Technical University of Moldova

Faculty of Computers, Informatics, and Microelectronics

Department of Software Engineering and Automation

Web Programming

Laboratory work #1

Learn CSS and HTML

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1 Task

For this laboratory work, I had to create a demo of a landing page for a groceries store, following these steps:

1. Download the design as PSD file from Freepik [1];
2. Extract images as JPG files using.
3. Copy ‘index.html‘, ‘reset.css‘ and ‘style.css‘ to your repo;
4. Update ‘index.html‘ and ‘style.css‘, so that the page looks similar to the design from PSD file.

From the mentioned PSD file, I had to develop the following sections:

- Groceries. On the go;
- Locally sourced block;
- Made simple;
- FAQ.

Also, I implemented the bonus task, making the page mobile responsive.

2 Results

As is specified by the title of this laboratory work, I developed the layout using HTML for structuring it and CSS for styling.

I used flex-boxes for creating the layout because it provides an easy and flexible space distribution between items in an interface and powerful alignment capabilities within a container while also being responsive [2].

The results of the layout development can be seen in the figures below, starting with Figure 1.

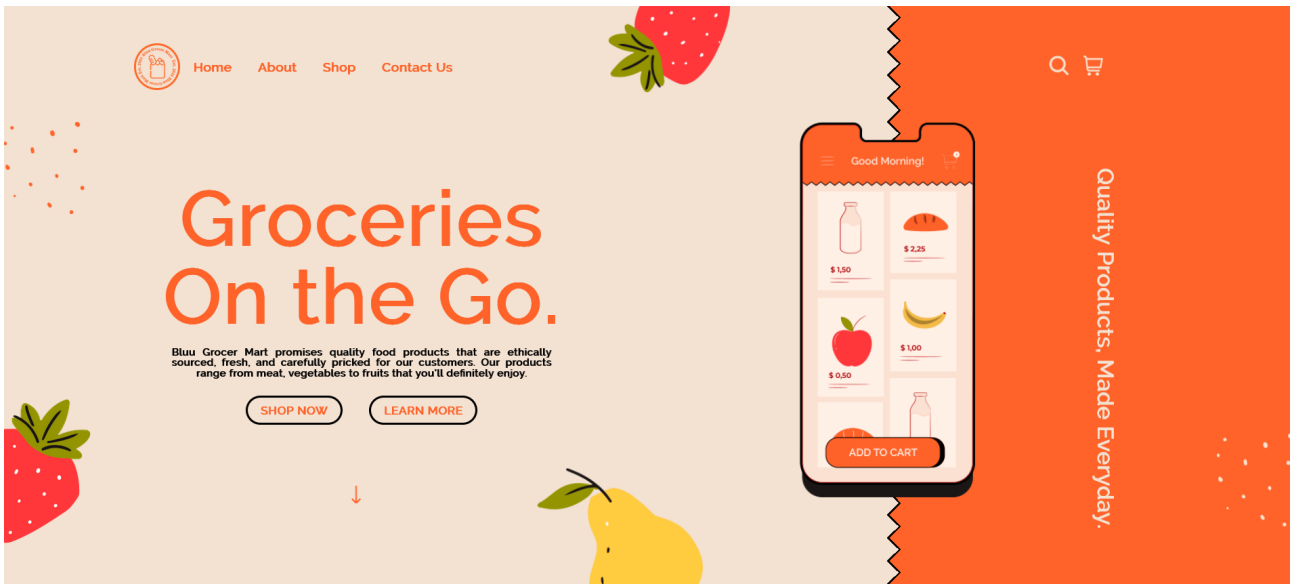

Figure 1: Groceries On the Go Section.

The figure from above illustrates the desktop version of Groceries On the Go layout.

The Figure 2 shows the desktop version of the Locally Source Product section layout.

