

Vitamin Project

TEAM Vitamin-19

BHI 504, Spring 2019

Vitamin Project



- TEAM: Vitamin-19
 - With Heather Rohr

- BHI 504
 - *Systems Design, Integration, Safety, & Security*
 - Online graduate course (SUNY Oswego)

- Instructor Isabelle Bichindaritz, PhD, CPHIMS

Proposal: Goals and Ideas



- Create a web domain that could provide nutrition facts about vitamins and different foods that provided them.
 - Focus on Vegetables, Fruits, and Nuts for selections
- Possibilities of using Java script or other techniques in HTML to display doses recommended for each type of person.

Alternative suggestions



- A phone friendly application to remind patients every day to take their required vitamins or medicine.
- A patient could have also slide a “check” mark after taking the vitamin and receive notifications for refills after getting personalized by a patient.
- - However, the website was to be more likely to be made into a ready-to-use item.
 - I was under the impression that I did not have the resources to make a workable application in the desired time period.

Possible people to design for

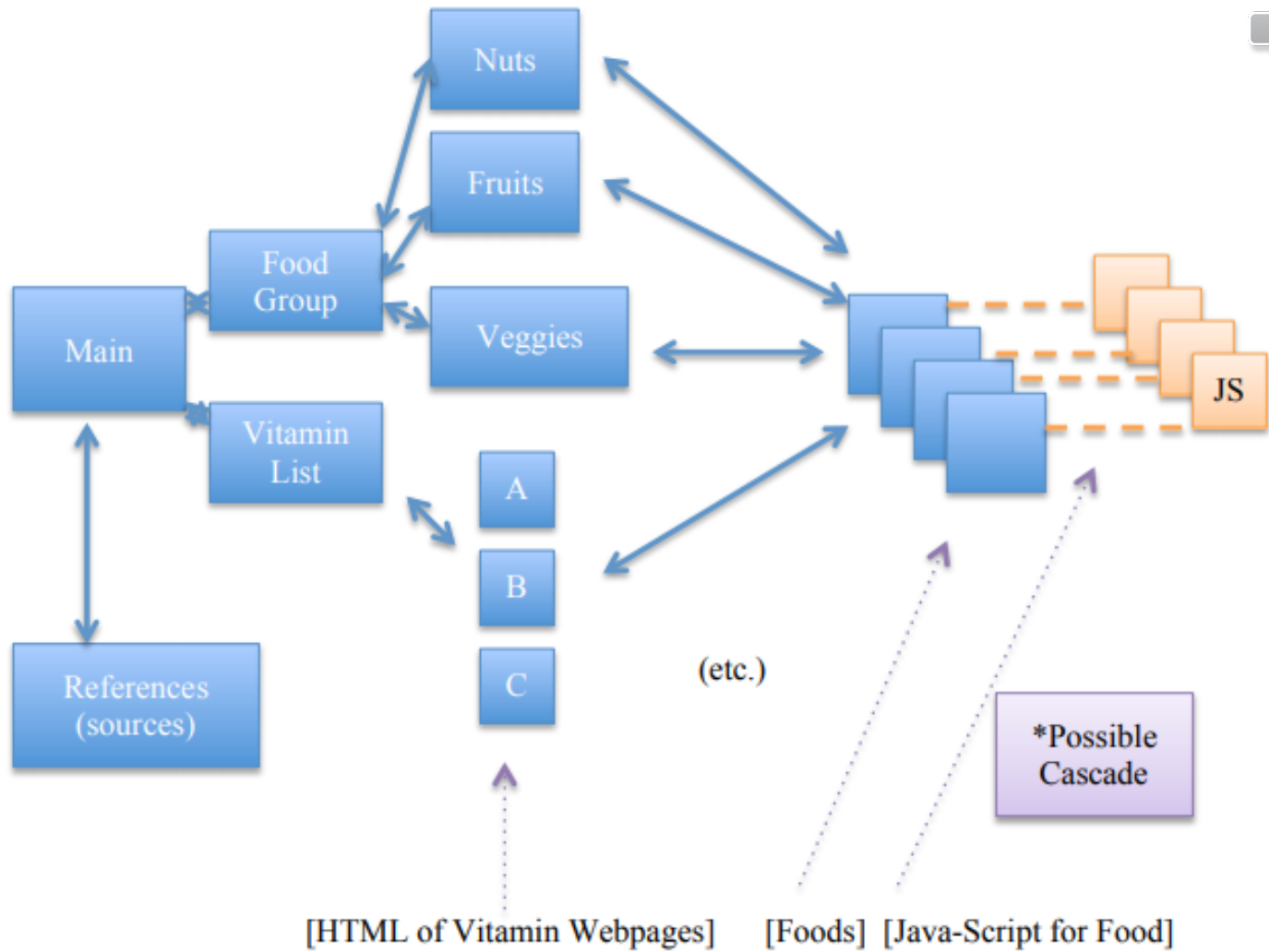
- Planned users should include causal people with an interest in healthy living and concern for vitamin intake.
- Interviews are available for all genders
 - Women would become a major focus
- The project may not be design for people whom are seriously ill. But the project would be available for users whom are interested in making some improvement in their health or observe useful information.

Examples of User Stories and suggestions



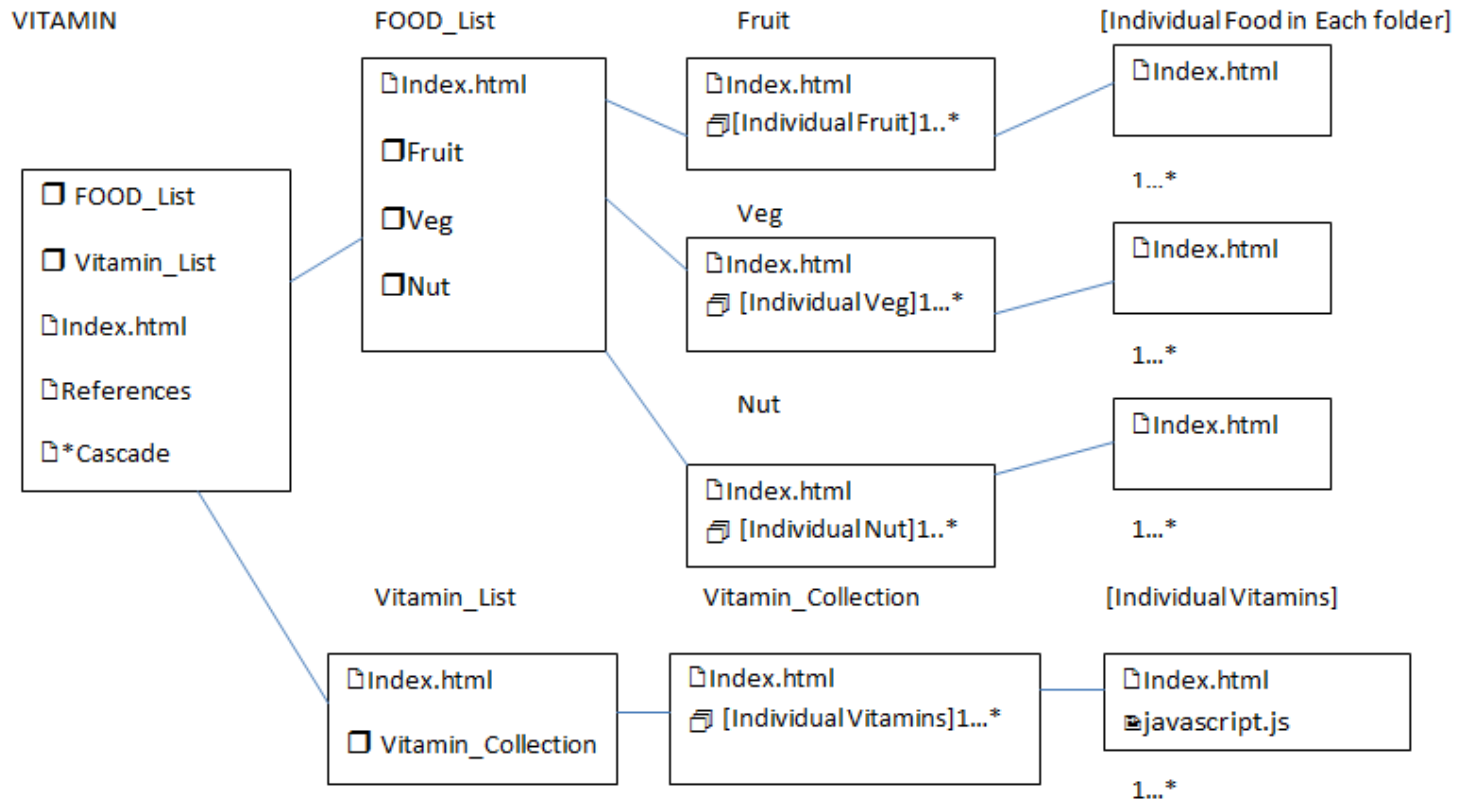
- I want to be able to figure out what vitamin deficiencies I have and what foods will help provide all the nutrients I need.
- It would be good to know which vegetables and fruit will give me the most energy because I like to workout.
- As an older woman with an older husband I am concerned about Alzheimer's and whether there are natural foods that help with memory loss.
- As a woman with high cholesterol, I would like to alternative supplements or additional foods to help lower my cholesterol. There are pills to help lower cholesterol but some have side effects or might be expensive.
- I would like to know the benefits of each vitamin.
- After hearing stories, I would like to know the details of risk when taking too much of a vitamin in general.

Possible Basic Outline of HTML of webpages



*Each webpage should have a link to the Main Page

Another diagram for HTML Folders (created later)



Displaying doses



- Originally, if it was available on the website, testing should be done with both “Java-script” and external source (i.e. paper or a calculator), to make sure that the calculations are close to correct when measuring numbers with vitamins and users.
- The books referenced later, just displayed doses.
 - `<select>` tags were used instead for doses according to sex or pregnancy status.
- A “construction disclaimer” was to be made on the webpage if the Java-script options are not working or if the website was incomplete.

