Advance Web Services

(CSCI-5709)

Assignment - 1

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A1.1. Project's Purpose, Goals, and Intended Features

Purpose:

DAL CoViD is a web application which provides information about CoViD-19 to promote awareness in Nova Scotia. The application is about showing the number of cases in Nova Scotia and how many cases are resolved. The application will display all the latest information about the Virus and the government's response on how to tackle the pandemic. The web application can be used by anyone who want information about the ongoing pandemic. Everyone has the right to information and this web application will help users to be more aware as this pandemic requires everyone to be aware and educated.

Features:

1. User will see an interactive dashboard, which has information of Covid-19 cases such as: number of cases, number of recoveries, number of deaths etc. *Reporting tool
2. The application would display the prediction of the cases by using prediction model of Visualisation. *Visualisation of data
3. A Latest update section which displays all the latest update and action taken by the government in response to the pandemic. *Data Integration and management
4. A travel section which displays information about closed border and security information. *Data Integration and management
5. There will be a "Help" section which gives information about Supports offered nearby and Financial support by govt etc. *Integrated blog and article
6. Utility section which displays information about things which a user can do during the pandemic such as Educate himself, learn new things or anything which can help the user to remain calm during the pandemic. *Promotion and marketing tool
7. Warning section: which displays the high alert regions having high possibility of cases.
8. Test: Where user can go through a series of questions to check if he should go for a covid-19 test based on his symptoms. *Search Engine Optimised Layout
9. Donation: Where people can donate to charities. *Multiple Payment options.
10. Precautions: which displays information on how to stay safe. *Content management
11. List of resources like Food banks or Free medicines, where a user can seek help if something is needed. *Marketing and awareness may include email integration with the user.
12. Check eligibility for Govt funding: a simple survey which can help users to check if they are eligible for Govt funding or not. *Usable forms with Good Error handling.

Scope and Target User:

The target users of this web application are everyone who are living in Nova Scotia or a person who seek information about Nova Scotia. The web application is restricted only for the desktop. Future scope is to update application and make it responsive for the mobile application.

A1.2. User Personas, Intended Scenarios and Use Cases

Scenario 1:

A student has lost his job due to the pandemic and is looking for the resources in Halifax which can help him maintain his financial budget basic living expenses. The student goes to the web application "Dal CoViD" and look out for the information.

User Persona:

John is a master student at Dalhousie University. He used to work at a restaurant before the pandemic and lost his job. He must manage his living expenses as he is not getting any salary.

Goal: John needs to manage his financial budget and living expenses

Task: Find information about the resources which can help John.

Use Case: Search and Find information about the financial resources.

1. John visit the Dal CoViD web application.
2. John clicks on "Help" section.
3. John checks and click for "Financial Resources".
4. John selects CERB and CESB and read more information about it.
5. John check if he is eligible for CERB/CESB and after being eligible, he clicks on Apply.
6. John gets redirected to Canada.ca website and applies to the CERB.

4a. John selects University bursaries and financial support resources.

5a. John chooses Dalhousie university and redirected to Dal.ca website.

6a. John applies to the Financial support from Dalhousie University.

Scenario 2:

A working professional has asked to work from home, and he is under quarantine at his home. He is scared as he is suffering from cough and fever and he wants to check if he should call 811 or not. He goes to the web application and check the symptoms and open the Test section to get more information.

User Persona:

Mike is a working professional in a big MNC at Halifax. He is working from home and having some cough and fever. He must check if he needs to have a Covid-19 test and how should he isolate himself.

Goal: Mike needs to check if he is supposed to go for a Test.

Task: Find information about symptoms, test, precaution, and cases in the region nearby mike.

Use Case: Search and Find information about the Cases, Precaution, Symptoms, and Test.

1. Mike visit the Dal CoViD web application.
2. He checks the number of cases in Halifax.
3. He checks and clicks on Test section.
4. He reads about precautions and symptoms for Covid-19.
5. He checks if he is eligible for the Covid-19 test and takes a small survey to determine if he should call 811.
6. He checks and confirms his symptoms and is recommended to call 811.
7. Mike calls 811 and registers for the Test and read more information on how to isolate himself.

Scenario 3:

An elderly person wants to know more about the cases in Halifax region. As he must go out and buy groceries and he is at a high risk, so he wants to check what precautions should he take to go out to be safe.

User Persona:

Tom is an elderly guy living in Halifax. He is living alone and must manage his household alone. He usually goes out to buy groceries, but due to Covid-19 he is at highest risk.

Goal: Tom wants to go for grocery shopping and be safe.

Task: Find information about safest grocery store, number of cases in nearby region and Precautions to take care of.

Use Case: Search and Find information about the nearby cases, safest grocery store, and precautions.

1. Tom visit the Dal CoViD web application.
2. He checks the number of cases in Halifax.
3. He checks and clicks latest updates section and reads about the latest information about Halifax region.
4. He reads about precautions and symptoms for Covid-19.
5. He finds the area with least number of cases and check for a grocery store there.
6. He notes down everything and plan to go for grocery shopping.

Scenario 4:

An international immigrant is working in Halifax. He gets to know about the lockdown and the on going pandemic. He is advised to go back to his home country, but he has no idea if he can book for a flight or not.

User Persona:

Ramesh is from India and working in Halifax. He is planning to go back to India during the pandemic. He wants to know about the travel restriction in Canada and information are which could help him.

Goal: Ramesh wants to travel to India.

Task: Find information about travel restrictions and number of cases in Halifax. Know more about what to do when you travel outside Canada.

Use Case: Search and Find information about the travel restrictions and precautions to take while travelling.

1. Ramesh visit the Dal CoViD web application.
2. He checks the number of cases in Halifax.
3. He checks and clicks on Travel section, and check if there are any travel restrictions.
4. He gets the information about the restriction and understand that it is risky to travel.
5. He reads about the precautions while travelling and gets to know about 14 days quarantine.
6. After knowing the details, he decides to stay here in Halifax, isolating himself as It is risky to travel currently.