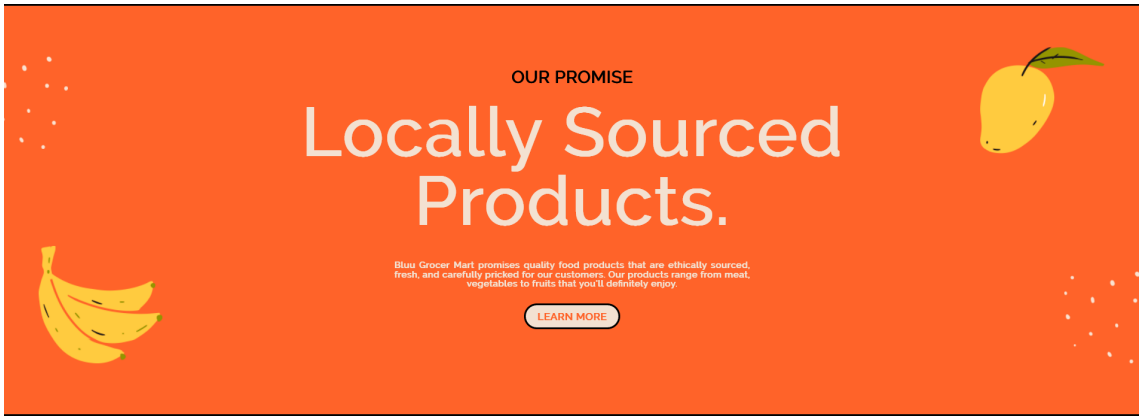

Figure 2: Locally Source Product Section.

The Figure 3 depicts the desktop version of the Made Simple section.

Figure 3: Made Simple Section.

The Figure 4 pictures the desktop version of the FAQs section layout.

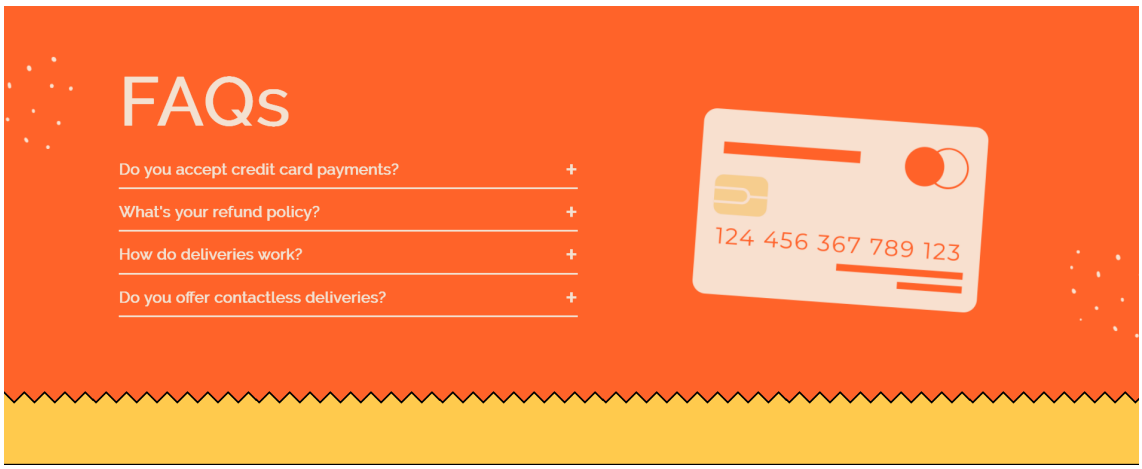

Figure 4: FAQs Section.

Also, I tried to adapt design to mobile devices, the outcome can be seen in the figures listed below.

Figure 5 shows the mobile adaptation for the first two sections, Groceries On the Go and Locally Sourced Products.

Figure 5: Mobile adapted layout for Groceries On the Go and Locally Sourced Products sections

And below in Figure 6 are shown the last two sections, Made Simple and FAQs.

