

Luke Havener, Samuel Imlig, Tyler Foglio, Ryan Wittmers and Christopher Mourich

414 N Meridian St, Newberg, OR 97132

11/24/2020

Table of Contents

Table of Contents	2
1. Introduction	4
1.1 Purpose of this document	4
1.2 Scope of this document	4
1.3 Intended Audience and Use	4
1.4 Definitions and Risk	4
1.5 Overall Description	5
2. General Description	6
2.1 Product Functions	6
2.2 Similar System Information	6
2.3 User Characteristics	6
2.4 User Problem Statement	7
2.5 User Objectives	7
2.6 General Constraints	7
3. Functional Requirements	7
3.1 System Features	7
3.2 Description	8
3.3 Criticality	9
3.5 Risks	10
3.6 Dependencies with other requirements	10
3.7 External Interface Requirements:	11
4. Interface Requirements	11
4.1 User Interfaces	11
UI.1 UI.2 UI.3	12
UI.4 UI.5 UI.6	13
UI.7 UI.8 UI.9	13
UI.10 UI.11 UI.12	14
UI.13	14
5. Other non-functional attributes	15
5.1 Security	15
5.2 Reliability	16
5.3 Maintainability	16
6. Use Cases	17
6.1 Actors:	17

9. Support Plan					
8. Testing Matrix	22				
Milestone 5: Release To Market	21				
Milestone 4: Test & Support Plans	21				
Milestone 3: Design & Architecture	20				
Milestone 2: Requirements	20				
Milestone 1: Project Planning	20				
7. Preliminary Schedule	20				
6.5 Assumptions and Dependencies	20				
6.4 Explanation for Chart:	19				
6.3 Actor Relations	19				
6.2 Use Cases:	18				

1. Introduction

1.1 Purpose

Pandemic 2020s purpose is to reduce the spread of COVID-19 by developing an early warning system through the use of contact tracing, daily checkups and regulation notifications.

1.2 Scope

Contact tracing will be implemented through the use of location based services to notify the user if they have been within 20 feet of a confirmed COVID-19 user or within 20 feet of a Symptomatic User. Daily check ups will occur each day and will ask the user if they have been confirmed with COVID-19 or if they are symptomatic. Regulation notifications are sent whenever a user changes states and the user has the ability to view the COVID-19 regulations of that state, any Pandemic 2020 notifications they have received, retake their medical check up, change their account settings or contact us via social media

1.3 Intended Audience and Use

This app is intended to be used by anyone who wants an added cushion between themselves and the transmission of COVID-19. In order to provide this cushion, each daily checkup should be answered honestly.

1.4 Definitions and Risk

Contact tracing: the process used to identify those who come into contact with people who have tested positive for a contagious disease, such as COVID-19.

Privacy Risks: Pandemic 2020 could reveal symptomatic individuals, and their location

history. To ensure our user's information stays private, our app won't share, sell or otherwise expose your information and it will keep our users' medical responses confidential. Users can delete their data at any time however, they will be notified that it will take a full 3 week cycle for the data to get deleted as it will not affect contact tracing from there.

1.5 Overall Description

Pandemic 2020 will be a cellular application that utilizes the smartphone and the phone's ability to locate a user's position. This will be implemented through the use of GPS' longitude, latitude and altitude. The aim is to use the location data as reference to other users when one is confirmed with COVID-19 so that they might take the precautions necessary to keep our communities safe, such as getting tested for COVID-19 or quarantining. To discover whether a user has tested positive with COVID-19, daily medical screenings will be administered. These screenings will ask if the user has tested positive with COVID-19, but they will also inquire about any COVID-19 related symptoms. If the user is symptomatic, the server pulls the location history of that user and compares it with other users in similar areas during the past 3 weeks. If any users were near this user during the aforementioned time frame, then a notification will be sent out to the healthy individual warning them about their possible condition. In addition to its primary function, Pandemic 2020 also supports a database of all state, federal and country rules and regulations to ensure that users are abiding by the recommended guidelines. If a user travels to a different state or country than the current state or country, then a notification will be sent of that area's basic regulations on COVID-19, along with additional reading if they are inclined to read more. Furthermore, Pandemic 2020 provides its users with the ability to retake their medical checkup in the case that they are now suffering from symptoms of COVID-19 or view a log of any Pandemic 2020 notifications sent to the User. One primary reason this log has been implemented is in the case that the user has been in contact with multiple Symptomatic or COVID-19 confirmed individuals, thus raising the necessity for testing exponentially. Additionally, this

implementation of a log helps to curb user error, such as a user accidentally swiping away the notification before they had the opportunity to read it. The last implementations of Pandemic 2020 exist to assist in our user's quality of life, such as customizing or changing account settings or contacting us directly through several social media platforms.