Vitamin C source in HTML

```
C:\Users\Heather Rohr\Desktop\BHI504\Vitamin-19Project\Vitamin\C\index.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
index.html x index.html x index.html x index.html x index.html x
87 <td width = "50%">
88 <p>
89 Good for the immune system. Vitamin C makes collagen, an important protein in skin, cartilage, tend
90 <br/>
91 Vitamin C helps with immunity boost and resistance. It could reduce the duration of a cold.
92 <br/>
93 Vitamin could help with improving fertility with the men's cells and protect genetic material.
94 </p>
95 <p>
96 <h4>Recommended Doses</h4>
97 <form>
98
99 <select id="gender">
100 <option value="No Selection">(Pick what describes you the best.)</option>
101 <option value="adult"> An adult person in general : 60 mcg.</option>
102 <option value="woman">An average woman over 18 : 75 IUs.</option>
103 <option value="pregnant">A pregnant woman : 85 IUs.</option>
104 <option value="man">An average man over 18 : 90 IUs.</option>
105
106 </select>
107 </form>
108 <!--
109 <p><input type ="button" onclick="giveRecommendedDose()" value="Display"/>
110 <p id="selection"></p>
111 --->
112 </p>
113
```

Business ethics and facts



- Before supplying the information, the “facts” had to be verified with legitimate or relevant sources.
- Either at the foot of the webpage or a reference page on the website, the source of the information had to be acknowledged and provided.
- Unless the photographs and artwork were original, credits had to be given to the original source.
 - Photographs and artwork were not yet used for the project

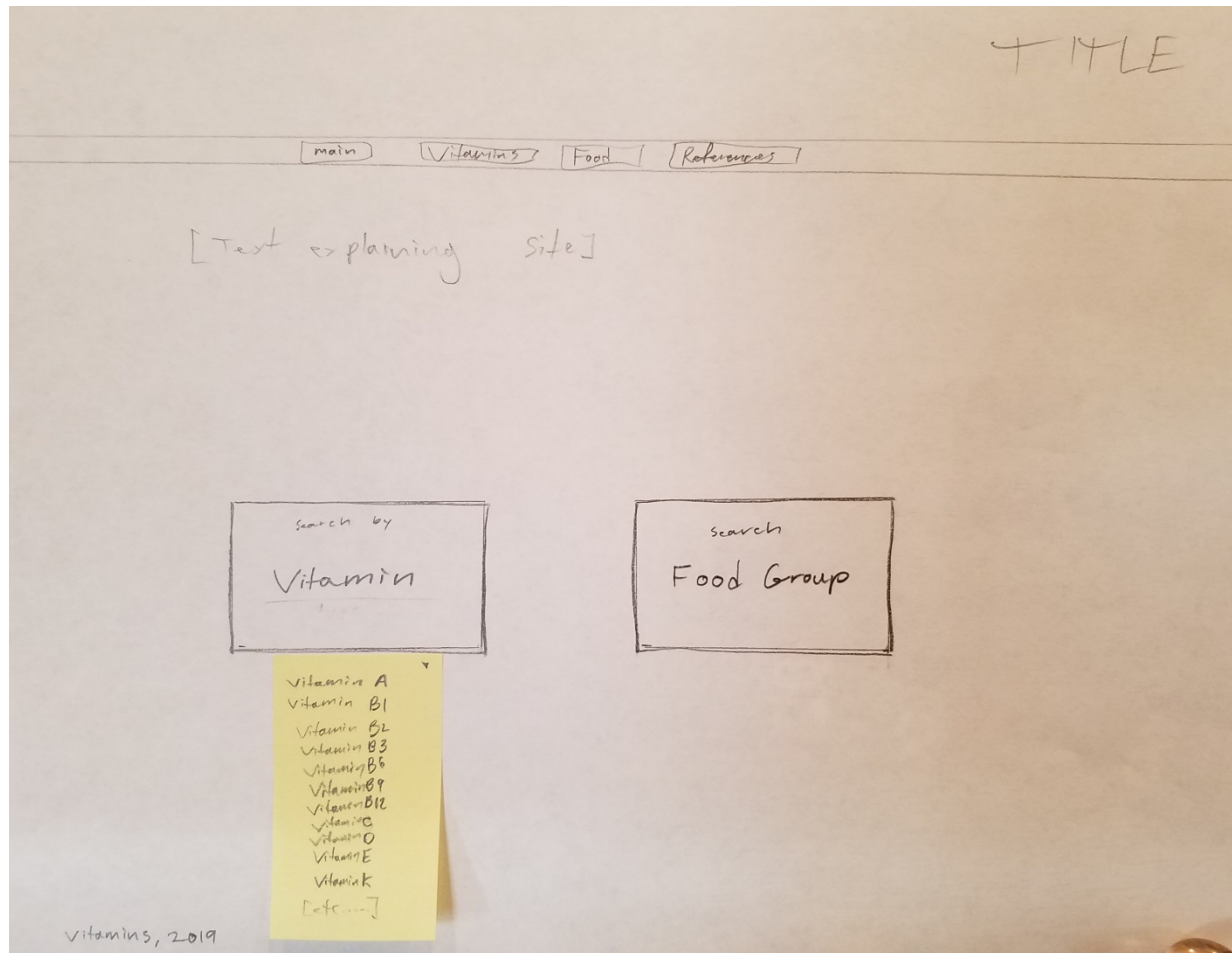
Wireframes, paper prototyping, and rough drafts for website



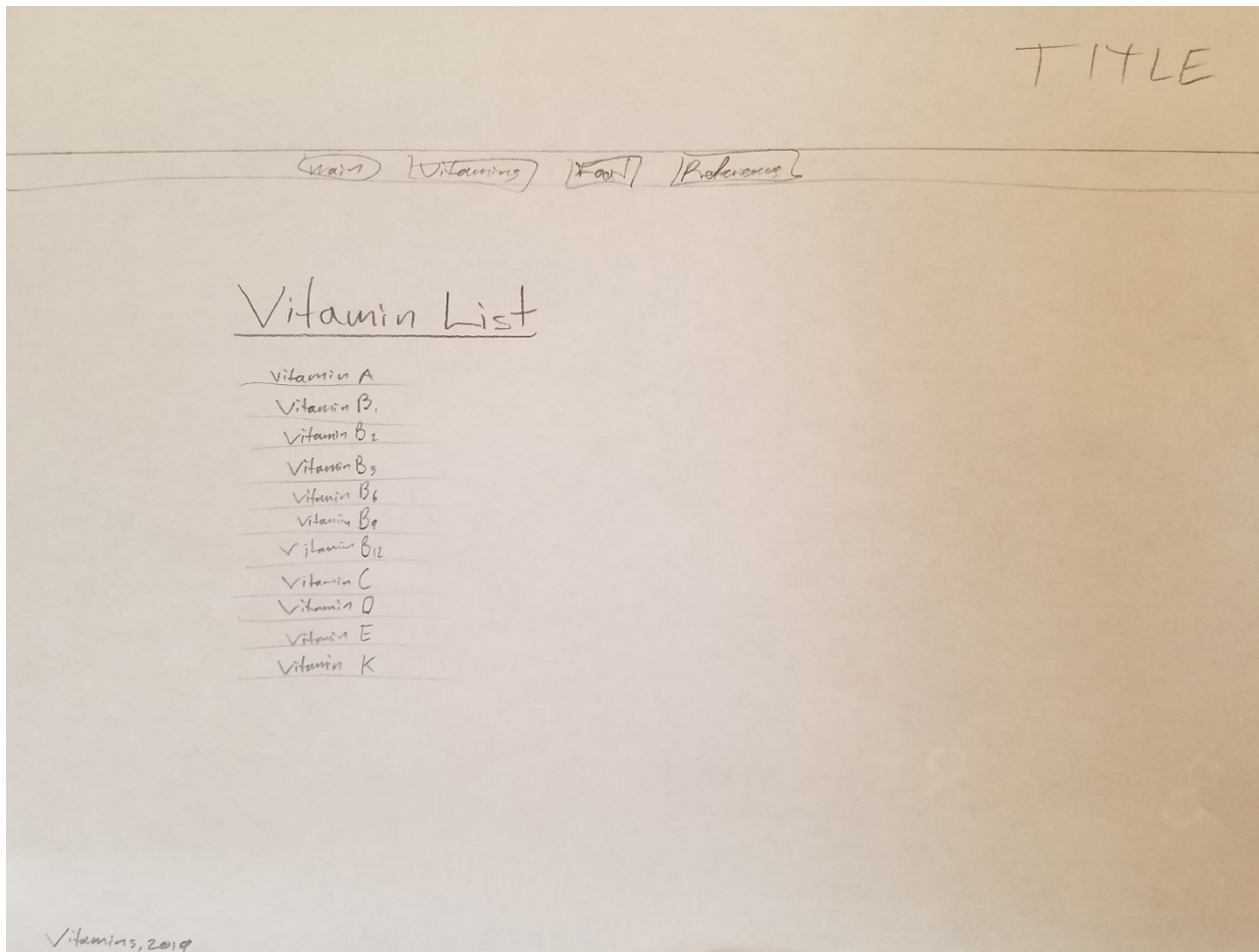
The image displays six hand-drawn wireframe sketches on sticky notes, arranged in a 2x3 grid. Each sketch represents a different page of a website:

- main Page:** Features a header with "[Name of Site]", a "Possible Navigation Bar (References)", a "[Text]" block, two boxes labeled "Vitamins" and "Food Groups", and another "[Text]" block.
- Food:** Features a header with "[Name of Site]", a horizontal bar, and three boxes labeled "Fruits", "Vegetables", and "Nuts".
- Certain Food List:** Features a header with "[Name of Site]", a horizontal bar, and a large box containing "List of [Fruit] Text" with several horizontal lines representing text.
- Vitamin:** Features a header with "[Name of Site]", a horizontal bar, and a large box containing "Vitamin Text" with several horizontal lines representing text.
- One food:** Features a header with "[Name of Site]", a horizontal bar, a "[Name]" label above a "Text" box, an "Image" box with an 'X' inside, and a list of "Gender", "Weight", and "Age" with checkboxes and a "check" button. Below this is a "Recommended Portion" box with a right-pointing arrow.
- References:** Features a header with "[Name of Site]", a horizontal bar, and a large box containing "References" with "List of links" and several horizontal lines representing text.

