



GUI II PROJECT PROPOSAL

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COMP 4620

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Goal Statement

Flaire by invisaWear Technologies offers individuals the ability to contact emergency services with the touch of a button. invisaWearTechnologies.com is a website that allows customers to learn about the product, view product inventory, purchase a product, and create an account on the website to configure their device's settings.

Feature Descriptions

The end product will be structured as shown in Figure 1.

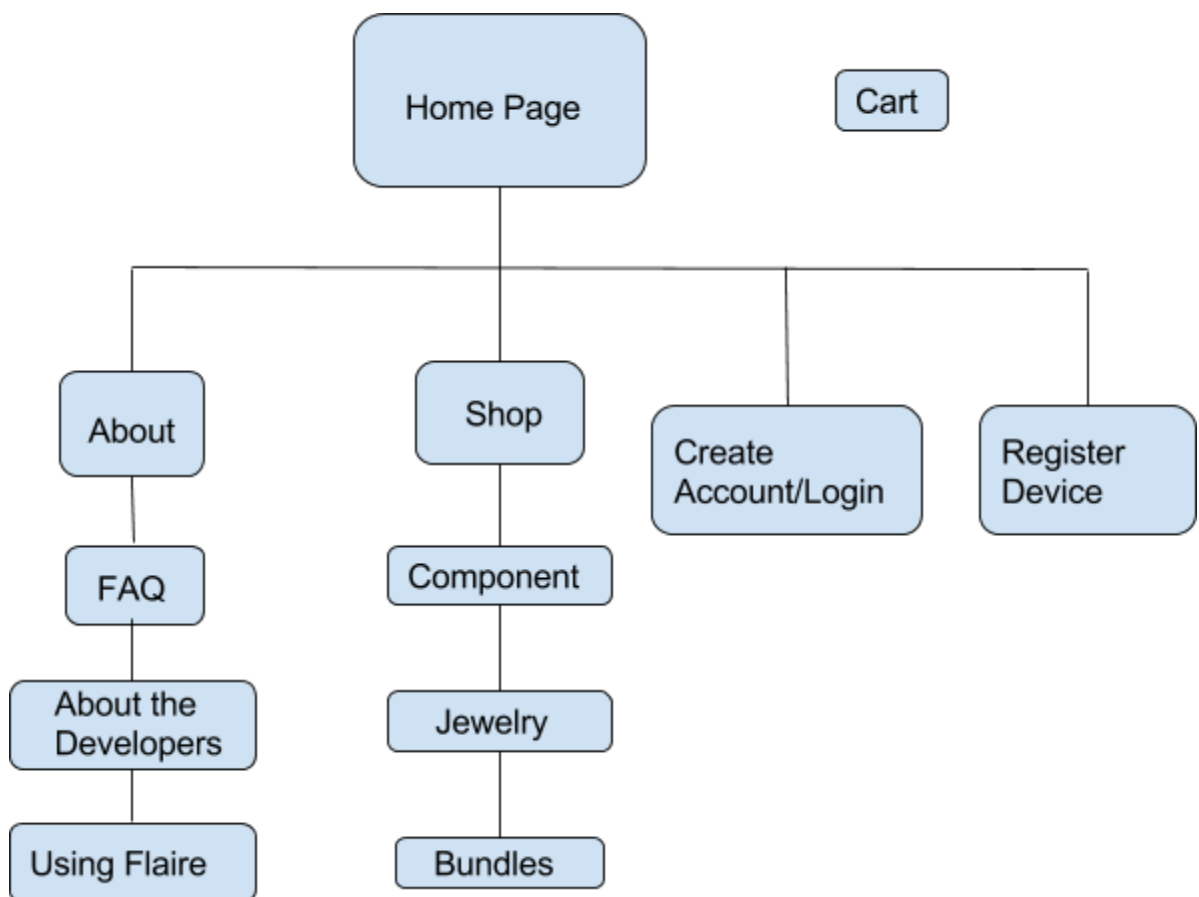


Figure 1. Website Structure.

The Home Page

The Home screen will display the company logo and product name. There will be slides that show sample product images. It will also provide links for users to create a new account or to log into their existing account.

The About tab will have information about the product, the developers, and FAQ. The Shop tab will provide options to purchase a device, jewelry, or a combination pack with a device already embedded in the jewelry. The Register Device tab will allow users to register their newly purchased devices. At the bottom of the home page, there will be information regarding how to contact the developers by email or phone. As shown in Figure 2, tabs will be in a menu bar at the top of the screen, which will remain in place as users scroll up or down.