A1.3. Site mapping (Matrix View) [1]
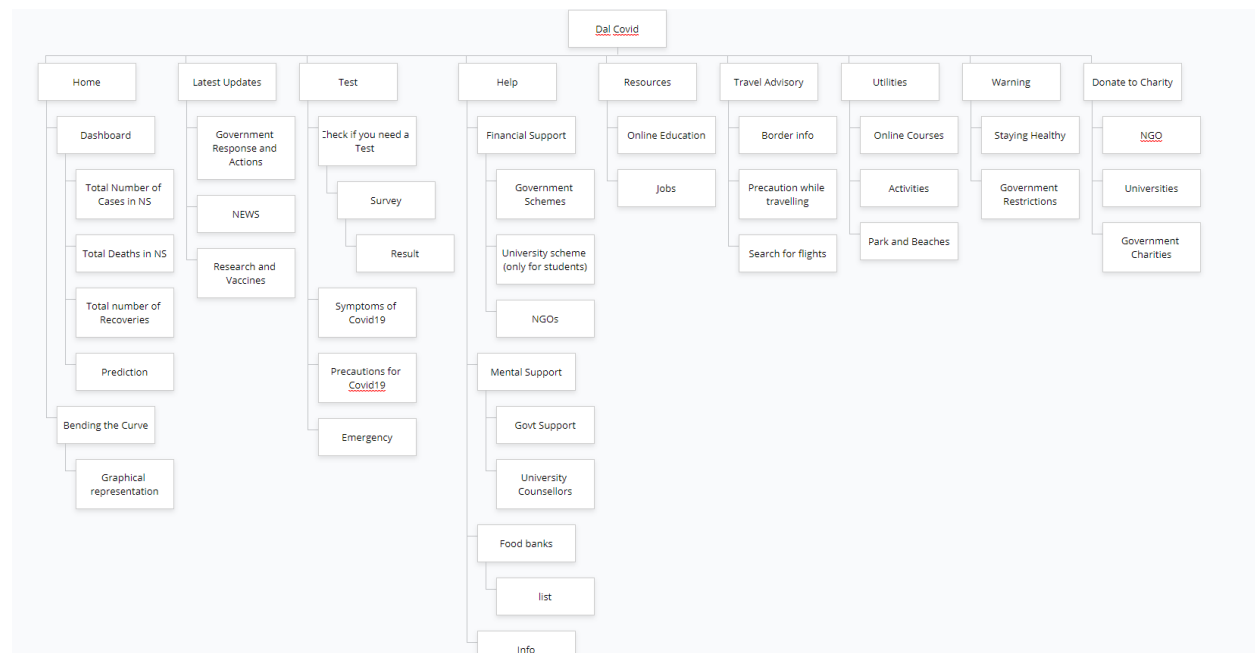
Figure 1:

A1.4. User Experience and Task Flow[2]

Legend of the Task Flow:
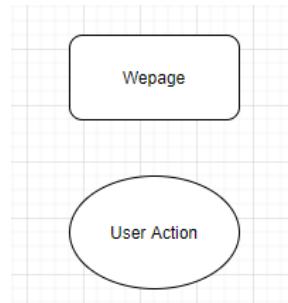
Figure 2:

1. **Home page**
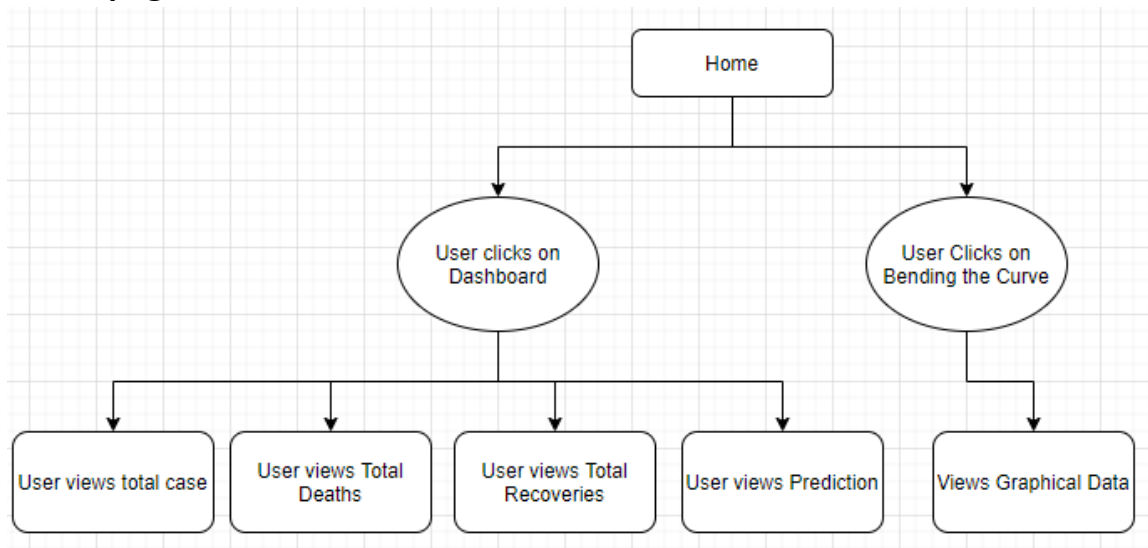
Figure 3:

2. **Latest updates:**
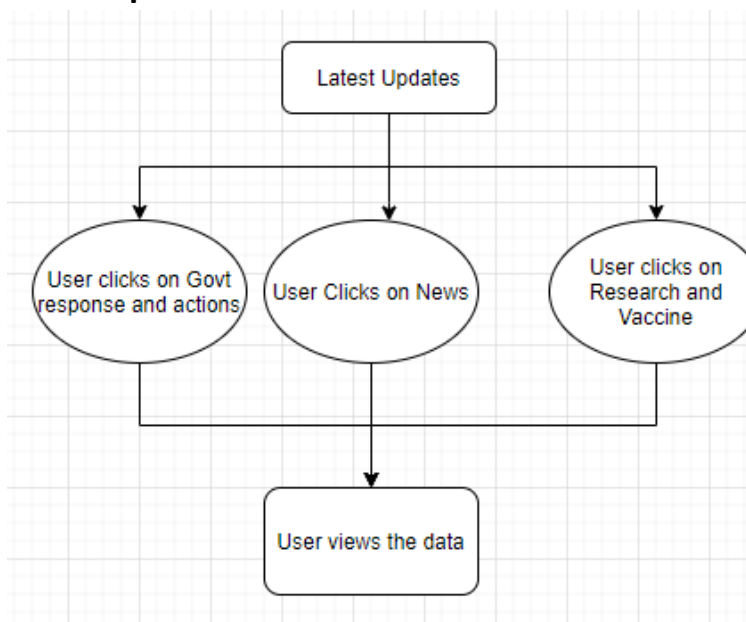
Figure 4:

3. Test:
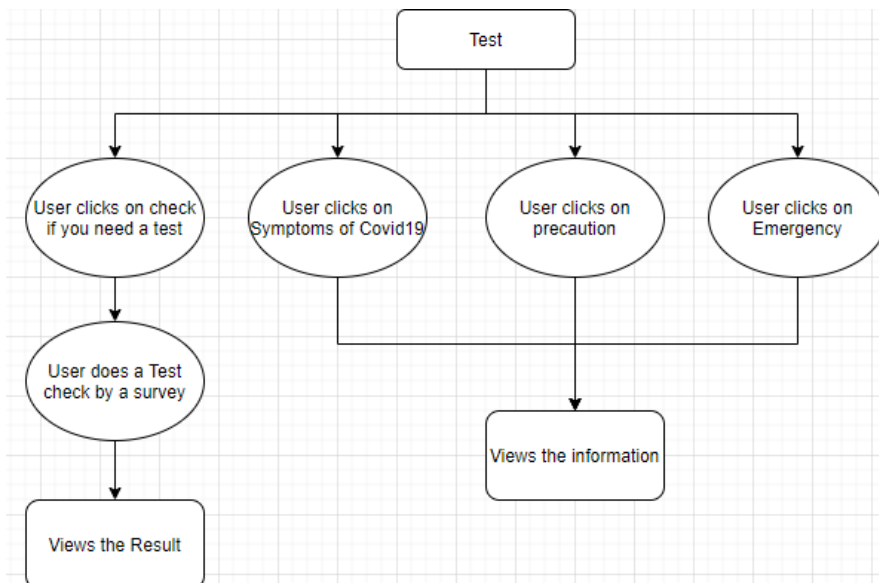
Figure 5:

4. Help:
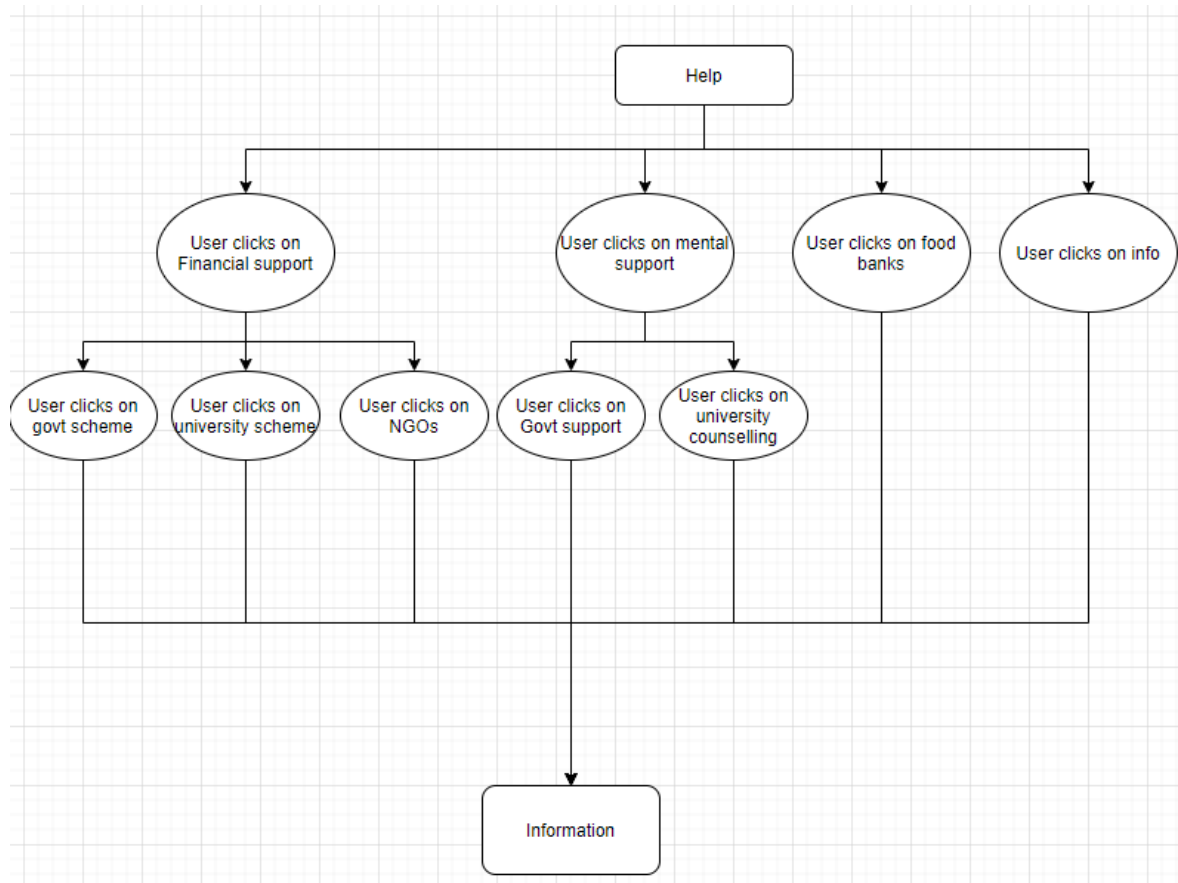
Figure 6:

5. Resources
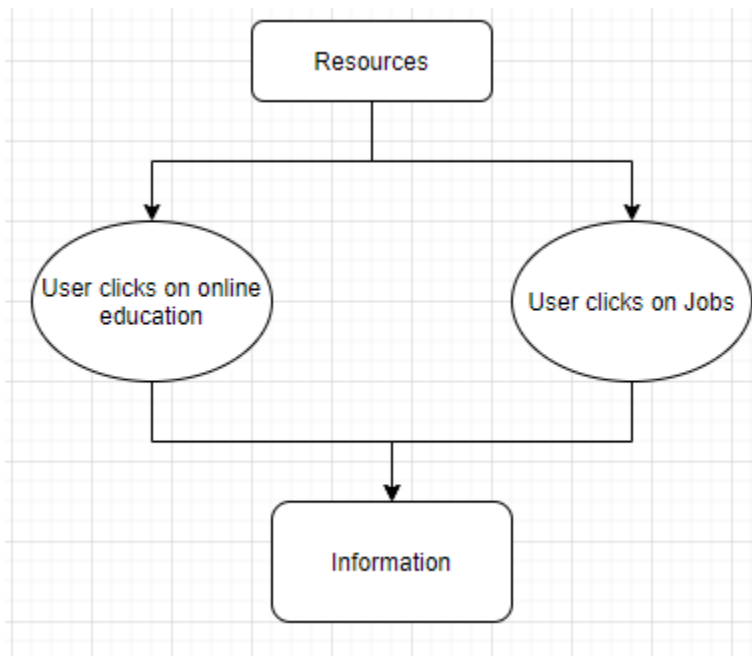
Figure 7:

6. Travel Advisory:
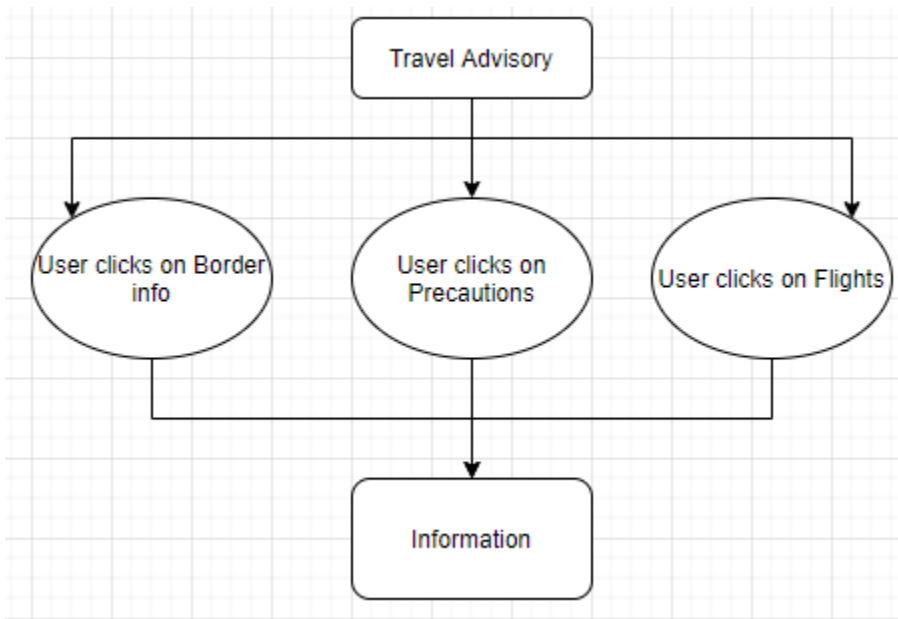