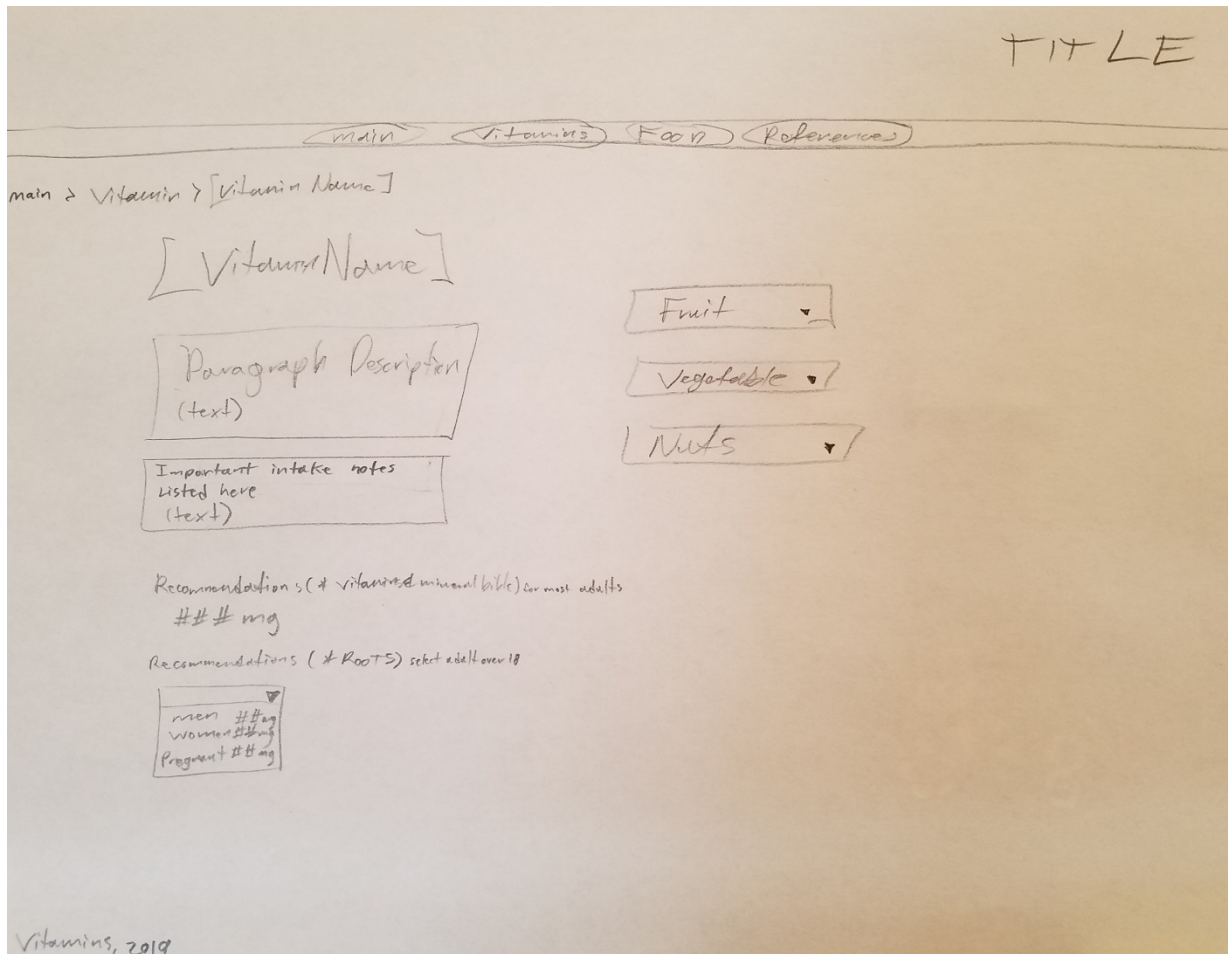
Sketch of Main Page



Sketch of Vitamin List



Sketch of a Vitamin



Sketch of an individual food



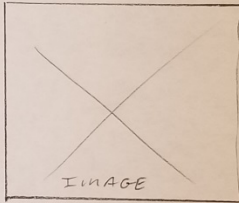
TITLE

main Vitamins Food References

Foods > Fruit > Tomato

Tomato

Paragraph Description

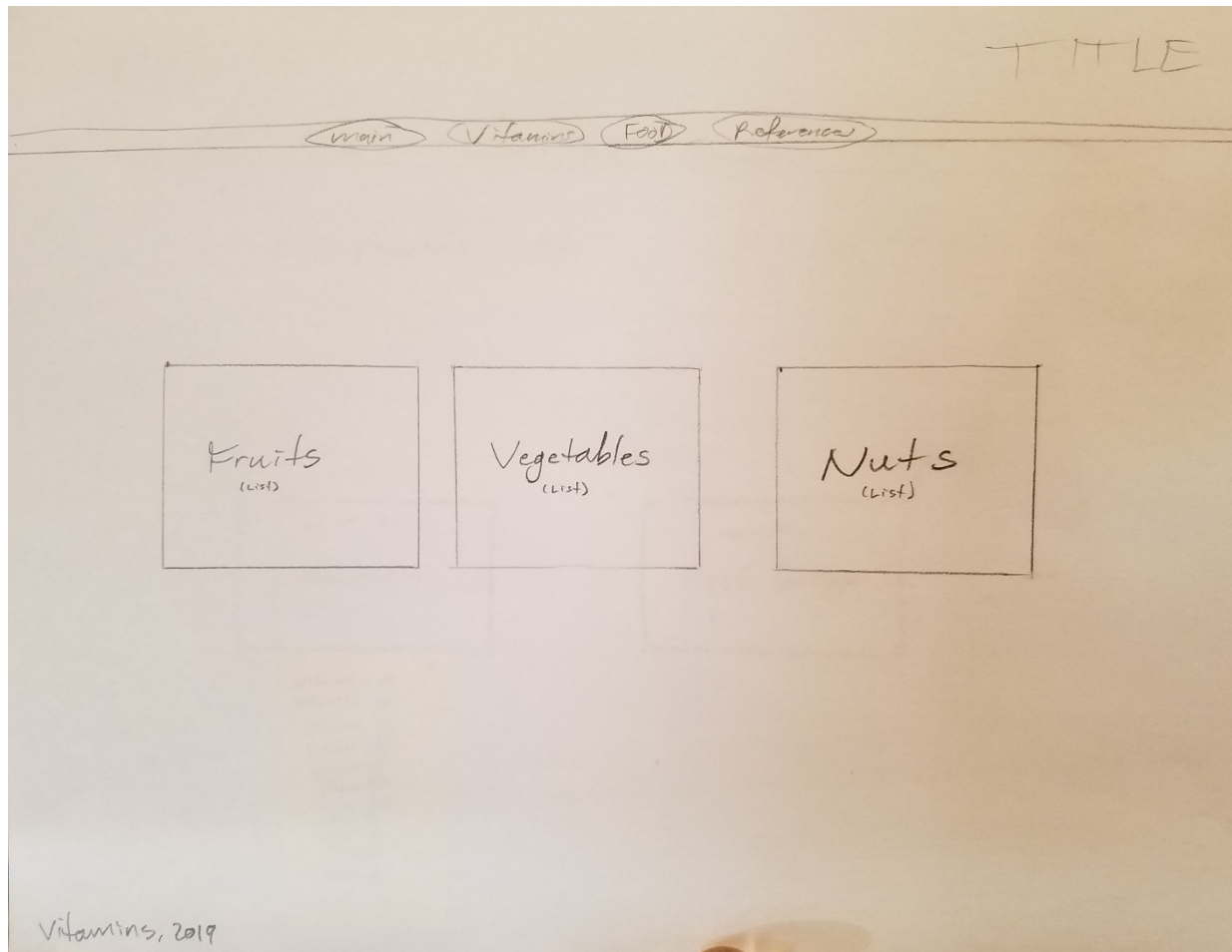


Vitamin Links:

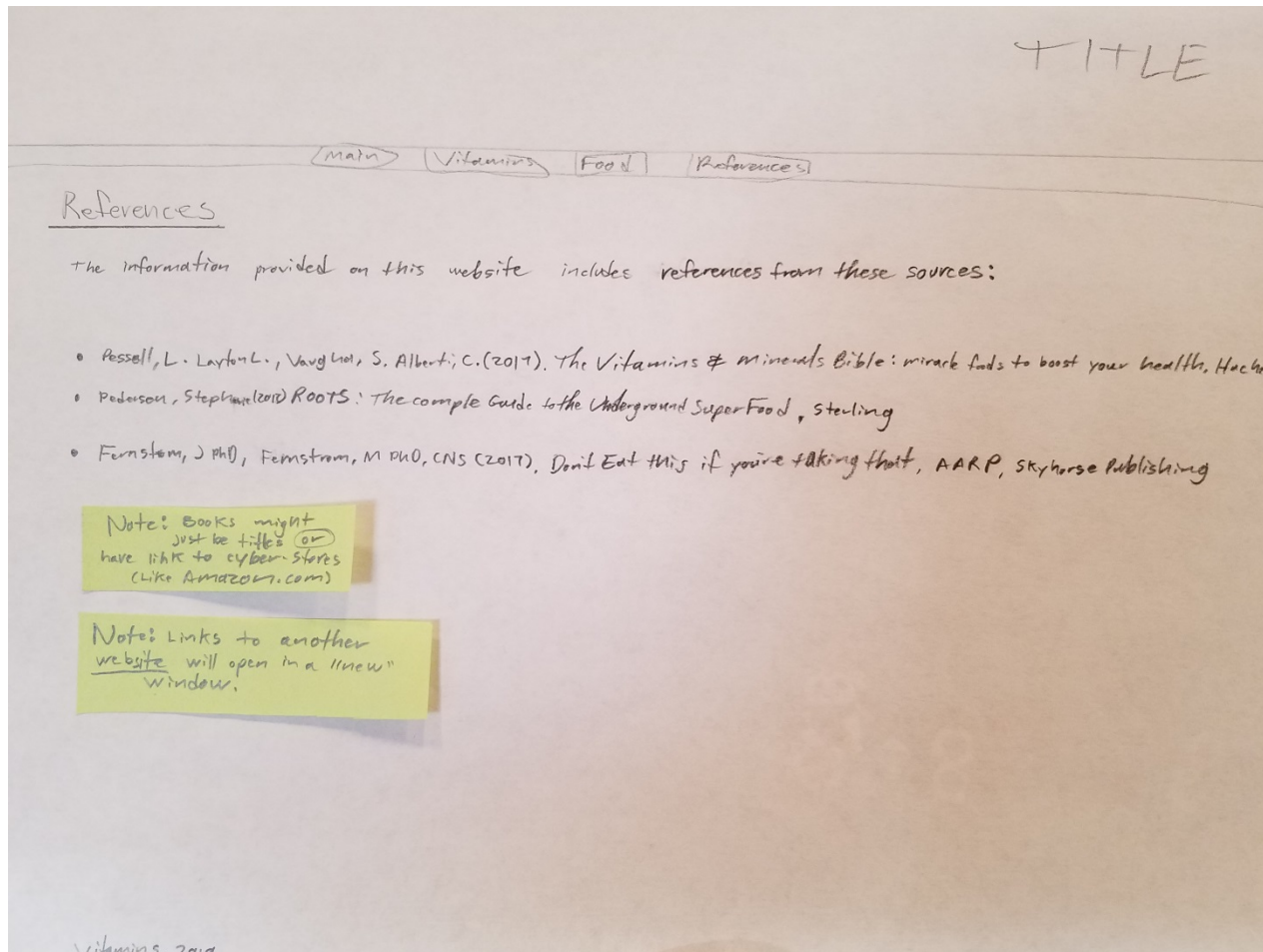
<u>Vitamin A</u>	
<u>Vitamin C</u>	(17mg)
<u>Vitamin E</u>	(1.2mg)
<u>potassium</u>	(259mg)
<u>calcium</u>	(7mg)
<u>magnesium</u>	(7mg)