2. General Description

2.1 Product Functions

A COVID-19 app to be used for contact tracing and regulation notifications. This app will allow users to view the current county/state/federal regulations for the location of the user. It will also send updated regulation notifications when a user has moved into a location which has different regulations. The app also tracks a running 3-week window of historical location data and notifies the user if any other user (once diagnosed with COVID-19) has come within various distances (i.e. 10', 20', 30') during the past 3 weeks.

2.2 Similar System Information

Describes the relationship of this product with any other products. Specifies if this product is intended to be stand-alone, or else used as a component of a larger product. If the latter, this section discusses the relationship of this product to the larger product.

2.3 User Characteristics

In order to use this application, a user doesn't need any previous experience or knowledge with other related software products. Since our interface is easy to use and intuitive, it will assist our users through the setting up process and guide them to the medical check up.

2.4 User Problem Statement

Given the year's recent pandemic, people are wanting safety when they go into public space to properly quarantine themselves in the event that they do catch an illness. Pandemic 2020 offers that solution by providing the tools for users to maintain safety with other people trapped in the same boat as them.

2.5 User Objectives

The app will send a notification if another that was within 20 feet during the past three months is exhibiting COVID-19 related symptoms or is confirmed as having COVID-19. Additionally, the app will send a notification containing the current State/Country Regulations if a user enters a new State or Country.

2.6 General Constraints

GC.1: HIPAA, requires protection and privacy of the user's medical information.

3. Functional Requirements

3.1 System Features

- F.1.1: Our app must be able to track a 3-week running window of historical data
- F.1.2: Our app must be able to notify a user if another user diagnosed with COVID-19 has come within 20 feet during the past three weeks.
- F.1.3: Our app must be able to notify a user if another user with COVID-19 related symptoms has come within 20 feet during the past three weeks.
- F.1.4: Our app must be able to display the current State/Country Regulations of the User's location

- F.1.5: Our app must be server based, It must have a database to store the amount of data needed for a global application with communication with frequent communication to its servers.
- F.1.6: Our app will be funded through the use of ads and sponsors

3.2 Description

- F.1.1: The three-week window is to analyze the movement behavior of symptomatic individuals to get a grasp on how individuals are interacting with each other. Locations are tracked in order to fully reference the other's position and determine if they are within the 20 feet of the symptomatic in order to send a notification to others, warning of the potential illness they have.
- F.1.2: The app will notify users if the user has come into 20 feet with a now
 COVID-19 diagnosed individual within the last 3 weeks. It will send a notification to the user's phone and also store the amount of notifications in the phone in a collection of all notifications they have accumulated.
- F.1.3: The app will notify users if the user has come into 20 feet with a, now symptomatic individual that has not been diagnosed with COVID-19 within the last 3 weeks. It will send a notification to the user's phone and also store the amount of notifications in the phone in a collection of all notifications they have accumulated. We separated the COVID-19 diagnosed and symptomatic notifications because a cough does not clearly define that the user has COVID-19 however it does display that the user may have a cold or another illness that the user should be worried about.
- F.1.4: The app will display the list of health guidelines, restrictions and requirements for the user's state and country and provide links to the formal sites for further user exploration if inclined. Notifications will be presented to the user whenever they cross state or country lines and update the user on new or changed notifications that differ from the previous state or country they were in.

- F.1.5: On the technical and hardware side of operations, the application must utilize a full sized server and database to compute relationships between three dimensional GPS coordinates and be able to store 3 weeks worth of data points taken at the 5 minute intervals. We chose this over a bluetooth approach because it made more sense to allow a more powerful computer handle the computations, especially for more dense regions where users interact with thousands of, if not tens of thousands of individuals in any given day, we felt that the smartphone could not handle this kind of computational power.
- F.1.6: Instead of locking our software behind a paywall, we have decided to use ads and sponsors so that our app can be used by all people. Banner ads will be displayed on various pages, and allow other businesses to display ads on the page.

