

1. Introduction

The project background will be to design a website targeted towards smart devices which have small display screens. The purpose of this specific project will be to find out how existing website can be compatible with compact, portable smart devices and its potential on how far this technology can advance towards the future of this world.

In addition, the focus of the project is to design and produce a prototype layout for a smart phone market business that will allow smart phone users to view the specific website on the Desktop PCs and on Smart Phone devices at the same time without any kind of problems.

2. Aim & Objectives

Aim:

To design a simple mobile user interface website which meets the requirements for a smart phone market business.

Objectives:

- ◆ To create an interface design review discussing the literature of user experience.
- ◆ To produce a project timeline and start creating the design elements using adaptive methods and user input.
- ◆ To create a Back-End Database that will connect and interact with the Front-End Design.
- ◆ To create and complete the prototype design within the given time.
- ◆ To perform and analyse user testing / research as this will find the elements that is needed towards the design interface.

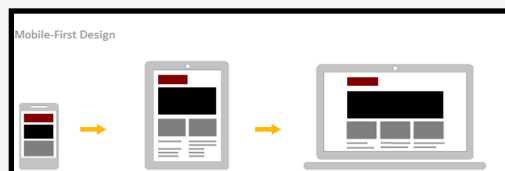


Image [1]

3. Design & Implementation

Smart phones have been at the frontline of the computer world during the last ten years. The web has evolved into a mobile-first economy, with mobile devices accounting for almost half of all website traffic. Because of the increasing use of smart devices to access the internet, new growth methodologies such as mobile-first design, that promotes mobile-friendly web design, have emerged. [1]

The developer would implement a framework of the website to show what type of content will be placed and where it will be placed on website, then, develop the code using the language of HTML, CSS, JavaScript, jQuery, Bootstrap and PHP into the project website.

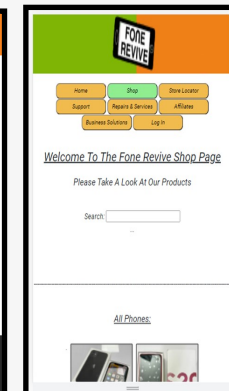


Image [2]

Framework



Website



4. User Testing Part 1

User testing will define how the user will be able to test various elements towards the website such as testing if the website loads up, does the images displays, if the buttons function the website, does the hyperlinks operate etc. For this user testing process, there will be two different groups as the first group will be testing the website on a PC and the other group will be testing the website on a smart device. Group A will test all of the objectives by using PC s while Group B will use Smart Phones. The results from both tables shows that each user was able to complete all of the objectives without any issues using both PC and Smart Device in under 10 minutes.

User	Age Group	Type Of Device	Tasks Completed	Tasks Completed, Not Completed	Time Taken (MM:SS)
User 1	21-30	Desktop	All	N/A	04:35
User 2	31-40	Desktop	All	N/A	05:20
User 3	31-40	Desktop	All	N/A	05:05
User 4	41-50	Laptop	All	N/A	05:50
User 5	18-20	Laptop	All	N/A	03:45
User 6	51+	Laptop	All	N/A	06:15
User 7	51+	Desktop	All	N/A	06:21
User 8	31-40	Laptop	All	N/A	05:30
User 9	41-50	Desktop	All	N/A	05:40
User 10	41-50	Desktop	All	N/A	05:10

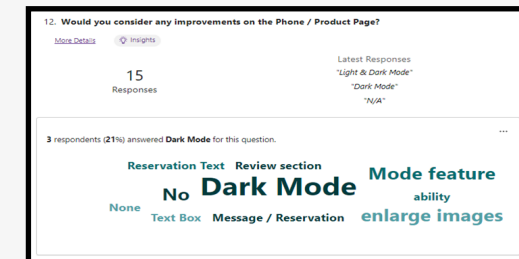
User	Age Group	Type Of Device	Tasks Completed	Tasks Completed, Not Completed	Time Taken (MM:SS)
User 1	18-20	iOS	All	N/A	07:25
User 2	21-30	Android	All	N/A	07:40
User 3	31-40	Android	All	N/A	07:05
User 4	31-40	iOS	All	N/A	07:50
User 5	51+	iOS	All	N/A	08:45
User 6	41-50	iOS	All	N/A	08:15
User 7	21-30	Android	All	N/A	07:03
User 8	51+	Android	All	N/A	09:00
User 9	31-40	iOS	All	N/A	08:10
User 10	41-50	Android	All	N/A	08:25

8. References

- [1] J. Unadkat, "Mobile First Design: What It Is and How to Implement It," 11 March 2021. [Online]. Available: <https://www.browstack.com/guide/how-to-implement-mobile-first-design>. [Accessed 7 May 2022].
- [2] S. L., "Revindex Storefront 13 - HTML5, CSS3, JS, Bootstrap," 25 May 2018. [Online]. Available: <https://www.revindex.com/Support/Forum/aft/6890>. [Accessed 10 May 2022].

5. User Testing Part 2

Most of the target audience for this project would like to add a Dark Mode as an improvement feature again on a future version of the website as Dark Mode is a very popular and trendy feature that is used in multiple websites and applications.



6. Conclusion

In conclusion, various mobile website design methodologies have been presented, including responsive website, which modifies webpage content depending on display resolution, and adaptive website design, which improves the website based on the device's abilities. Every technique has advantages and disadvantages in regards of price and user experience, that may be considered together with organisational aspects when choosing a mobile first design method. Web development keeps evolving and improving in design, thus the web developer must keep up with it.

7. Further Research

Bootstrap was used for user-side programming and PHP for server-side programming to develop an interactive website design. The file ending of a Bootstrap file is.html, while PHP is .php.. Bootstrap and PHP may both be used to create interactive website, which offers it a significant advantage. MYSQL and phpMyAdmin, a server tool, were also used to successfully maintain the database and interact with the website. WampServer software's latest edition of Apache was also used, and SQL is being implemented to modify the databases as well.