Vitamins, 2019

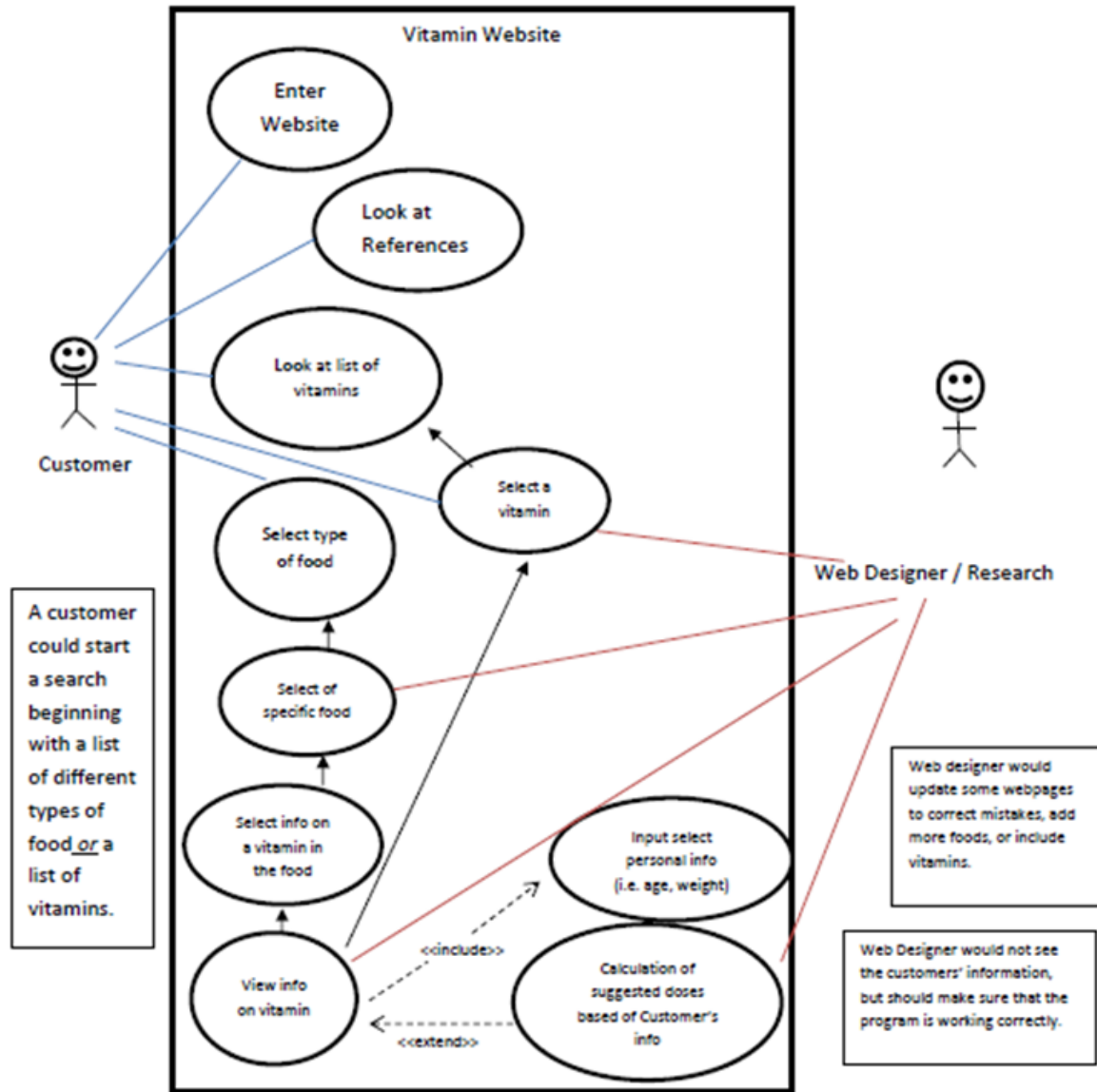
Sketch of Food Selection Page



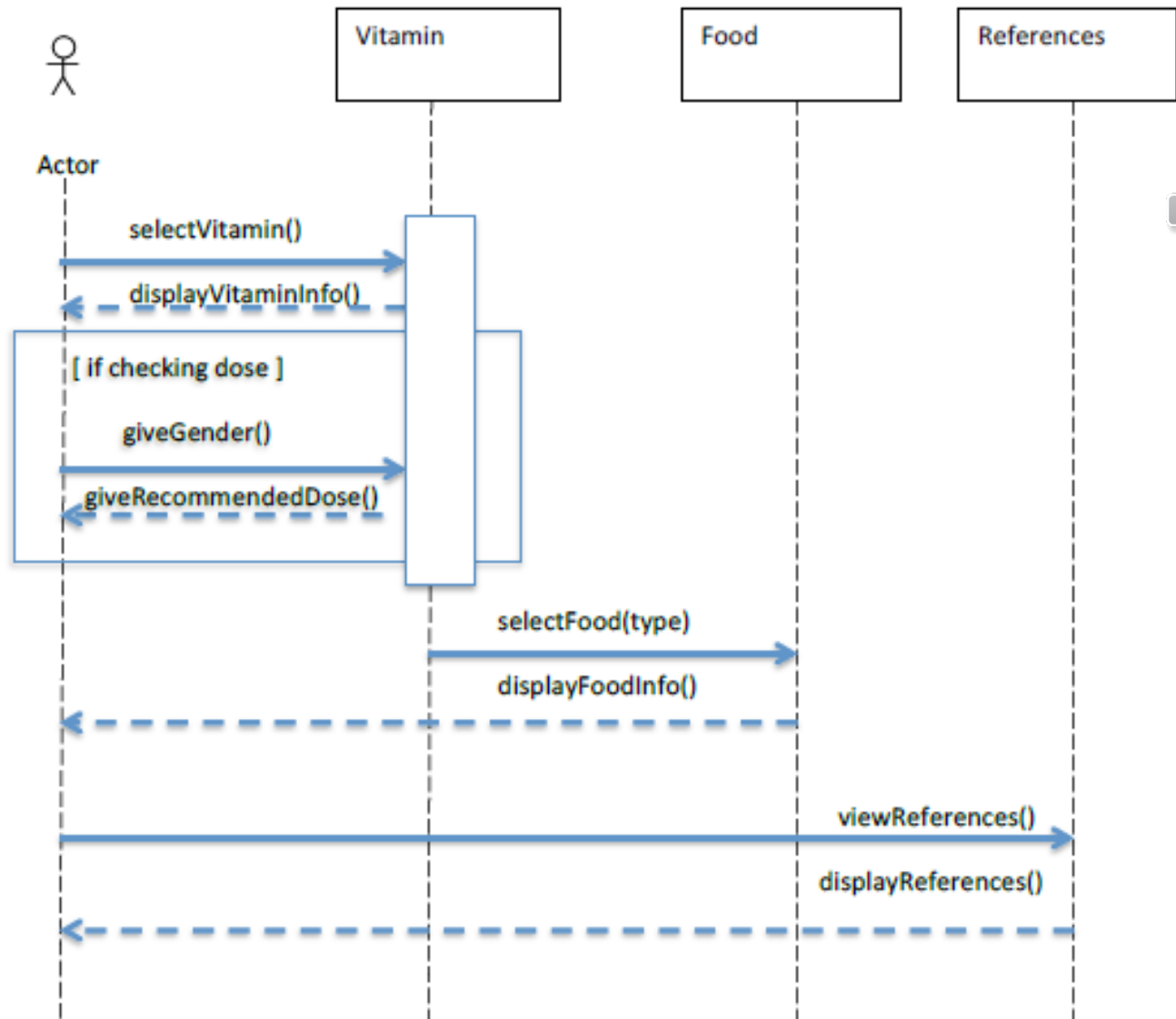
Sketch of Reference page



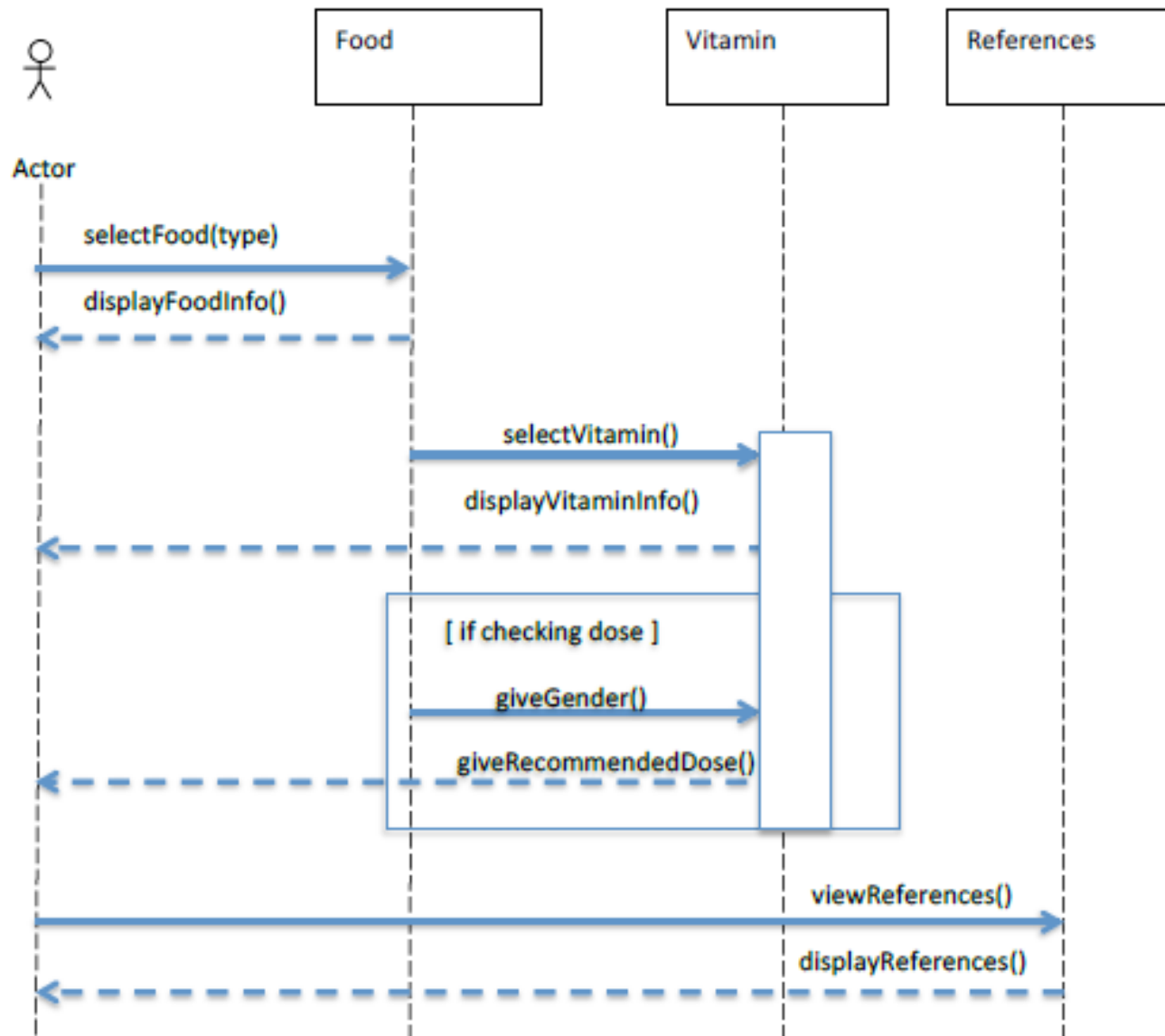
Use Case Diagram (Originally)



User Story (Sequence Diagram) Example One