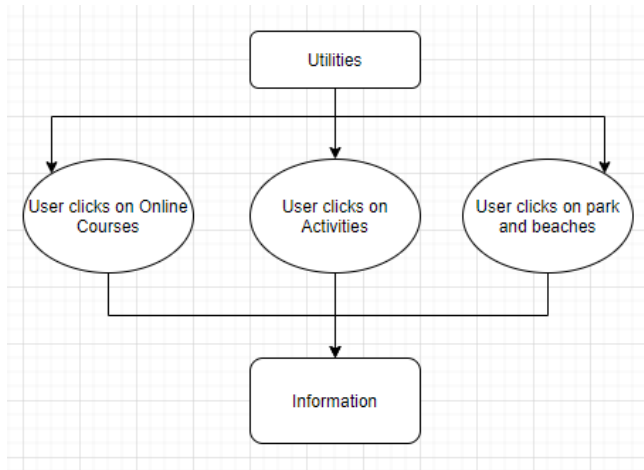**Figure 8:**

7. Utilities:

Figure 9:

8. Warning:
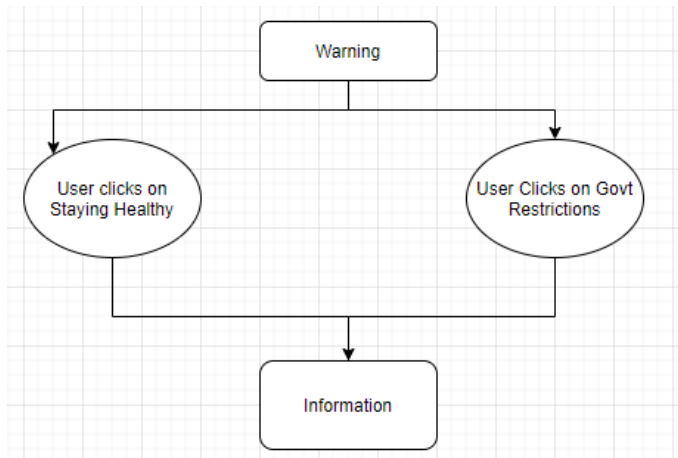
Figure 10:

9. Donate to Charity:
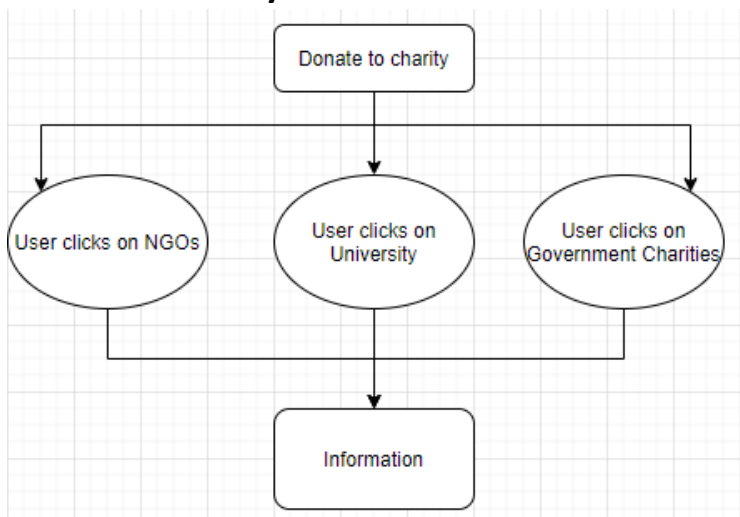
Figure 11:

A1.5. Lo-Fidelity Prototype [3]

