

## **1. a) The Problem**

Canada's universal, publicly funded health-care system also informally known as Medicare, serves to provide equitable access to physicians and hospital services throughout the country. While many Canadians can rely on and take pride in Medicare, Canada's Medicare is not efficient, and causes many Canadians to wait hour long line ups before they receive very brief medical attention. For CSCC10, our group aims to provide a technological solution to this problem by designing a web application that allows patients to see wait times for nearby clinics/hospitals which allows them to make a choice on which clinic/hospital to go to that would be most time efficient. This assignment will focus on my version of a prototype of this web application, and highlight changes I have made based on the results of my user testing.

## **1. b) Sections Covered**

For my prototype, I have focused on prototyping the tasks of:

- Users entering their starting point location and method of travel
- The results page of clinics sorted by a default filter, or, a filter that the user may choose
- The directions to a clinic/hospital that the user chooses from the results page

## **2. Motivation/Vision**

My proposed solution to solve the issue of long wait times in Canadian health care systems is to redirect incoming patients to the clinics/hospitals with more unoccupied space and/or higher number of available physicians. This will help stop overwhelming the already full clinics/hospitals and save the patients' time.

My prototype aims to be a quick and easy to use application. Quick, since those who will be using it could be in a rush to get to a clinic/hospital, and easy, because the target audience for this application is broad, including all Canadians who are able to get to a clinic/hospital. I have focused on these problems because I envision the design of a quick and easy to use application will keep the users engaged and benefit them by having an efficient design, and for the purposes of an app with this concept, I believe it is most important to focus on a quick and easy design theme.

For my prototype, I have also focused on making the application with people's different interests in mind. I have the results page of the clinics/hospital sorted in default by the sum of the total commute + wait times for that destination, because this gives the user an estimate of when they will be done their appointment given their selected departure time. However, I understand that some users may rather

want to commute less and wait in a clinic/hospital more, so I have added an option for users to sort the results page by commute + wait times, commute times, wait times, or by kilometres travelled.

### 3. General Findings from User Testing

In general, I learnt that it is inclusive thinking to make everything that is clickable look clickable. This may be of particular help to seniors, children, and visually impaired individuals who would not be otherwise able to tell that an icon can be clicked. Furthermore, it is important to label all icons to ensure it is understood the same way universally. I had learnt this when my 'walking man' icon was mistaken to be a 'jogging/running man' icon, and had confused the user. This confusion could have led to an incorrect use of the app, and would have made a very unhappy user!

#### 4. a) Updated Prototype based on Observations

Before:

After:

www.ontime.ca				
Back	Car	Bus	Bike	Foot
Search [Q] = Filter				
Clinic 1 123 Clinic Rd.	60min commute + wait	30min wait	30min commute	22 km
Clinic 2 123 Clinic Rd.	40min commute + wait	60min wait	30min commute	22 km
Clinic 3 123 Clinic Rd.	10min commute + wait	5min wait	30min commute	22 km
Clinic 4 123 Clinic Rd.	30min commute + wait	60min wait	30min commute	22 km
Clinic 5 123 Clinic Rd.	40min commute + wait	40min wait	30min commute	22 km

www.ontime.ca				
Back	Car	Bus	Bike	Foot
Search [Q] = Sort				
Clinic 1 100 Clinic St. 80km away Go to	2hr 30mins commute + wait	60min wait	30min commute	
Clinic Cool 22 Jump St. 900km away Go to	2hr 40mins commute + wait	40min wait	2hr commute	
GWS 72 Awesome 10km away Go to	2hr 55 mins commute + wait	2hr 45mins wait	10mins commute	
<div>o</div> <div>o</div> <div>o</div>				

I updated this page to say 'Sort' instead of 'Filter' because prototype users have pointed out that 'Filter' means to 'filter out', and they had held back from clicking on the 'Filter' button because they thought it would filter out the search results on this page, which is not what they wanted. Therefore, since the users did not understand the label, I changed its label to make its function accurate and clear.

#### 4. b) Updated Prototype based on Observations

Before:

www.ontime.ca

↑ BACK

Text Directions  
Enter a valid 10-digit Canadian phone # to receive a text of the directions

+1 \_ \_ \_ \_ \_

Text

A text has been sent.

After:

www.ontime.ca

↑ BACK

Text Directions  
Enter a 10-digit valid Canadian phone # to receive a text of the directions to your destination.  
\*Standard texting rates will apply.

+1 \_ \_ \_ \_ \_

TEXT

www.ontime.ca

↑ BACK

Text Directions  
Enter a 10-digit valid Canadian phone # to receive a text of the directions to your destination.  
\*Standard texting rates will apply.

+1 4 1 6 0 0 0 9 8 0 1

Text has been sent

I updated the previous prototype's page to be two separate pages on the latest prototype version. I observed users getting confused seeing the 'A text has been sent' line and ask why the text had been sent before they entered their phone number. Hence, I created a page without this line and a page with this line to clearly show that such a line would pop up based on whether the text has been sent to the phone number that the user entered. This makes it clear to see that if the phone number the user entered was invalid, a 'Text has failed to send' line would pop up instead.