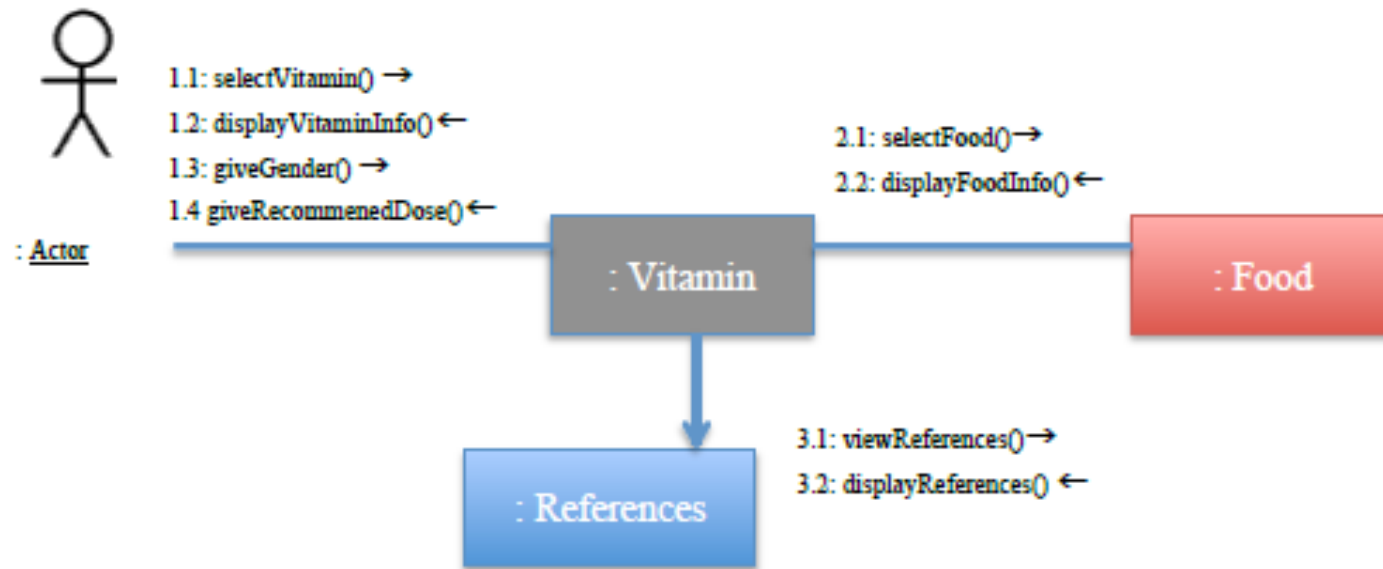


User Story (Sequence Diagram) Example 02

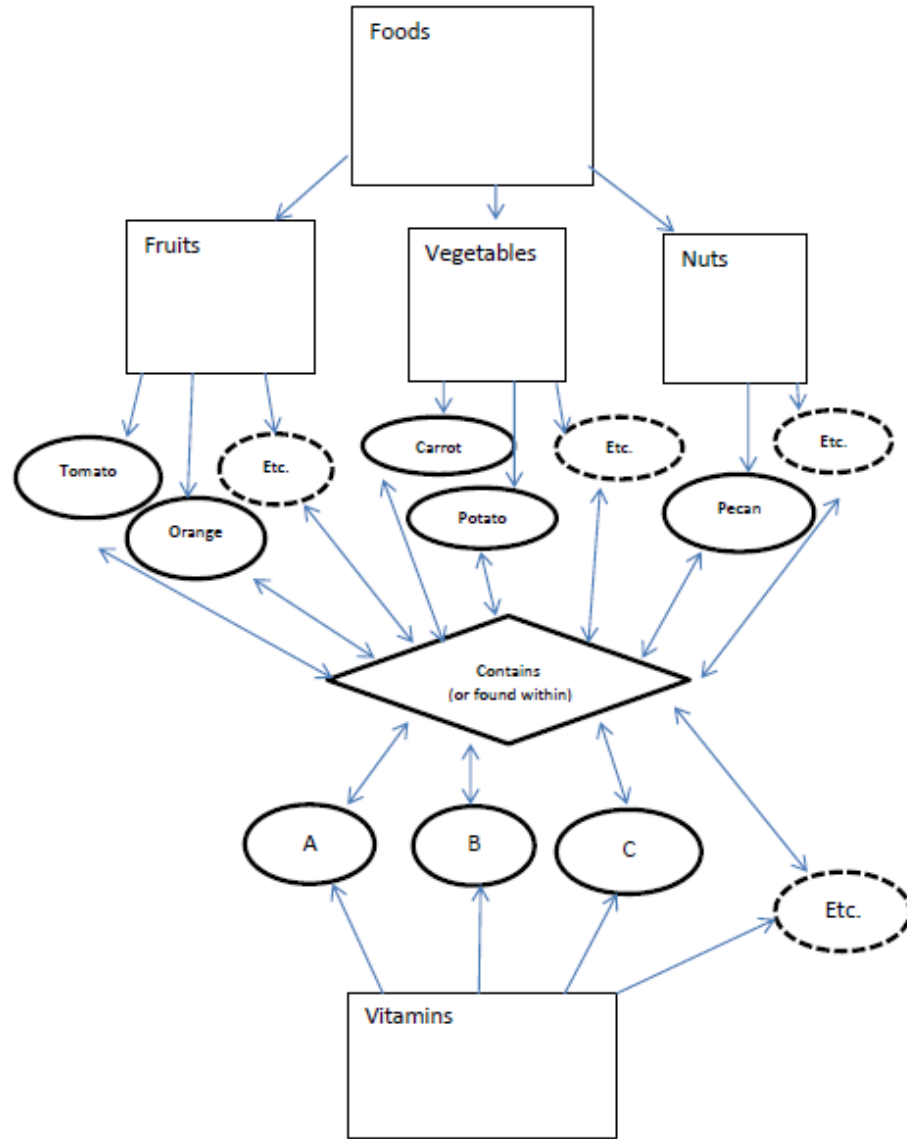


A one-page sequence diagram that represents the collaborations from when the application first starts up to just prior to the first user interaction.

