrite your first design. Copy what you created in first assignment, and start working on a separate copy of your design.

Study [Perfect Your UX Design Process – A Guide to Prototype Design](#) to learn about steps of creating a better prototype. Choose the best ideas of your first design and remove the issues you made in first design.

1. **Provide screenshots of your final design which contains all the features of the app you are designing.**
2. **Provide a public URL of your Figma design.** The prototype should be workable (clicking on the menus, icons, etc should show the interface or move to the next screen)
3. Create a video of interactions with audio narration, and upload to YouTube (Or upload on Slate/OneDrive if you have privacy concerns). Go through all the screens and talk about what the app is capable of. You can watch [this video](#) to see how to record it or simply use [OBS](#). Provide the URL of video in the document.

P4) GitHub and new features (25%)

Create a GitHub repository and upload your figma file there and write a short description with some screenshots, public URL of your figma design, and your vide URL (if uploaded on YouTube) in README. Share the URL of GitHub in the document you submit for the assignment. Good GitHub repository and documentation and video preparations will receive **bonus marks** .

Based of the process of Need Finding and Competitive Analysis, write top five **new** desirable functionlities (such as having the ability of helping people in need such as elderly people) in the COVID-19 app that you have not seen before in any other apps. Please add these to your README on GitHub.

Optional (but recommended): Share your GitHub URL in [this page](#). This helps everyone in this course look at your design and we collaborate together to discuss about the prototypes

URL: <https://github.com/sahil2016sam/BetterLife-COVID-19-App>

Submission

This is an individual assignment

Do NOT zip the PDF files and fig files. Submit them separately

The deadline is based on what you see on the course shell.

You should submit a single PDF containing all parts, including screenshots of screens of your prototype, and share the link of your prototype on Figma and GitHub repository in a PDF file

Submit the fig file of your prototype separately in assignment dropbox as well. Please do not overwrite the previous fig file. You can copy a new version and work on it. Late submission will receive 10% deductions per 24 hours up to 72 hours. After 72 hours, 0 will be assigned

Needfinding

There are multiple ways to find product opportunities, including technological approaches, market approaches and user-focused approaches. Again, the majority of products are often a combination of two or more approaches. However, these are all merely the beginning of the needfinding process. While aging baby boomers is a market change that may encourage an increase in products geared towards geriatrics, it does not specify which type of product to create and for what activity. Therefore we turn to the needfinding process. This chapter will discuss the five stages to needfinding:

1. Identify activity or tasks
2. Form hypothesis
3. Desk research
4. Field research
5. Observations/interviews

Successful products

Before diving straight into needfinding, it is important to know how successful products happen. The principle is quite basic, a successful product needs to satisfy compelling, unmet user needs. Compelling so that consumers will be willing to spend money on it and unmet so that the products stand out in a large market. Finding the right need gives a product this competitive advantage. Be careful not to pursue a design concept because it is “interesting”. The best products are not always mind-blowing, they can be basic functionalities with only slight changes in details.

1. Who are the end-users (audience) of the app you designed a prototype for?

Ans: The end-users (audience) of the app I designed the prototype for are seniors, people with disabilities, and people that need or want to be updated about statistics and guidelines daily during COVID-19.

2. What should you consider for each group of audience for your app?

Ans: I personally think that what I should consider for each group of audience for my app is the:

- **Statistics:** In terms of what country the consumer lives in for their own personal and necessary statistics.
- **Guidelines:** This is where how accurate the information that describes and informs consumers on how not to get COVID-19.

3. Find similar successful apps to your application, and investigate what users liked or disliked about the application. Mention the top five apps almost similar to yours.

Ans:

1. COVID Alert - Let's protect each other (App 1):

"I strongly support the principle behind this app and all measures to protect the users' privacy however it would be a HUGE asset to be alerted with a date of exposure, if not a date and time. It would help users identify how long to wait to get tested (asymptomatic individuals should isolate but wait 3-5 days to get swabbed to minimize false negatives) as well as to help with contact tracing. It would also possibly help users identify which activities they are doing are higher risk" - Angela Bagatto (Google Play Store)

2. Canada COVID-19 (App 2):

"For such a simple app, it sure is slow. You tap an option (such as the check-in option) and you wait 5 seconds before anything happens with no indication that your tap actually registered. And it's not like the next screen has anything complicated that it needs to be "loading" either. It's just text. So what's up?" - Kevin Guertin (Google Play Store)

3. BC COVID-19 Support(App 3):

"The app recommended I get tested. I already know where the nearest testing centre is so I thought that was it, just show up. Nothing in the testing instructions was said about making an appointment until I drilled down to search the location for hours of operation. There in tiny tiny letters it says 'Appointment Required'. The finder app uses Chrome. Clicking on the text field pops up the keyboard and then closes it. So you can't type in your location to search. Pixel 3XL, Android 10" - John Taylor (Google Play Store)

4. COVID-19!: The current spread of disease(App 4):

"The app is giving wrong number of cases there are only 22000 in my area but it says 24000 please fix. I live in Ontario but the rest of the info is very nice. I would recommend but just do not trust the numbers too much" - Dustin629 (Apple App Store)

5. HEALTHLYNKED COVID-19 Tracker: Coronavirus tracker(App 5):

"Great app, nice UI, but the data doesn't update frequently as it seems to be behind a day. Love the app though, not a big problem" - Scottboss1235 (Apple App Store)

Needfinding

Needfinding is one process through which we can understand our user needs better. Understanding needs are important as they are often overarching while solutions can constantly change. Additionally, needs can be addressed immediately and accurately whereas predictions about the future are not. Understanding needs leads to better development of the product.