3.3 Criticality

- F.1.1:High priority: It is of high importance that the contact tracing aspect of the application, the core component of sending notifications to others, is properly working and functionally correct as this is what most of the rest of the application is built off of.
- F.1.2:High priority: The core concept of the application is that users are sent a notification when they have come into contact with a COVID-19 diagnosed individual. It is essential that this F.1 and F.5 are prioritized to the highest extent since that is the core of the application and separates us from other apps.
- F.1.3:Medium priority: It is important that we extend our scope to all diseases but it is not the essential aspect of the app, if need be it could be extended into a later release.
- F.1.4: Medium priority: While having the restrictions listed onto one app, it does not directly correlate with keeping eyes on COVID-19.
- F.1.5: High priority: It is the core computational role in the application and allows
 for our application to be used on a world wide scale, this is the backbone of the
 comparisons used and sends out the notifications for F.2.

• F:1.6: High priority: As our financial support system it is imperative that we get this down to financially support our operations.

3.5 Risks

- F.1.1: In order to track our user's location, the user needs to enable location based services and also have access to Wi-Fi or data networks. Because of this, Pandemic 2020 may be less effective in rural areas.
- F.1.2: Just like F.1, if the user has inconsistent connection to a network, a user's location based services could be unable to perform its function. Our method of confirming whether a user is COVID-19 diagnosed is user dependent, meaning that a user can maliciously confirm their fake illness to scare or intimidate others they knowingly have come into contact with.
- F.1.3: See F.2.
- F.1.4: A potential risk can ensue if all the websites used to redirect our users are offline. Requires us to have a UI and maintain that extra expense.
- F.1.5: Heavy technical requirements that are expensive and require massive data transfers to operate at full capacity and a full user base. It requires more maintenance than having individuals use their phones and overall is the primary budget in keeping the servers and databases operational.
- F.1.6: A potential risk with this business model is that our ads or sponsors don't make enough revenue in order to sustain our application. However, we think this is unlikely, as our app will be highly sought after for the unique protection and security it can provide.

3.6 Dependencies with other requirements

- F.1.2: Requires F.1 and F.5
- F.1.3: Requires F.1 and F.5

3.7 External Interface Requirements:

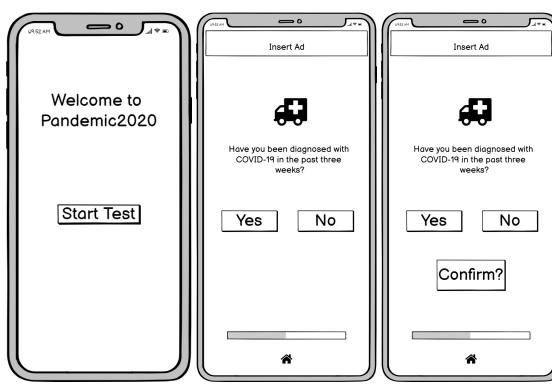
F.7.1 Users must have a modern phone with access to satellites. Our app must be able to use three-dimensional GPS data

4. Interface Requirements

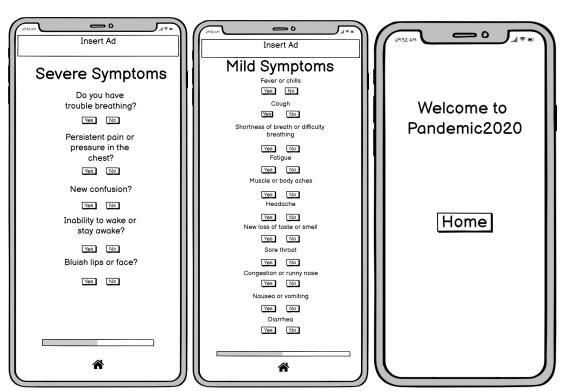
4.1 User Interfaces

Pandemic 2020s user interface includes a GUI that prompts a daily health check up that asks if the user has any mild or severe symptoms of COVID-19. Upon completion of the check up, the user will be taken to the home page, where they can view their state's regulation, any Pandemic 2020 notifications they have received, retake their medical check up, change their account settings or contact us via social media.

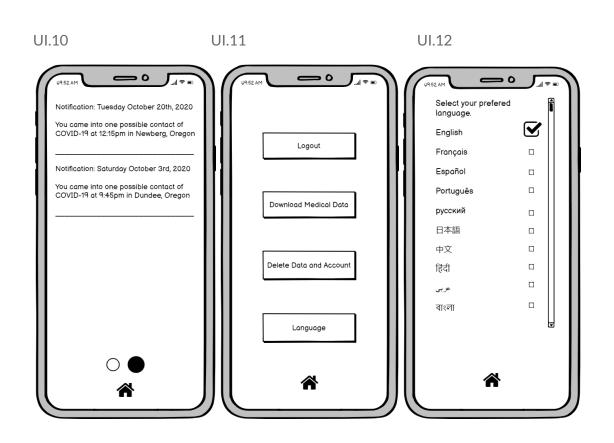
UI.1 UI.2 UI.3



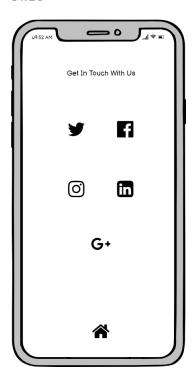
UI.4 UI.5 UI.6







UI.13



UI 1: The screen that greets the user if they have not completed the contact tracing test for the day (12am - 11:59pm).