## 5. a) Updated Prototype based on Design

Before:



After:



Labels were changed from 'A' and 'B' to 'Starting Point' and 'Destination' to be less ambiguous to users. There is also a tail line to show the progress the user has made to the destination, which emphasizes the change of making the two points less ambiguous. On a side note, I removed the icons in the latest prototype version because I realized that changing the icon mid trip would give a different commute calculation to the destination. This will change the total time it will take for the user to have finished receiving medical attention. Therefore, to encourage users to see the updated results page based on their new method of commute, I removed the icons

which forces users to go on 'Back' to change their commute method, which will give them a new results page based on their update.

## 5. b) Updated Prototype based on Design

Before:

www.onTime.ca  
↑ Back

Rate

Please rate the wait time accuracy.  
♡♡♡♡♡

Please rate the commute accuracy.  
♡♡♡♡♡

Please rate your experience using this app.  
♡♡♡♡♡

Please write any concerns below  
Start typing...

Submit

After:

www.onTime.ca  
↑ Back

Thank you for using our app, OnTime! We hope you benefitted from our application and hope you use it again. Please feel free to fill out an optional, confidential survey below.

Optional Form

Please rate the accuracy of your wait times.  
♡♡♡♡♡

Please rate the accuracy of your commute time.  
♡♡♡♡♡

Please rate your experience using this app.  
♡♡♡♡♡

Please share any concern you have with using this app below.  
Start writing here...

Submit

This page is intended to pop up after the user has finished their medical appointment. During user testing, many students have pointed out that surveys should be optional and should also indicate that it is a confidential survey. The new updated prototype does just this and solves the problem of forcing in unwanted surveys to users!

## 6. Student Activity Details Table

<u>Date</u>	<u>Time</u>	<u>Student 1</u>	<u>Student 2</u>	<u>Student 3</u>	<u>TA</u>
<u>Tuesday,</u> <u>June 16</u> <u>2020</u>	<u>7:13PM EDT</u>	Bradley Cross-Macdi armid	Alexander Efinov		=
<u>Tuesday,</u> <u>June 16</u> <u>2020</u>	<u>7:30PM EDT</u>	Boni Xie Zhang	Tony Attala		=
<u>Tuesday,</u> <u>June 16</u> <u>2020</u>	<u>8:05PM EDT</u>	Mohammed Abdullah Khan	Wenyun Liu		
<u>Thursday,</u> <u>June 18</u> <u>2020</u>	<u>7:38PM EDT</u>	Yuming Lu	Daniella Venturo		Sho

www.ontime.ca

ONTIME  
NOT EARLIER, NOR LATER

FIND CLINICS NEAR YOU

FIND HOSPITALS NEAR YOU

www.ontime.ca

Starting Point

12 Example Street

☐ Use current location

Departure Time

5:40PM ▼

Method of Commute

☒ Car
 ☐ Bus
 ☐ Bicycle
 ☐ Walk
 ☐ UBER

Destination

☒ Clinic
 ☐ Hospital

SEARCH

www.ontime.ca

⬅️ Back
 ☒ Car
 ☐ Bus
 ☐ Bicycle
 ☐ Walk
 ☐ UBER
 Search...
 Sort

Clinic 1 100 Clinic St. 80km away Go to	2hr 30mins commute + wait	60min wait	30min commute
Clinic Cool 22 Jump St. 900km away Go to	2hr 40mins commute + wait	40min wait	2hr commute
GWS 72 Awesome 10km away Go to	2hr 55 mins commute + wait	2hr 45mins wait	10mins commute
○ ○ ○			

www.ontime.ca

⬅️ Back
 ☒ Car
 ☐ Bus
 ☐ Bicycle
 ☐ Walk
 ☐ UBER
 Search...
 Sort

Sort By

☐ wait times + commute
 ☐ commute times  
☐ wait times
 ☐ km travelled

SORT

Clinic 1 100 Clinic St. 80km away Go to	2hr 30mins commute + wait	60min wait	30min commute
Clinic Cool 22 Jump St. 900km away Go to	2hr 40mins commute + wait	40min wait	2hr commute
○ ○ ○			



www.ontime.ca

Back

DIRECTIONS

ESTIMATE ARRIVAL: 9:15PM

Turn right on Williams Rd.  
Travel North for 5km  
Turn left on Military Rd  
Travel West for 10km  
You have arrived.

RATE ACCURACY

TEXT DIRECTIONS

www.ontime.ca

Back

Text Directions

Enter a 10-digit valid Canadian phone # to receive a text of the directions to your destination.  
\*Standard texting rates will apply.

+1 - - - - -

TEXT

www.ontime.ca

Back

Text Directions

Enter a 10-digit valid Canadian phone # to receive a text of the directions to your destination.  
\*Standard texting rates will apply.

+1 4 1 6 0 0 0 9 8 0 1

Text has been sent

www.ontime.ca

Back

Thank you for using our app, OnTime!  
We hope you benefitted from our application and hope you use it again. Please feel free to fill out an optional, confidential survey below.

Optional Form

Please rate the accuracy of your wait times.  
♡♡♡♡♡

Please rate the accuracy of your commute time.  
♡♡♡♡♡

Please rate your experience using this app.  
♡♡♡♡♡

Please share any concern you have with using this app below.  
Start writing here...

SUBMIT