Collaboration Diagram for Select Vitamin



Alternative diagram for the design



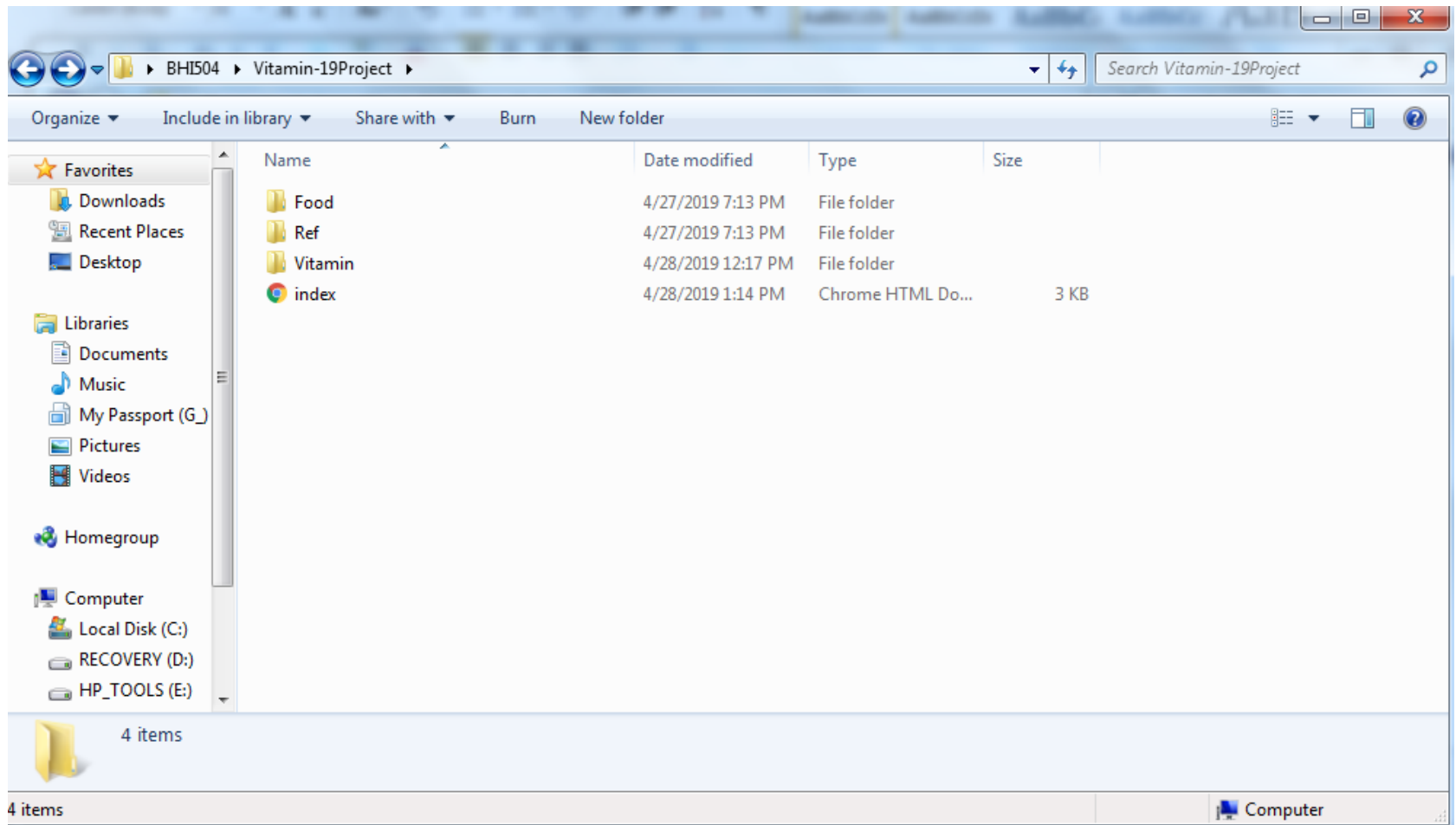
Building the website

Screenshots and
examples

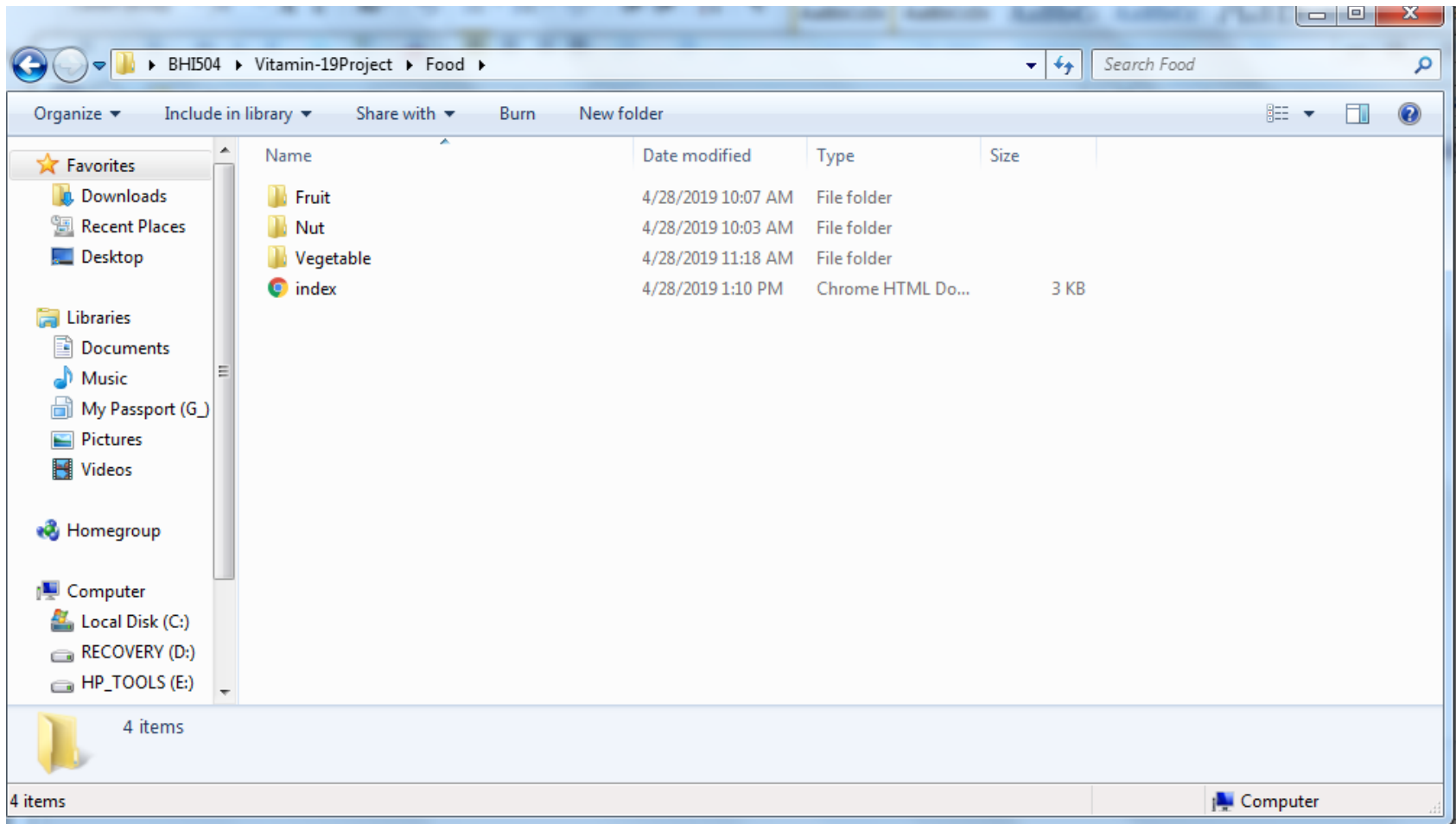
Web addresses

- ePortfolio:
 - <http://pi.cs.oswego.edu/~hrohr/coursework/BHI504/>
- Vitamin Project Website:
 - <http://pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/>

Examples of Folders holding HTML (which later upload to the web)



Examples of Folders holding HTML (which later upload to the web)



ePortfolio for BHI 504



BHI 504 - Vitamin-19

Not secure | pi.cs.oswego.edu/~hrohr/coursework/BHI504/

Apps | Important ISC / HCI | Computer Extra | Shop | Fun to check | WEB-COMICS | SUNY Oswego | Yahoo | Log In to Canvas | Google Drive

BHI 504 - Profile for Project

Systems Design, Integration, Safety, & Security with Instructor Isabelle Bichindaritz, PhD, CPHIMS

Team: Vitamin-19

Member: Heather Rohr

As of April 2019, this is the default profile page for the Team Vitamin-19 project for graduate course BHI 504 at SUNY Oswego. The project involves vitamins and the food that are said to supply them. References would be made the text used for the project. I, Heather Rohr, would be the student in charge of each "class", HTML, and any coding for the project. Classes may include "Vitamin" and "Food".

- [URL Link to Vitamin-19 Website\(under construction\)](#)

Check-In Files (already uploaded to Blackboard)

- [Vitamin-19 Proposal](#)
- [Vitamin-19 Check-in-one](#)
- [Vitamin-19 USER STORIES](#)
- [Vitamin-19 Check-in-two](#)
- [Vitamin-19 Check-in-three](#)
- [Vitamin-19 Check-in-four](#) (Sequence Diagrams)
- [Vitamin-19 Design](#)
- [Vitamin-19 Check-in-five](#) (myself mentioned on this webpage)

Vitamin Project – Main Page



Vitamin Project

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

WELCOME!

This an information domain site in regards to "Vitamins." Here one could find information on select vitamins, the benefits, and which foods provide them. Foods on this site include Vegetables, Fruits, and Nuts.

Team: Vitamin-19

Member: Heather Rohr

NOTE: The site is part of a graduate school project. Books were used to provide information on the vitamins (check "[Reference](#)", if you wish to see the sources). I, Heather Rohr, would be the student in BHI 504 (SUNY Oswego) charge of each "class", HTML, and any coding for the project. Classes could include "Vitamin" and "Food".

[Vitamin List](#)

[Food List](#)

“References” Page



References

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

Listed are books and sources referenced in the Vitiman Project.