UI 2 - 5: The screen that takes the user through the contact tracing test to ascertain if they have COVID or another common infectious disease.

UI 6: This screen is about getting the user into the main home screen and operating other functionality from there.

UI 7: This UI screen is the central hub for the app after the medical test has been taken, and goes to UI 8 - 13 for additional functionality. The home button at the bottom of the page is how to get back to the home screen from other UI screens.

UI 8: Displays the state / country regulation for the one the user resides in.

UI 9: Depicts a graph demonstrating the amount of positive COVID-19 users the User has been in contact with in the last three weeks.

UI 10: Illustrates possible notifications Pandemic 2020 will send based upon close proximity with either COVID-19 Confirmed Individuals and Symptomatic Individuals.

UI 11: This UI is the menu for user account settings and information where they can logout, download data, delete data and account and select a language.

UI 12: This UI screen demonstrates the language preference screen

UI 13: This UI contains links to our various social media pages and platforms.

5. Other non-functional attributes

5.1 Security

Privacy is a key concern as we need to ensure absolute security that medical and location information is kept out of the public eye and is only between the server and the user.

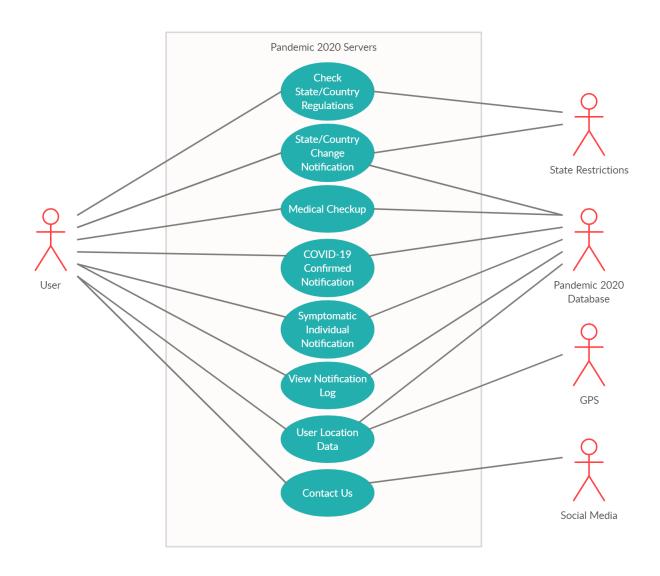
5.2 Reliability

Our app needs to have exceptional speed in delivering notifications regarding their interactions with COVID-19 confirmed or Symptomatic users.

5.3 Maintainability

Our app needs to be easily maintained and updated in order to keep up with rapidly changing pandemic landscape. We will ensure this by including a strict style guide that all employees will adhere to including coding and file naming conventions.

6. Use Cases



6.1 Actors:

User: Users using Pandemic2020

State restrictions: The restrictions regarding COVID-19 unique to each state

Pandemic 2020 Database: Stores users' locations to cross-reference after a user has been

confirmed with COVID-19 or is Symptomatic

GPS: Tracks users' longitude, latitude and altitude via satellite

6.2 Use Cases:

UC.1 Check State Regulations: Upon request by the User, provides the current COVID-19 regulations for the state or country the user is currently

UC.2 Medical Checkup: A daily medical checkup will be given to our users asking them if they have been confirmed with COVID-19 or if they have any COVID-19 related symptoms

UC.3 State/Country Change Notification: Upon the User entering a new State or Country, a notification will be sent telling the User the unique COVID-19 regulations for that state or country

UC.4 COVID-19 Confirmed Notification: After the Pandemic 2020 Database has received a positive COVID-19 user on the Medical Checkup, it will cross-reference that user's location with other user's locations to see if they have crossed paths in the past three weeks. If the positive COVID-19 user has crossed paths with another user in that time, a COVID-19 Confirmed Notification will be sent to the non-COVID-19 confirmed user warning them that they have been potentially exposed.