There are two types of needs: expressed and latent. Expressed needs are those that the user directly states, such as “I need a system to keep track of when to take which medication” or “I need a way to communicate with my family when we are apart”. Latent needs are those that users themselves do not know exist. People are very good at work-arounds. We can perform most activities with our existing tools, even if a new product may simplify the task. The Swiffer was created when the designer saw his friend mop up a spilled drink with his sock-covered foot, and proceed to toss the sock out. The mop, which required water and reusing was not as efficient as tossing out a cheap sock. Thus, a latent need for the Swiffer was discovered.

1. What examples of latent needs can you think of?

Ans: The examples of latent needs I can think of are productivity, usability, and convenience.

2. What are good ways of finding latent needs?

Ans: Some good ways of finding latent needs would be by taking a qualitative approach followed by qualitative research. This way, you can verify findings with, particularly large samples.

Principles of Needfinding

Finding latent needs can be difficult. Luckily, there are a few simple principles that make it easier.

1. *Focus on the needs and not the solutions as that will limit opportunities.*
If a room is too hot, do not say fan, but state that the room is too hot.
2. *Go to the customer's environment as it makes the need more specific.* By immersing yourself in the need group, you would be able to view its problems with "fresh eyes". The Facebook mobile app was done awfully because the software engineers rarely leave the office and use mobile applications. As a result, by not being the user, they could not figure out specific need.
3. *Go beyond the obvious problem.*
4. *Collect different types of data, including notes, photos, video and audio* Interviews and observations and data from objects used can all tell different stories. Make findings tangible so that they may be communicated and presented to others.
5. *Iterate*

Steps of Needfinding

1. *Identify a user group and a task (or activity) to study*
Set an accurate scope when selecting the user group and activity combination; too broad of a combination prevents focus and too specific limits opportunities.
Example: home-bound elderly + medication management, families with children + travelling, undergraduates + timekeeping
2. *Form hypotheses about the activity*
Create hypotheses that can be tested through observations and interviews. E.g. Undergraduates + timekeeping, hypothesis: "College undergraduates use their cell phones to tell time and therefore don't wear wristwatches anymore"
3. *Gather data about the activity*
 - a. *Desk studies*
Before conducting field research, perform desk research to find existing solutions. This may include benchmarking, trips to physical stores or online research. Note the different users for different solutions. E.g. a "consumer" vs "professional" model of refrigerator. The large silvery look that fridges have come from metallic professional refrigerators.
 - b. *Field studies*
Field studies are data that are collected first hand from users. This includes the finding and insights from observations, interviews, and surveys. Visuals such as photos and videos are very helpful at this stage. At this point, potential solutions can also be drawn.
4. *Identify product opportunities*

General Observations and Interviews Tips

When making observations or interviewing, always try to collect as much information about demographic information, such as age, gender, occupation and location, as possible. This gives information about which user group the subject is a part of. Visit the user at their work, home or play. Venue visits allow direct observations of the user in their setting and is better than relying on the user to describe their setting. It is often difficult for users to articulate what is most natural to themselves. For example, how do you explain balancing on a bike.

Aim to uncover pain points. Knowing frustrations and fears often points towards a need. For example, with the point-and-shoot (as opposed to a front camera), you can't see how you look into a photo until after you've taken it.

When **observing**, find out specifically what tasks they are trying to accomplish and how so. An outsider's perspective makes it easier to uncover workarounds. You can ask questions, but keep them open ended. Do ask "Can you walk me through how you would do this?" Do not ask "What problems do you have during your task?"

When **interviewing**, prepare questions ahead of time. Suppress preconceived notions about the user and products and do not bias the discussion. Aside from questions, ask user for demonstrations. Look out for surprises, these suggest latent needs. Additionally, watch for nonverbal cues, such as nods or frowns.

In your design logbooks, practice going through the needfinding process:

1. List three combinations of user group + activities. Keep the scope appropriate.

Ans: Three combinations of user group + activities would be:

1. Video game players + playing a variety of video games
2. Seniors + medication management
3. Families that have sick family members + medication management

2. Gather data, through desk and field research, about the chosen activity.

Ans:

1. Desk Studies:
"Ontario reports 1,508 new coronavirus cases; 14 more deaths"

2. Field Studies:

Ontario

Cumulative

New

New confirmed cases by day (+1,508 today)

— Line shows 7-day average



Ontario has **2,229 confirmed cases per 100k** residents.

3. Identify needs/product opportunities

Ans:

1. Close down all non-essential areas such as malls, parks, etc.
2. Have a lockdown for 1 month to keep a close eye if the numbers reduce.
3. Also have a curfew again, to prevent number of cases from increasing.

Source