- Russel, L., Layton, L., Vaugh, S., Alberti, C. (2017). *The Vitamins & Minerals Bible: Miracle foods to boost your health*. [An Hachette UK Company](#).
- Pedersen, Stephanie. (2017). *ROOTS: The Complete Guide to the UNDERGROUND SUPERFOOD*. [Sterling New York](#).
- Fernstrom, M. PhD CNS & Fernstrom, J. PhD. (2017). *Don't Eat This If You're Taking That: The Hidden Risks of Mixing Food and Medicine*. AARP Real Possibilities. [Skyhorse Publishing](#).
- [W3School.com](#)

Main Page (let's look at the vitamin list)

Vitamin Project

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

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[Vitamin List](#)

[Food List](#)

Vitamin List Page



Browsers: BHI 504 - Vitamin-19, Vitamin-19 Project - Vitamin List, Week 12 - Unit Testing - (201901)

Address bar: Not secure | pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/Vitamin/

Navigation: Apps, Important ISC / HCI, Computer Extra, Shop, Fun to check, WEB-COMICS, SUNY Oswego, Yahoo, Log In to Canvas, Google Drive

Vitamin Project

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

VITAMIN SELECTION LIST

- [Vitamin A](#)
- Vitamin B1
- Vitamin B2
- Vitamin B3
- Vitamin B5
- Vitamin B6
- Vitamin B12
- [Vitamin C](#)
- Vitamin D
- Vitamin E
- Vitamin K

- Alpha-Carotene
- Beta-Carotene
- Calcium
- Choline

Example: Vitamin C



Browsers: BHI 504 - Vitamin-19, Vitamin-19 Project - Vitamin C, Week 12 - Unit Testing - (201901)

Address: pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/Vitamin/C/

Navigation: Apps, Important ISC / HCI, Computer Extra, Shop, Fun to check, WEB-COMICS, SUNY Oswego, Yahoo, Log In to Canvas, Google Drive

Vitamin Project

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

Vitamin C

Good for the immune system. Vitamin C makes collagen, an important protein in skin, cartilage, tendons, ligaments, and blood vessels. It can help with wounds and some scar tissue. Vitamin C helps with immunity boost and resistance. It could reduce the duration of a cold. Vitamin could help with improving fertility with the men's cells and protect genetic material.

Recommended Doses

(Pick what describes you the best.)
(Pick what describes you the best.)
An adult person in general : 60 mcg.
An average woman over 18 : 75 IUs.
A pregnant woman : 85 IUs.
An average man over 18 : 90 IUs.

Foods with this Vitamin

Vegetables

- Green Bell Pepper
- Cabbage
- Potato

Fruits

- Mango
- Orange
- [Tomato](#)

Example: Vitamin C



Recommended Doses

(Pick what describes you the best.) ▼

(Pick what describes you the best.)

An adult person in general : 60 mcg.

An average woman over 18 : 75 IUs.

A pregnant woman : 85 IUs.

An average man over 18 : 90 IUs.

Example: Vitamin C

BHI 504 - Vitamin-19 x Vitamin-19 Project - Vitamin C x Bb Week 12 - Unit Testing - (201901 x +

Not secure | pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/Vitamin/C/

Apps Important ISC / HCI Computer Extra Shop Fun to check WEB-COMICS SUNY Oswego Yahoo Log In to Canvas Google Drive

Vitamin Project

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An average man over 18 : 90 IUs.

Foods with this Vitamin

Vegetables

- Green Bell Pepper
- Cabbage
- Potato

Fruits

- Mango
- Orange
- [Tomato](#)

Example: Tomato



Browsers: BHI 504 - Vitamin-19, Vitamin-19 Project - Tomato, Week 12 - Unit Testing - (201901)

Address bar: Not secure | pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/Food/Fruit/tomato.html

Navigation: Apps, Important ISC / HCI, Computer Extra, Shop, Fun to check, WEB-COMICS, SUNY Oswego, Yahoo, Log In to Canvas, Google Drive

Vitamin Project

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

Tomato

Usually bright red when ripped (depending on the type), tomatoes are good for strengthening the immune system and reduces the risk of cataracts and other eye problems. Reduces the risks for heart disease, strokes, and select cancers.
Cooked and processed tomatoes (canned, paste) are still beneficial.

Vitamins and Nutritional Content (per 100 G):

- Protein (1 g)
- Fiber (1 g)
- [Vitamin A](#)
- [Vitamin C](#) (17 g)
- Vitamin E (1.2mg)
- Potassium (256 mg)
- Calcium (7 mg)
- Magnesium (7 mg)

Vitamin-19 Project 2019

Example: Carrot



Browsers: BHI 504 - Vitamin-19, Vitamin-19 Project - Carrot, Week 12 - Unit Testing - (20190)

Address bar: Not secure | pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/Food/Vegetable/carrot.html

Navigation: Apps, Important ISC / HCI, Computer Extra, Shop, Fun to check, WEB-COMICS, SUNY Oswego, Yahoo, Log In to Canvas, Google Drive

Vitamin Project

[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

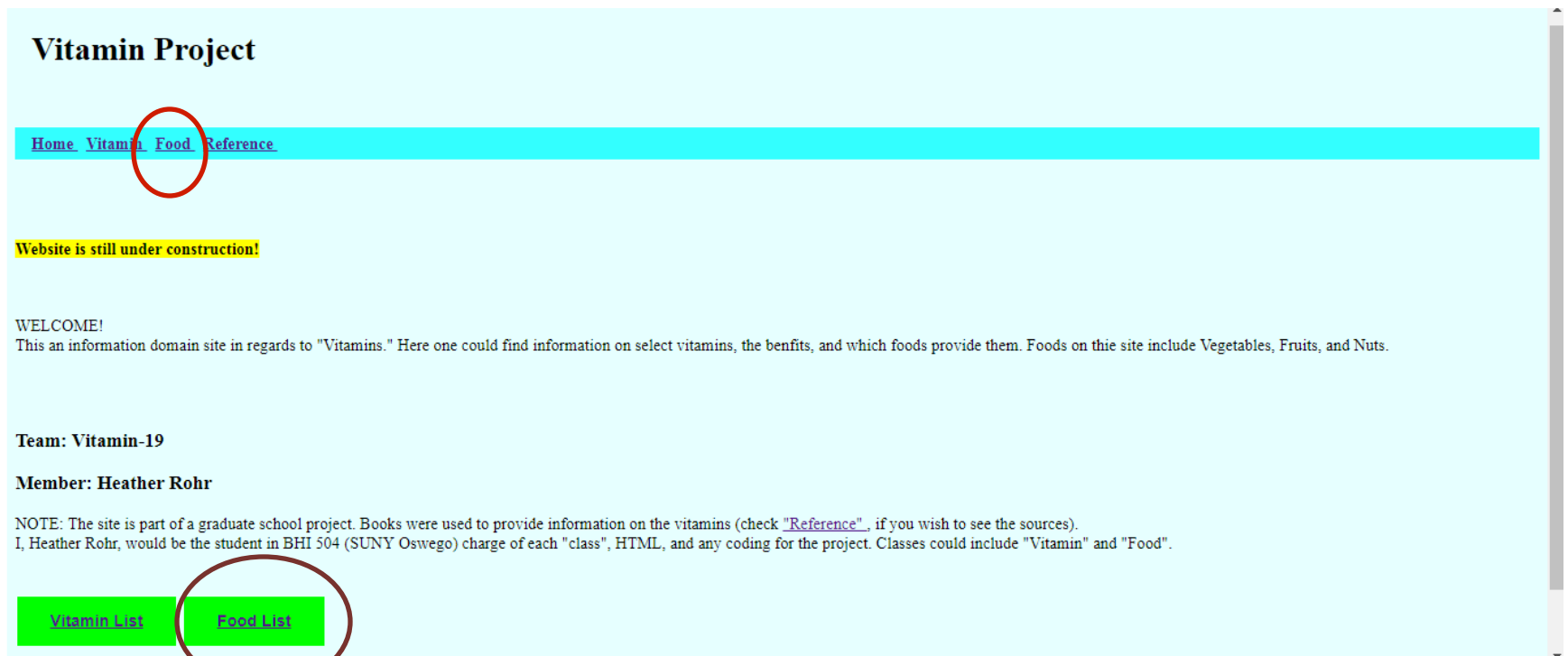
Carrot

Bright orange colored root vegetables. Carrots are good for your eyesight and reduces the chance of a heart attack. Good for decreasing the chance for cardiovascular disease (blood clots, heart issues), possible prevention for glaucoma (which damages the nerve vital for vision), and a possible reduction to developing prostate cancer. Vital for strong teeth, hair, and bones, carrots can help reduce blood cholesterol.

Vitamins and Nutritional Content (per 100 G):

- Protein (1.2 g)
- Fiber (3.6 g)
- [Vitamin A](#) (21,383 IU)
- [Vitamin B6](#) (24.3 mg)
- [Vitamin C](#) (7.6 mg)
- Vitamin K (16.9 mcg)
- Alpha-carotene (44,451 mcg)
- Beta-carotene (10,605 mcg)
- Betaine (0.5 mg)
- Calcium (25 mg)
- Choline (12 mg)
- Lutein (328 mcg)
- Lycopene (1.3 mcg)
- Manganese (0.2 mg)
- Omega-3 fatty acids (3 mg)
- Potassium (410 mg)

Main Page (let's look at the vitamin list)



Vitamin Project

[Home](#) [Vitamins](#) [Food](#) [Reference](#)

Website is still under construction!

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Member: Heather Rohr

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[Vitamin List](#) [Food List](#)

Food Selection Buttons



The screenshot shows a web browser with three tabs: 'BHI 504 - Vitamin-19', 'Vitamin-19 Project - FOOD', and 'Week 12 - Unit Testing - (20190...)'. The address bar shows the URL 'pi.cs.oswego.edu/~hrhr/coursework/BHI504/Vitamin-19Project/Food/'. The browser's toolbar includes various utility icons and a search bar. Below the browser, the page content is displayed on a light blue background. At the top, the text 'Vitamin Project' is shown in a bold, black serif font. A horizontal cyan bar contains the navigation links 'Home', 'Vitamin', 'Food', and 'Reference'. Below this bar, a yellow warning box states 'Website is still under construction!'. The main heading 'FOOD SELECTION' is followed by three colored buttons: a green 'Vegetable' button, a red 'Fruit' button, and an orange 'Nut' button. At the bottom left of the page, the text 'Vitamin-19 Project 2019' is visible.

Screenshot of the Vegetable List

The screenshot shows a web browser window with three tabs: 'BHI 504 - Vitamin-19', 'Vitamin-19 Project - Vegetables', and 'Week 12 - Unit Testing - (201901)'. The address bar shows the URL 'pi.cs.oswego.edu/~hrohr/coursework/BHI504/Vitamin-19Project/Food/Vegetable/'. The browser's toolbar includes navigation buttons, a search icon, and a star icon. Below the address bar, there are several bookmarks: 'Apps', 'Important ISC / HCI', 'Computer Extra', 'Shop', 'Fun to check', 'WEB-COMICS', 'SUNY Oswego', 'Yahoo', 'Log In to Canvas', and 'Google Drive'. The main content area has a light blue background. At the top left, the text 'Vitamin Project' is displayed in a bold, black serif font. Below this, a horizontal cyan bar contains the navigation links 'Home', 'Vitamin', 'Food', and 'Reference'. A yellow highlighted box contains the text 'Website is still under construction!'. Below this, the heading 'Vegetable List' is followed by a bulleted list of vegetables: Asparagus, Beets, Broccoli, Brussels Sprouts, Burdock, Cabbage, Carrot, Cauliflowers, Celeriac, Corn, Garlic, Green Beans, Horseradish, Kale, Lentil, Lettuce, and Mushrooms (*fungi).