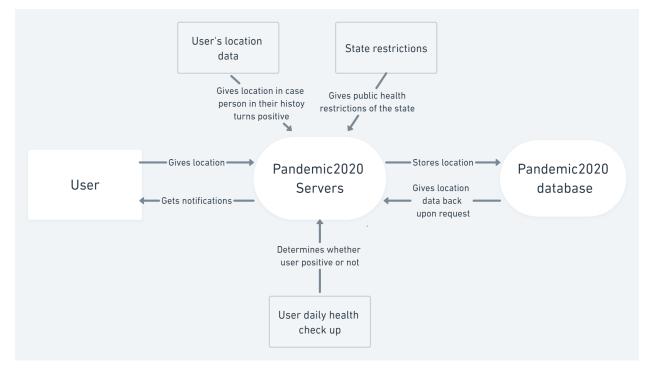
UC.5 Symptomatic Individual Notification: After the Pandemic 2020 Database has received a symptomatic user on the Medical Checkup, it will cross-reference that user's location with other user's locations to see if they have crossed paths in the past three weeks. If the symptomatic user has crossed paths with another user in that time, a Symptomatic Individual Notification will be sent to the non-symptomatic user warning them that they have been potentially exposed to COVID-19.

UC.6 View Notification Log: Upon request by the User, provides a log of all the notifications the User has received from the Pandemic 2020 app.

UC.7 User Location Data: Through the use of GPS, tracks the User's location and stores it in the Pandemic 2020 Database.

UC.8 Contact Us: Upon the User's request, provides a variety of links to our different social media pages.

6.3 Actor Relations



6.4 Explanation for Chart:

The users of Pandemic 2020 will be sending their location data hourly to our servers, after which the Pandemic2020 servers will be digesting the data from satellites to determine the state where the user is currently residing, so that proper state or country regulations can be provided. Once the server has digested the location data, it will be sent to our database where they will be securely contained for the privacy of the user. When the user answers their daily health check-up, one of three results occur. If the results suggest that the user may have COVID-19, the server will pull the user's data and compare it with the location data of other users to see if they were ever within close proximity. If the user is confirmed to have COVID-19, then alert notifications will be sent out to those they came in contact with. Finally, if the user is not positive or symptomatic, nothing will occur.

6.5 Assumptions and Dependencies

Pandemic 2020 is dependent on a user having access to a phone, operating location based services and access to either Wi-Fi or satellite networks.

7. Preliminary Schedule

Milestone 1: Project Planning

In our first Milestone, we developed a project plan containing a list of all the separate milestones we wanted to accomplish and the dates in which they needed to be met.

Given the list of project milestones and due dates, develop and present a project plan (i.e., Gantt chart). Ensure that your plan is tailored to your team's project and unique requirements. Include actual calendar dates indicating when your team will meet to work on the various deliverables for each milestone. Include as much detail as you can at this point in the project: time for defining requirements, meeting with the client, getting the team up to speed on Git version control and related <u>tools</u>, etc. You will continue to refine your plan as the project progresses.

Milestone 2: Requirements

In our second Milestone, we implemented the various functional and nonfunctional requirements in our project through the use of a requirements specification document.

Milestone 3: Design & Architecture

In our third Milestone, we designed and presented the overall design and architecture of our app using the following requirements:

Expand your requirements specification document to include at least one significant design artifact from each team member. Include a <u>use-case diagram</u> covering key functionality for one or more actors (i.e., users) of your system. For each use case diagram, complete the "back of the notecard" with text describing the use case. Ensure your supporting text includes the relevant actor as part of the header.

Include supporting <u>low-fidelity user interface wireframes</u> for key functionality or features, with supporting text explaining aspects of the design as needed.

Additionally, include discussion of the overall architecture of the project (e.g., number of concurrent users, volume of data being handled by the system, client- or server-based operations, security/compliance concerns, multiple language support, etc).

Milestone 4: Test & Support Plans

In our fourth Milestone, we constructed Testing and Support plans using the following specs:

Using the design and architecture artifacts, along with everything else in your requirements specification document, generate a list of unit tests, integration tests, and user acceptance tests Submit an updated PDF version of your requirements specification document.