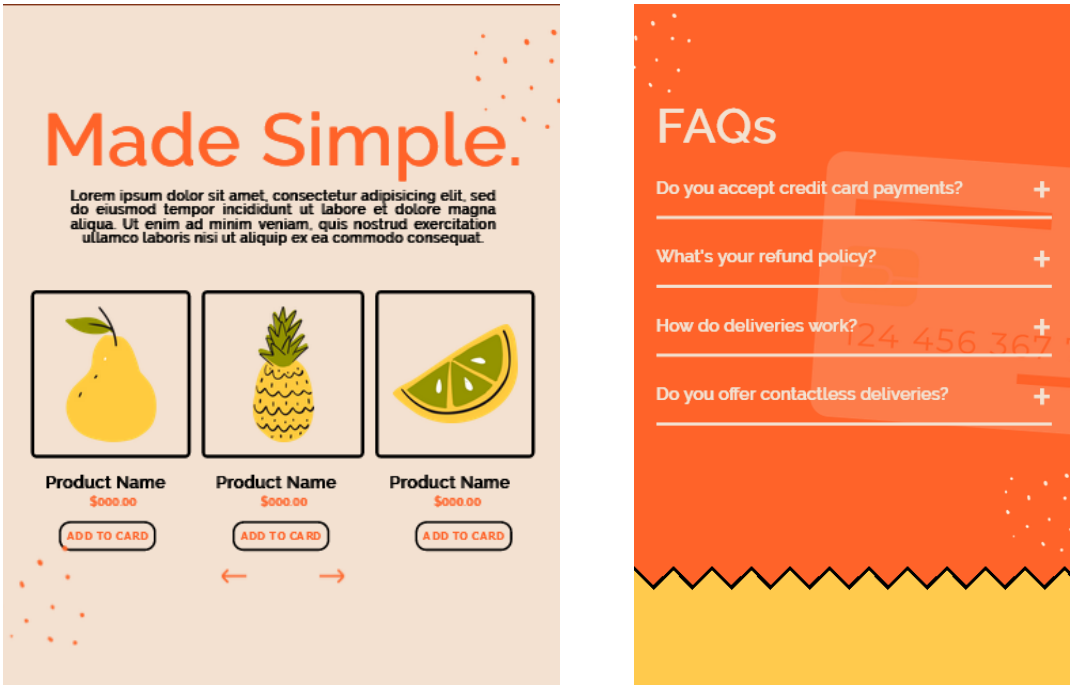

Figure 6: Mobile adapted layout for Made Simple and FAQs sections

Next I will proceed with some project structure explanations and code examples. The whole code can be seen in my github repository [7].

For convenience, I structured each page in div containers where were putted the needed elements such as images or other dives responsible for keeping a set of elements.

Here is one main css file named *style.css* and three others for mobile, medium and large sized screens to adapt the layout to different devices.

To avoid repetitive code as much as possible in CSS, I combined selectors of different elements that have the same characteristics (declarations), such an example is shown in Listing 1.

```
.section1 .zigzag1:before,
.section1 .zigzag1:after,
.section4 .zigzag2:before,
.section4 .zigzag2:after {
    content: " ";
    width: 100%;
    bottom: 0;
    position: absolute;
}
```

Listing 1: Combine selectors of elements with the same style.

As for the characteristics that are different for each element, or couldn't be used outside their declaration block, they will be set separately. As shown in the Listing 2.

```
.section1 .zigzag1:before {
    background: linear-gradient(315deg, black 2.3vh, transparent 0),
↪   linear-gradient(225deg, black 2.3vh, transparent 0);
    background-repeat: repeat-y;
    background-size: 4vh 4vh;
    top: 0;
    right: 3vh;
}
                                ...
.section4 .zigzag2:before {
    background: linear-gradient(-45deg, #000 2.3vh, transparent 0),
↪   linear-gradient(45deg, #000 2.3vh, transparent 0);
    background-repeat: repeat-x;
    background-size: 4vh 4vh;
    top: -3vh;
    right: 0;
}
```

Listing 2: Setting the characteristics separatedly from the combined block.

Above is shown a part of code for composing the zigzag using *before* and *after* selectors together with *linear-gradient*, *background-repeat* to create the zigzag pattern, that repeats on axis x or y, the implementation took inspiration from a stack overflow response. [3] [4] [5] [6]

3 Conclusion

For this laboratory work, I was tasked with creating a demo of a landing page for a groceries store using HTML and CSS. Throughout the development process, I learned several valuable lessons.

Firstly, I gained a better understanding of HTML and CSS, including the proper usage of different HTML tags [8] and the use of CSS declarations [9] to style elements on the page.

Secondly, I also learned the importance of mobile responsiveness in web design. I made sure to use CSS media queries [10] to adjust the layout and style of the page for different screen sizes, ensuring that the page looked fine on both desktop and mobile devices.

In general, this laboratory work was a good opportunity to put my HTML and CSS skills into practice. I am confident that the knowledge and skills gained during this project will be beneficial.

References

[1] Grocery delivery service web template, *https://www.freepik.com/free-psd/grocery-delivery-service-web-template_17734553.htm* Accessed on February 5, 2023.

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[3] CSS ::before Selector, *https://www.w3schools.com/cssref/sel_after.php* Accessed on February 18, 2023.

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[6] How can i do this type zigzag with css and html, *https://stackoverflow.com/questions/34130383/how-can-i-do-this-type-zigzag-with-css-and-html* Accessed on February 17, 2023.

[7] u-mad-mary /WP_Labs (private - please accept the invite), *https://github.com/u-mad-mary/WP_Labs/tree/main/Lab1* Accessed on February 17, 2023.

[8] HTML Tags Ordered Alphabetically, *https://www.w3schools.com/TAGS/default.asp* Accessed on February 17, 2023.

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