1. Home Page:
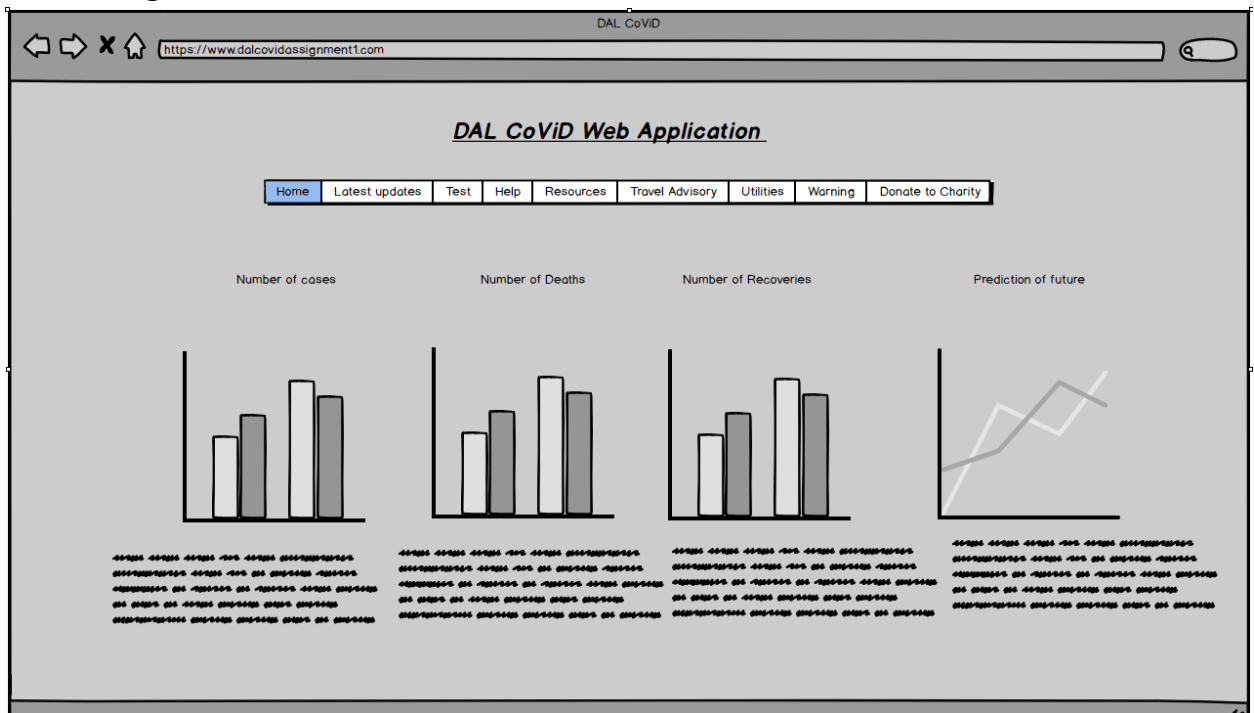
Figure 12:

2. Latest Updates page:
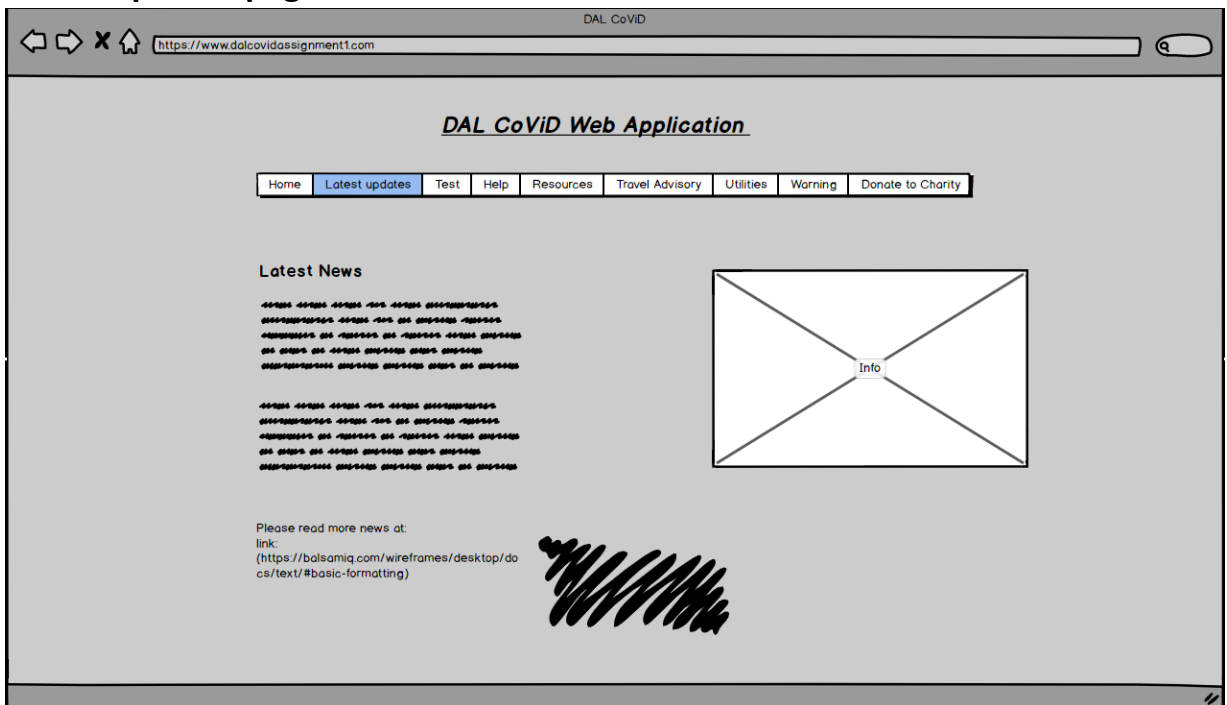
Figure 13:

3. Test Page
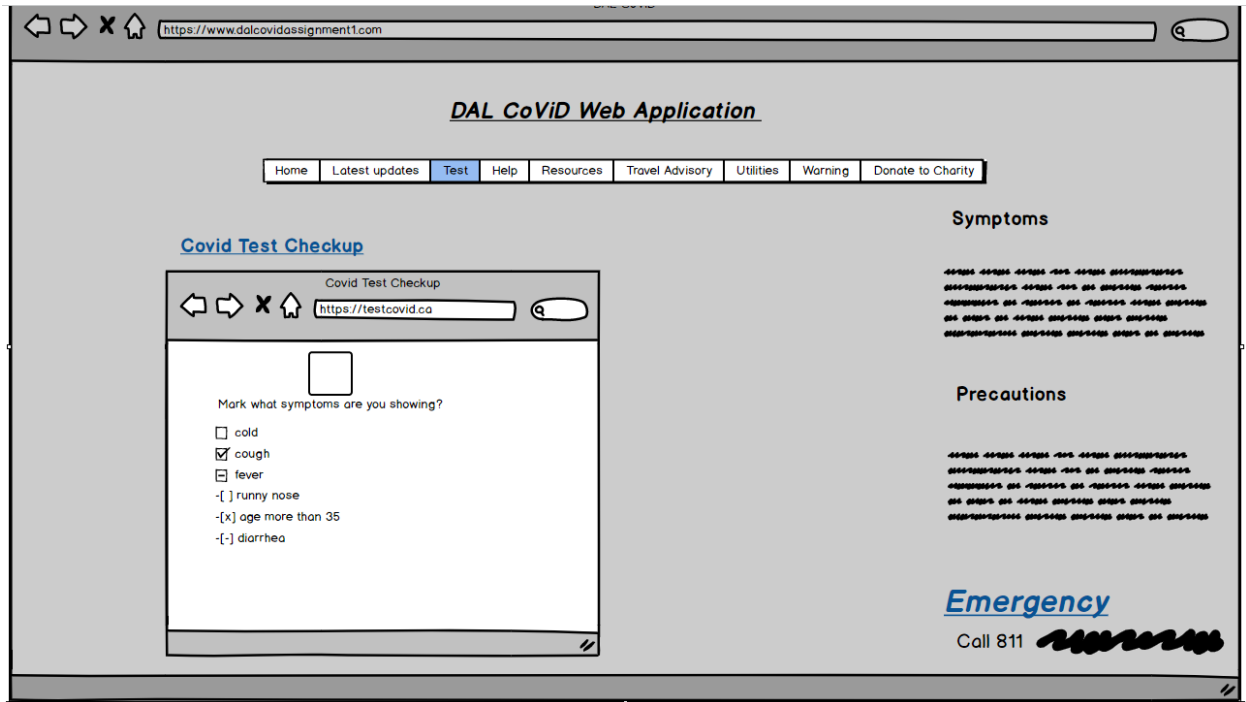
Figure 14:

4. Help Page
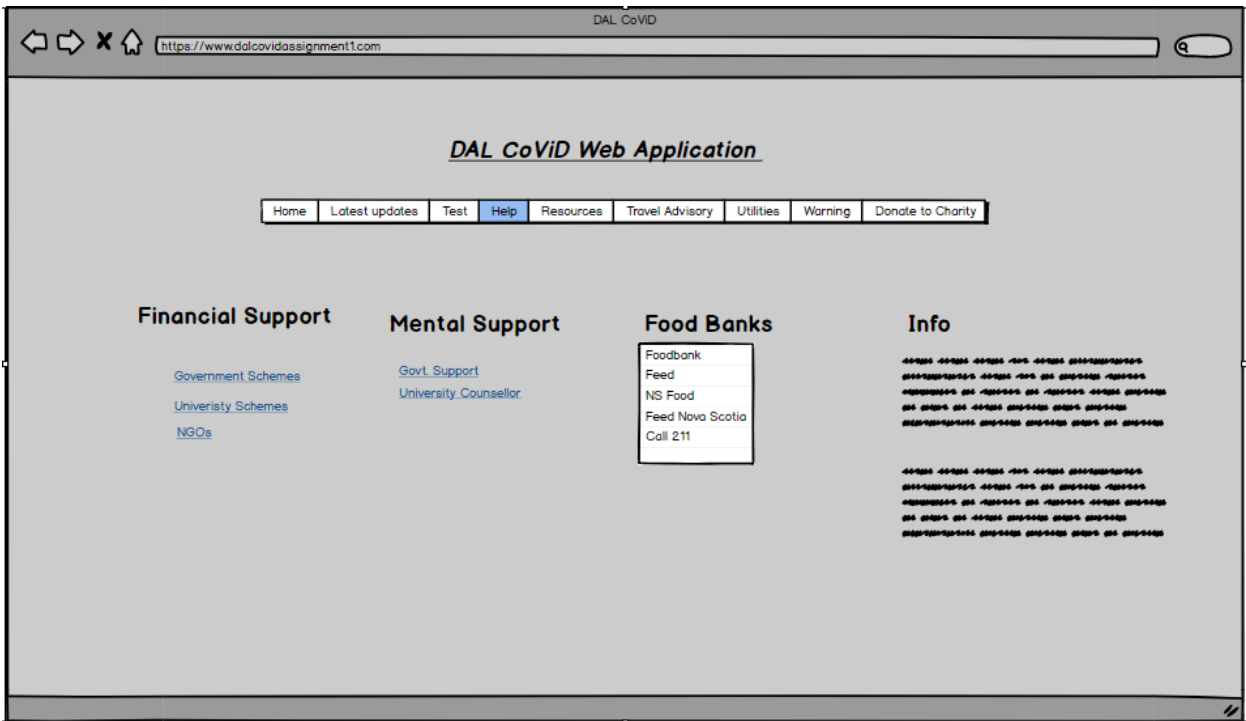
Figure 15:

5. Resources Page