Milestone 5: Release To Market

In our final Milestone, we are presenting the entire plan for our app using these specs:

Present your final requirements specification document. This final version should improve and expand on each of the previous milestones, including:

- Completely specified requirements
- Full coverage of actors and use cases using use case diagrams
- Expanded coverage of the user interface with low-fidelity wireframes
- Complete referencing of related sections and figures from relevant portions of the document

8. Testing Matrix

Test No.	Depends on	Actor	Use Case	Ref.	Preconditions	Test Steps for Actor	Post conditions
T.1	Sign up /Setup						
T.1. 1	(none)	User	Verify User can access	(none)	1: The User has internet access	Launch https://www.P andemic2020.c om	1: Initial sign up page should appear with option to sign up or sign in
T.1. 2	T.1.1	User	Forgot password	(none)	1: The User has cellular data or internet	Launch https://www.P andemic2020-	1: Email authentication should appear

T.1.	T.1.1	User	Sign-up	(none)	connection. 2: User has an account. 1: The User has	password-rese t.com	2: Code should be provided 3: Password can be reset 1: User is able to
3			0	(,	cellular data or internet connection.	https://www.P andemic2020- sign-up.com	create a username and password
T.1. 4	T.1.1	User	Sign-in	(none)	1: The User has cellular data or internet connection. 2: User has an account.	Launch https://www.P andemic2020.c om	1: User is able to access with their username and password 2: If password is incorrect, provides the option of forgot password
T.2	Health Check						
T.2. 1	T.1.4	User	Button "Start Test" functions	UI.1 UC.2	1: The User has cellular data or internet connection. 2: User has an account.	User hits the "Start Test" button and it goes to the first page of the health Check-up	Takes User to the first health checker page

		1	1	l			
T.2.	T.1.4	User	Select	UI.2 -	1: The User has	User selects	1: Stores User
2			buttons	4	cellular data or	NO for all	information as
			(NO) for	UC.2	internet	buttons	healthy
			health		connection.		2: No notification
			check-up		2: User has an		sent
			s (ALL)		account.		
			work				
T.2.	T.1.4	User	Select	UI.2 -	1: The User has	User selects	1: Stores User
3			buttons	4	cellular data or	YES for all	information as
			(YES) for	UC.2	internet	buttons	COVID-19
			health	UC.4	connection.		symptomatic
			check-up		2: User has an		2: Notifications
			s		account.		sent to people
			(ALL)				that made close
			work				contact
T.2.	T.1.4	User	Select	UI.2 -	1: The User has	User selects	1: Stores User
4			Buttons	4	cellular data or	YES to all	information as
			(Severe,	UC.2	internet	Severe	COVID-19
			YES) and	UC.4	connection.	symptoms and	symptomatic
			select		2: User has an	NO to all mild	2: Notifications
			(Mild		account.	symptoms	sent to people
			symptom				that made close
			1 ′ '				
			s NO)				contact
T.2.	T.1.4	User		UI.2 -	1: The User has	User selects	contact 1: Stores User
T.2. 5	T.1.4	User	s NO)	UI.2 -	1: The User has cellular data or	User selects NO to all	
	T.1.4	User	s NO) Select				1: Stores User
	T.1.4	User	s NO) Select Buttons	4	cellular data or	NO to all	1: Stores User information as

			select (Mild symptom s YES)		2: User has an account.	YES to all mild symptoms	sent to people that made close contact
T.2.	T.1.4	User	Select all but one questions and try to confirm	UI.2 -4 UC.2	1: The User has cellular data or internet connection. 2: User has an account. 3: Test questions are answered except for one or more of them	User answers all but one and tries to confirm test	1: Gives an error message that the user needs to fill out the rest of the questions before proceeding.
T.2.	T.1.4	User	Select "Confirm"	UI.1 UC.2	1: The User has cellular data or internet connection. 2: User has an account. 3: User has filled out all the test questions	User selects CONFIRM	User submits the test to the Pandemic 2020 servers and Information is stored
T.2. 8	T.1.4	User	Select "Cancel"	UI.1 UC.2	1: The User has cellular data or	User selects CANCEL.	UI takes the user back to the start

					internet connection. 2: User has an account. 3: User has filled out all of the test questions		of the test with the same answers filled in the same way to change any answers.
T.3	Main Menu UI test						
T.3. 1	T.1.4	User	Select "Home"	All UI with Home Butto n	1: The User has cellular data or internet connection. 2: User has an account.	User selects home button	Takes user to home screen
T.3. 2	T.1.4	User	Select "State and Regulatio ns"	UI.7, UI.8 UC.1	1: The User has cellular data or internet connection. 2: User has an account. 3: On the home screen	User selects state and regulations button	Takes User to State and Regulations page
T.3.	T.1.4	User	Select "Covid-1	UI.7, UI.9	1: The User has cellular data or	User selects Covid-19	Takes User to Covid-19 positive