Vitamin Project

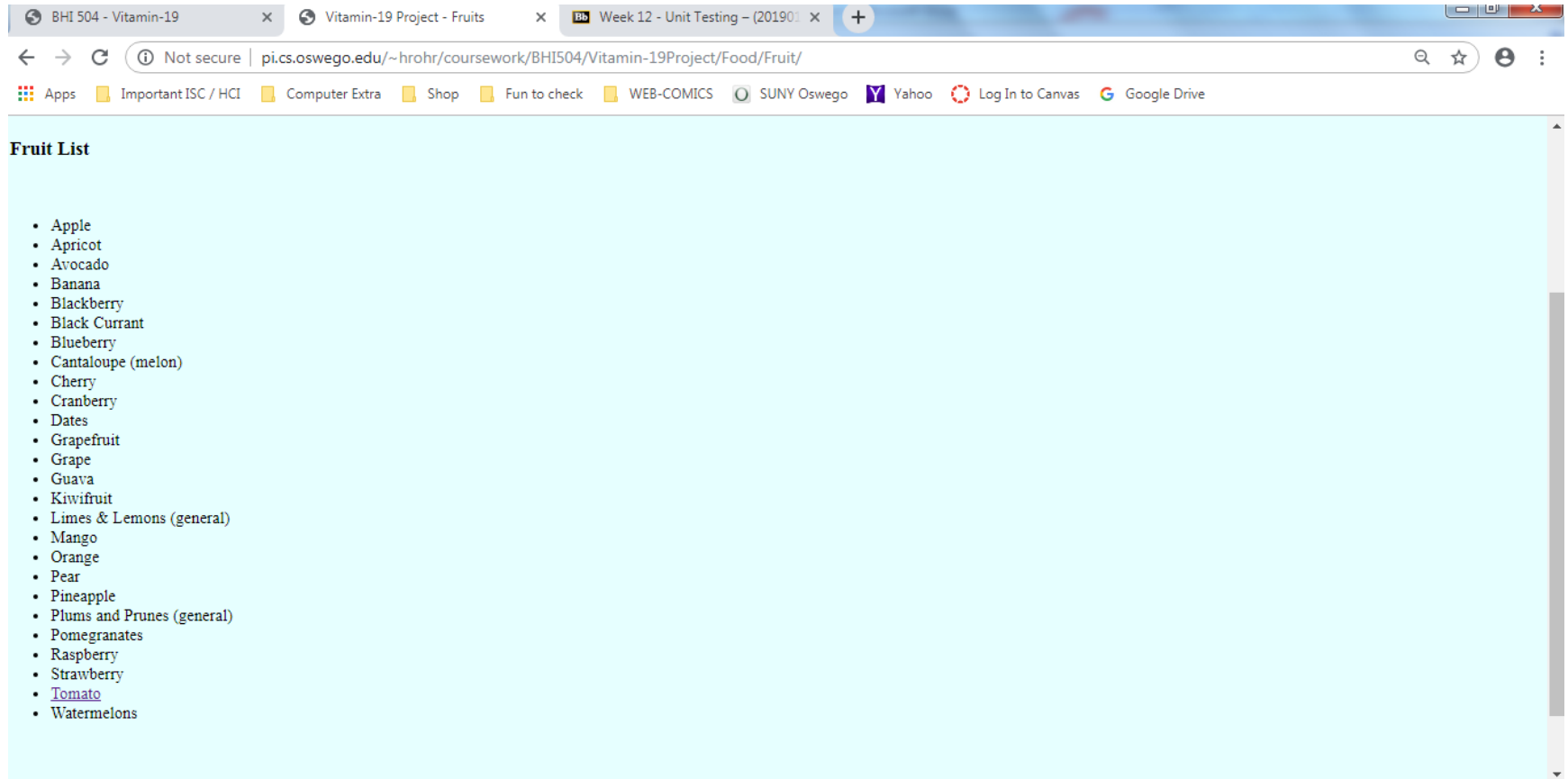
[Home](#) [Vitamin](#) [Food](#) [Reference](#)

Website is still under construction!

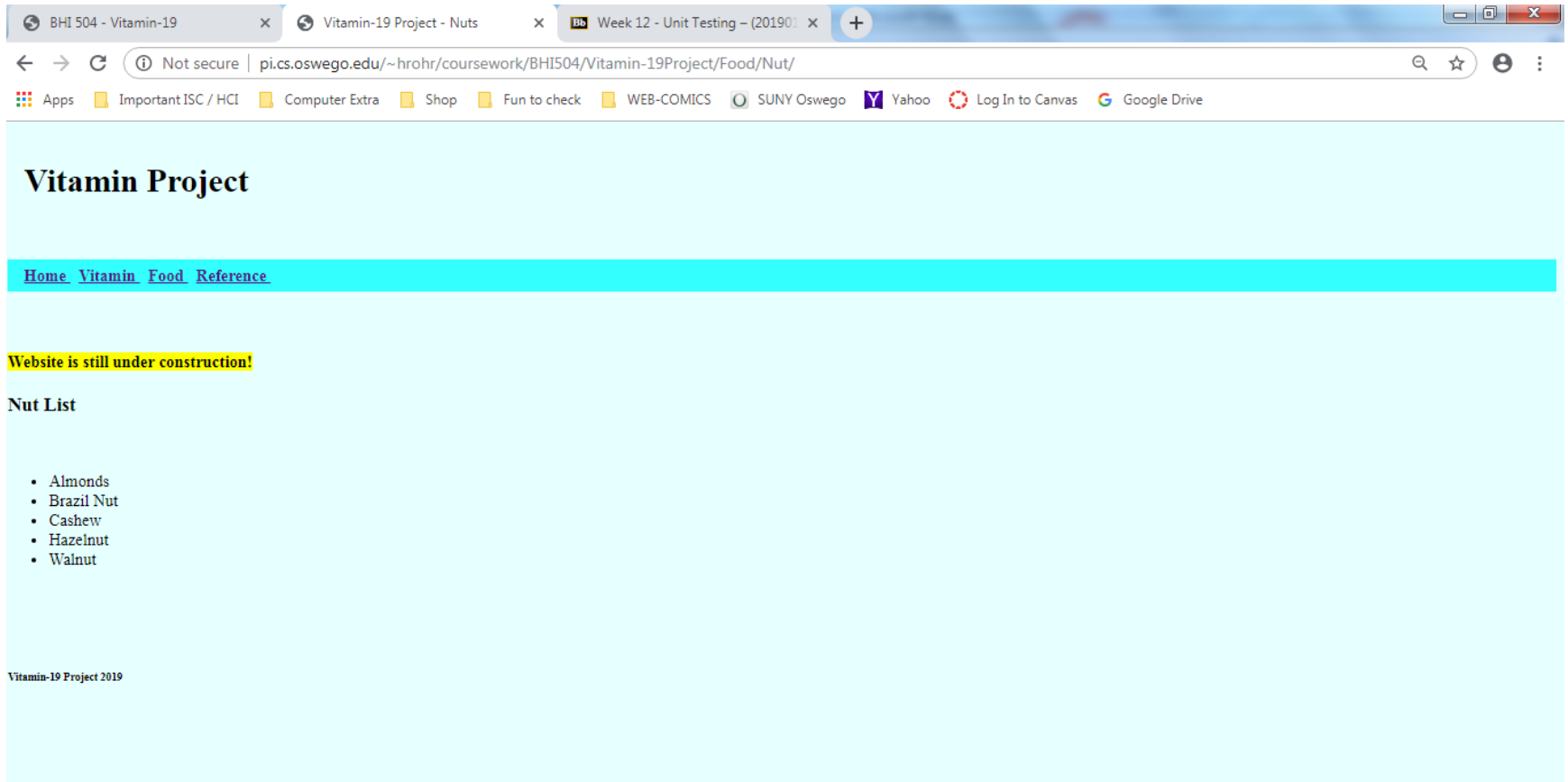
Vegetable List

- Asparagus
- Beets
- Broccoli
- Brussels Sprouts
- Burdock
- Cabbage
- [Carrot](#)
- Cauliflowers
- Celeriac
- Corn
- Garlic
- Green Beans
- Horseradish
- Kale
- Lentil
- Lettuce
- Mushrooms (*fungi)

Screenshot of the Fruit List



Screenshot of the Nut List



Reflections

- More research of the subject would have been a bit helpful prior to building the rough drafts and diagrams
- The final results could have represented the imagined design a little better
- It could have been more simple to use Python or NetBeans to display basic information
 - However, the approach would have been different for both the user and the builder
 - I also was also concerned with how well the program would have successfully ran during the time period

Questions?

- For the students in BHI 504
 - You can ask questions or leave comments on our discussions board on “Blackboard.”

Some References

- Russel, L., Layton, L., Vaugh, S., Alberti, C. (2017). *The Vitamins & Minerals Bible: Miracle foods to boost your health*. An Hachette UK Company.
- Pedersen, Stephanie. (2017). *ROOTS: The Complete Guide to the UNDERGROUND SUPERFOOD*. Sterling New York.
- Fernstrom, M. PhD CNS & Fernstrom, J. PhD. (2017). *Don't Eat This If You're Taking That: The Hidden Risks of Mixing Food and Medicine*. AARP Real Possibilities.Skyhorse Publishing.
- W3School.com
- Lucidchart. (2018 Aug).*How to Make a UML Sequence Diagram* (video). <https://www.youtube.com/watch?v=pCK6prSq8aw>
- Lucidchart website -<https://www.lucidchart.com/users/register/free>
- Tallyfy website- <https://tallyfy.com/>
- [IxD Online: UCSD & Coursera](#) (April 2016). *Lecture 4.2 Design Heuristics (1/3)*. Retrieved from YouTube and Blackboard(BHI 504).
- Pixabay.com (picture for powerpoint)

Thank You



Heather Rohr 2019, BHI 504