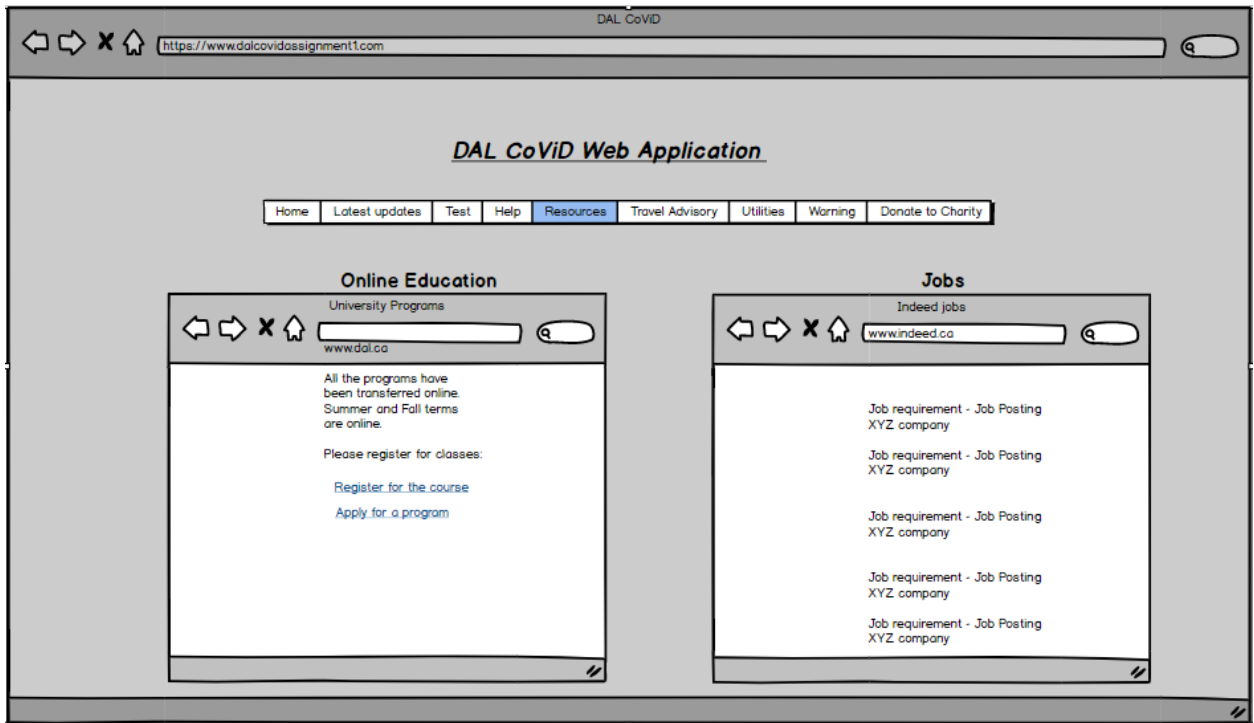
Figure 16:

6. Travel Advisory Page
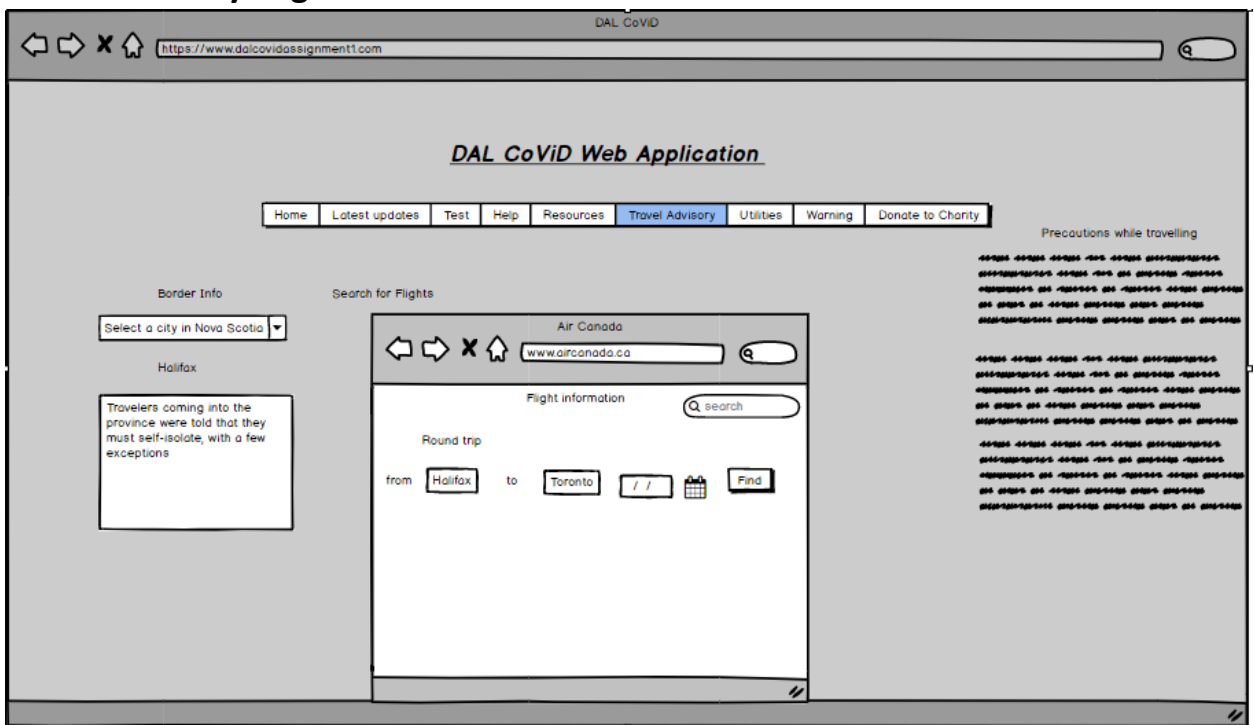
Figure 17:

7. Utilities Page
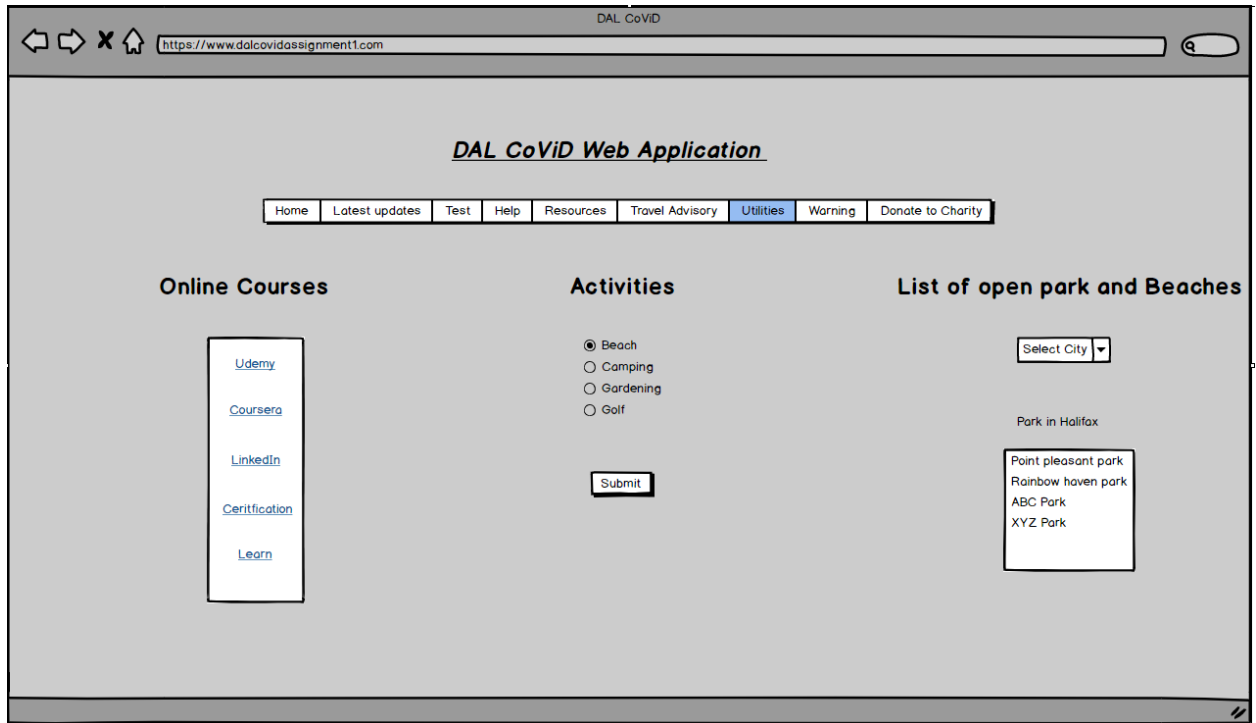
Figure 18:

8. Warning Page
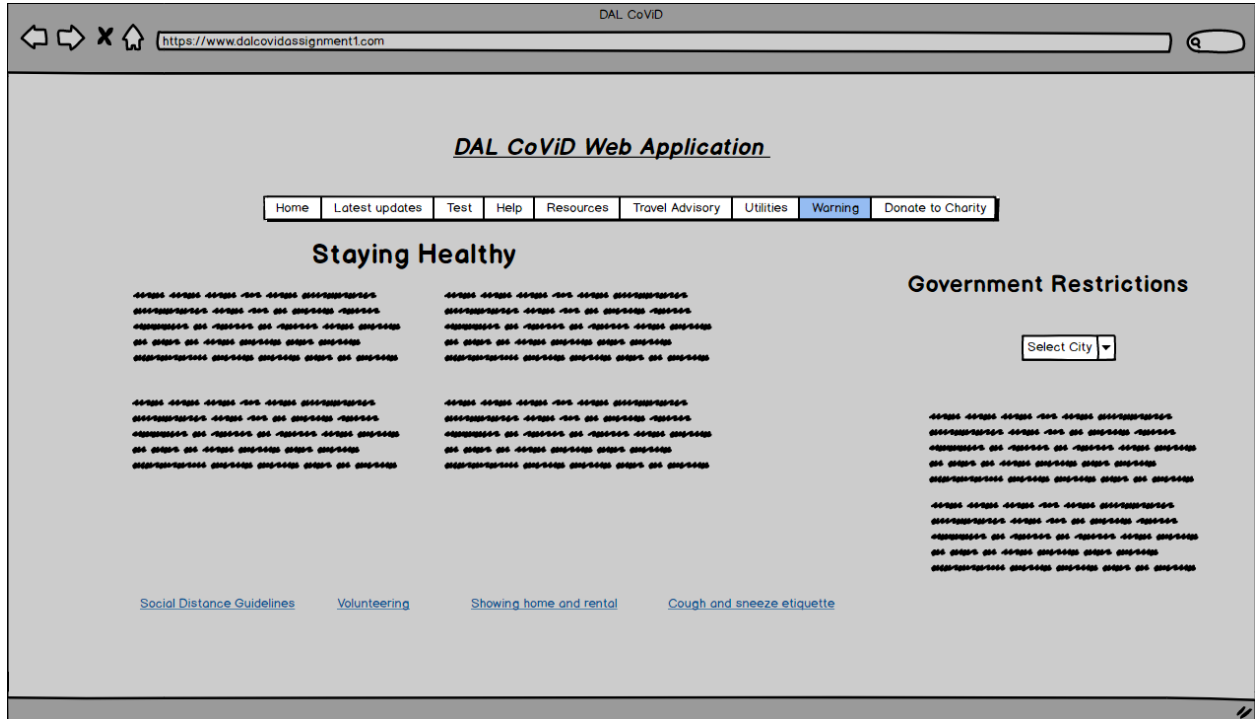
Figure 19:

9. Donate to Charity Page

Figure 20:

References:

[1]. gloomaps.com GlooMaps, "Visual sitemaps made easy," *GlooMaps*. [Online]. Available: https://www.gloomaps.com/9F7QFEPHb7. [Accessed: 22-May-2020].

[2]. "free flowchart maker and diagrams online," *Flowchart Maker & Online Diagram Software*. [Online]. Available: https://www.draw.io/. [Accessed: 22-May-2020].

[3]. "Balsamiq Cloud," Balsamiq Cloud. [Online]. Available: https://balsamiq.cloud/sk7rj2s/pewo2wn/r7B51. [Accessed: 22-May-2020].

[5]. Novel Corona Virus (Covid-19), "Government Response to COVID-19", *Nova Scotia*. [Online]. Available: https://novascotia.ca/coronavirus/. [Accessed: 22-May-2020].