			9 positive encounte rs/Notific ations"		internet connection. 2: User has an account. 3: On the home screen	positive encounters button	encounters
T.3.	T.1.4	User	Select "Health Checker"	UI.7, UI.1 UC.2	1: The User has cellular data or internet connection. 2: User has an account. 3: On the home screen	User selects health checker button	Takes user to health checker
T.3. 5	T.1.4	User	Select "Account Settings"	UI.7, UI.11	1: The User has cellular data or internet connection. 2: User has an account. 3: On the home screen	User selects account settings button	Takes user to account settings
T.3.	T.1.4	User	Select "Contact Us"	UI.7, UI.13	1: The User has cellular data or internet connection. 2: On the home	User selects contact us button	Takes user to Contact us page

					screen		
T.4	Covid-19 positive encounters UI / Notification s						
T.4. 1	T.3.3	User	Graph reflects Covid encounte rs	UI.9 UC.4 UC.6	1: The User has cellular data or internet connection. 2: User has an account. 3: User is on Covid-19 positive encounters UI	User clicked on Positive Covid encounters button and this appears	Phone outputs correct information regarding positive encounters into a graph
T4.2	T.3.3	User	Tells what number of Covid-19 encounte rs	UI.9 UC.4 UC.6	1: The User has cellular data or internet connection. 2: User has an account. 3: User is on Covid-19 positive encounters UI	User clicked on Positive Covid encounters button and this appears	Phone outputs correct information regarding positive encounters into a sum total

T.4.	T.3.3	User	Swipe	UI.9 -	1: The User has	User swipes	Notification Logs
3	1.0.0		Functions	10	cellular data or	LEFT to go to	are visible and
			Turictions	UC.4	internet		accurate reflect
				UC.6		the right page	
				00.6	connection.	and it brings	user interaction
					2: User has an	them to the	
					account.	notification	
					3: User is on	logs	
					Covid-19		
					positive		
					encounters UI		
T.4.	T.3.3	User	Notificati	UI.10	1: The User has	User interacts	Phone outputs a
4			ons are	UC.4	cellular data or	with people	collection of each
			logged	UC.6	internet	and the	time the user
					connection.	response is	interacted with
					2: User has an	recorded when	someone positive
					account.	they are	
					3: User is on	positive with	
					Covid-19	Covid-19	
					positive		
					encounters UI		
T.4.	T.3.3	Pand	Correct	F.4	1: The User has	The User	A State/Country
5		emic	State/Co	UC.1	cellular data or	changes	Change
		2020	untry	UC.3	internet	State/Country	notification is
		Data	Change	UC.6	connection.		displayed
		base	Notificati		2: User has an		
			on		account		
					3: Location		
					Services must		

					be on		
T4.6	T.3.3	Pand emic 2020 Data base	Timely State/Co untry Change Notificati on	F.4 UC.3 UC.6	1: The User has cellular data or internet connection. 2: User has an account 3: Location Services must be on	The User changes location to a different State/Country	A State/Country Change notification is displayed with minimal delay
T.4. 7	T.3.3	Pand emic 2020 Data base	Correct Covid-19 Confirme d Notificati on	F.2 UC.4 UC.6	1: The User has cellular data or internet connection. 2: User has an account 3: Location Services must be on	Another User is flagged as having Covid-19	A Covid-19 Confirmed notification is displayed to the correct User
T.4. 8	T.3.3	Pand emic 2020 Data base	Correct Symptom atic Individual Notificati on	F.3 UC.5 UC.6	1: The User has cellular data or internet connection. 2: User has an account 3: Location Services must	Another User is flagged as a Symptomatic Individual	A Symptomatic Individual notification is displayed to the correct User

					be on		
T.4.	T.3.3	Pand emic 2020 Data base	Timely Symptom atic Individual Notificati on	F.3 UC.5 UC.6	1: The User has cellular data or internet connection. 2: User has an account 3: Location Services must be on	Another User is flagged as a Symptomatic Individual	A Symptomatic Individual notification is displayed with minimal delay
T.4. 10	T.3.3	Pand emic 2020 Data base	Timely COVID-1 9 Confirme d Notificati on	F.2: UC.4 UC.6	1: The User has cellular data or internet connection. 2: User has an account 3: Location Services must be on	Another User is flagged as having Covid-19	A Covid-19 Confirmed notification is displayed with minimal delay
T.5	Account Settings UI						
T.5.	T.3.5	User	Select "Logout" button	UI.11	1: The User has cellular data or internet connection. 2: User has an account.	User selects Logout button	Sends user back to the Login screen

					3: User is on Account Settings UI		
T.5. 2	T.3.5	User	Select "Downloa d Medical Data"	UI.11	1: The User has cellular data or internet connection. 2: User has an account. 3: User is on Account Settings UI	User selects Download Medical Data	Downloads a copy of data collected over the last 3 weeks
T.5.	T.3.5	User	Select "Delete Account and Medical	UI.11	1: The User has cellular data or internet connection. 2: User has an account. 3: User is on Account Settings UI 4: User must re-enter their password	User selects the Delete Account and Medical	Deletes the Account and the data and sends user back to login screen
T.5. 4	T.3.5	User	Select "Languag e" button	UI.11 - 12	1: The User has cellular data or internet	User selects the Language button	Brings user to Language select screen

T.5.	T.3.5	User	Selects a Language	UI.12	connection. 2: User has an account. 3: User is on Account Settings UI 1: The User has cellular data or internet connection. 2: User has an account. 3: User is on Account Settings UI	User selects a language	Changes the language across all UI
T.5.	T.3.5	Pand emic 2020 Serve rs	Language reflects on the whole UI	AllUl	1: The User has cellular data or internet connection. 2: User has an account. 3: User is on Account Settings UI	User selects language	Language is changed across all UI and is accurate
T.6	Contact Us UI						
T.6.	T.3.6	User	Press	UI.13	1.User has	Social media	Twitter Should

1			twitter button	UC.8	internet connection		appear
T.6. 2	T.3.6	User	Press Facebook button	UI.13 UC.8	1.User has internet connection	Social media	Facebook should appear
T.6.	T.3.6	User	Press Instagra m button	UI.13 UC.8	1. User has internet connection	Social media	Instagram should appear
T.6. 4	T.3.6	User	Press linked in button	UI.13 UC.8	1. User has internet connection	Social media	LinkedIn should appear
T.6.	T.3.6	User	Press google plus button	UI.13 UC.8	1. User has internet connection	Social media	Google plus should appear
T.7	State / Country Regulations						
T.7. 1	T.3.2	User	Valid link for State/Co untry Regulatio ns	F.4 UC.1 UI.8	1: The user has internet access	Launch the State or Country website	1: The State or Country website the user is currently, in should appear
T.8	User						

	Location Data						
T.8.	T.1.3	User	User Location Data must be turned on	F.1 UC.7	1: The User possesses a phone with Location Data Services	Turn on the Location Data	The User's location will be tracked
T.8. 2	T.1.3	User	User must allow for us to store their Location Data	F.1 UC.7	1: The User possesses a phone with Location Data. 2: The User's Location Data is turned on.	The User accepts the User Agreement Form	The User's Location Data is stored
T.8. 3	T.1.3	Pand emic 2020 Data base	User Location Data is stored correctly	F.1 UC.7	1: The User completes the User Agreement Form	The User's Location Data is provided	The User's Location Data is stored correctly
T.8.	T.1.3	Pand emic 2020 Data base	User Location Data is private	F.1 UC.7	1: The User completes the User Agreement Form	The User's Location Data is provided	The User's Location Data is stored securely
T.9	Comparing						

	GPS						
1.9.	T.1.3	Pand emic 2020 Data base	Correct comparis on of individual s	F.1 UC.7	1:The User has cellular data or internet connection. 2: User has an account	A Covid-19 Confirmed or Symptomatic Individual Medical Check is received	GPS compares the locations of Pandemic 2020 Users
T.10	Bluetooth Comparison						
T.10 .1	T.1.3	User	Within Bluetoot h range of another Pandemic 2020 user	F.1 UC.7	1. User does not have cellular data or internet connection 2. Both users have Bluetooth services enabled 3. Both Users have accounts	User without service is within Bluetooth range of another user	Personal device must store both users
T.10 .2		User	Gains access to cellular data/ internet	F.1 UC.7	1. User was in contact with another User while no cellular data or internet	User gains internet or cellular Data	Cellular device sends data to server

	available
--	-----------

Glossary:

F	Functionality
UC	Use Cases
UI	User Interfaces

9. Support Plan

- Our plan for continued support is to use our social media platforms for people who
 want to put out general complaints, and if they need critical support we are going
 to direct those to our support website where we will handle them there either by a
 text chat or a phone call.
- 2. Being a larger application, our platform will be putting out bi-weekly bug fixes that do not affect the future developments of adding new functionality to the application.