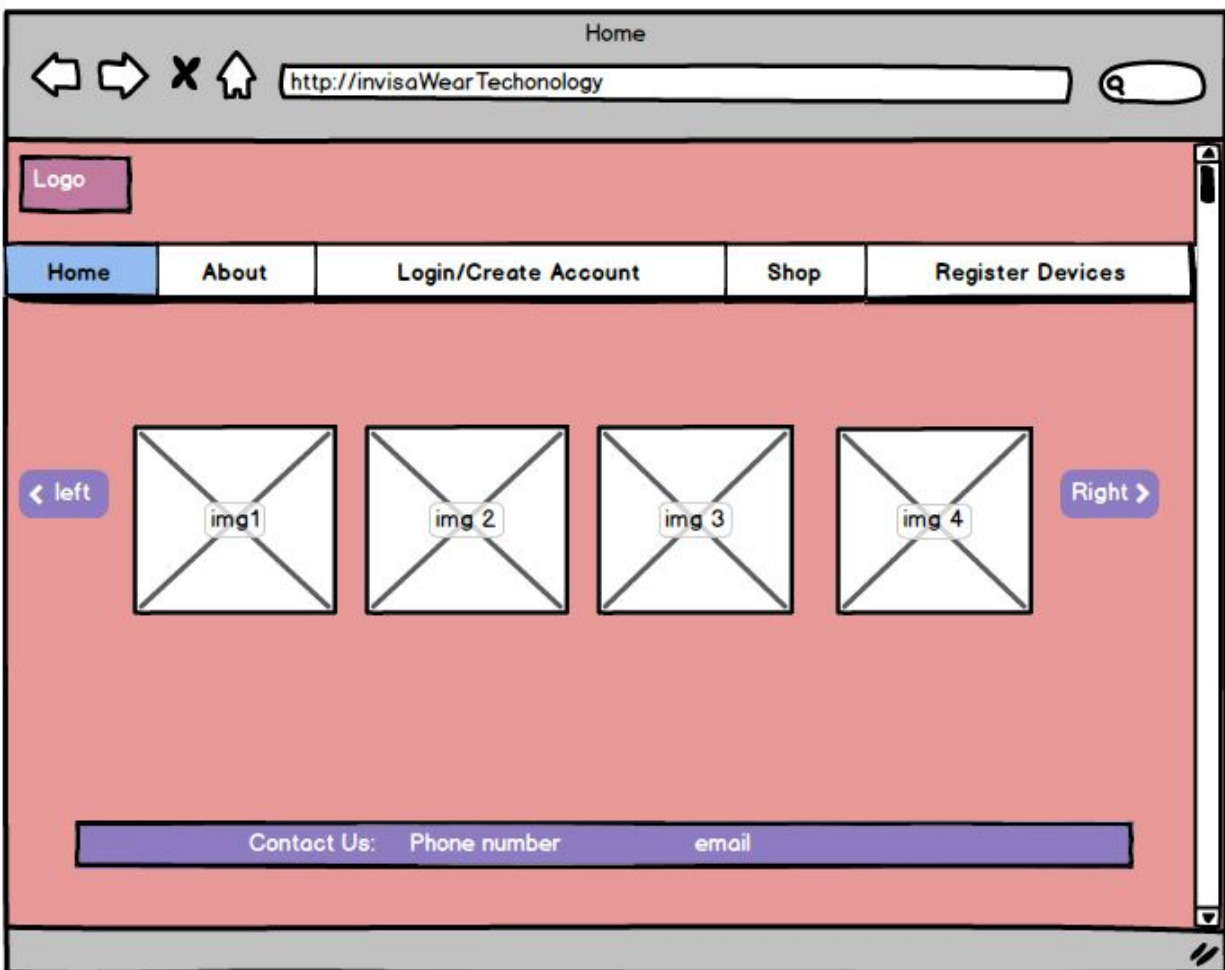


Figure 2. Home Page Layout.

About

The About page will contain information about the product (see Figure 3). There will be links to take users to a FAQs Page, an About the Developers page, and a page on how to set up their device. The About the Developers tab will have sections with pictures of the developers and a brief description about them(see Figure 4). There will be a link to take the user back to the About page. The link for the how to set up the devices will take users to a different page with multiple sections. One section will have information about how to put the device into the jewelry. Another will explain how to set up the Android application and device. The FAQ link will have questions about the different links on the side and the details about them (see Figure 5).

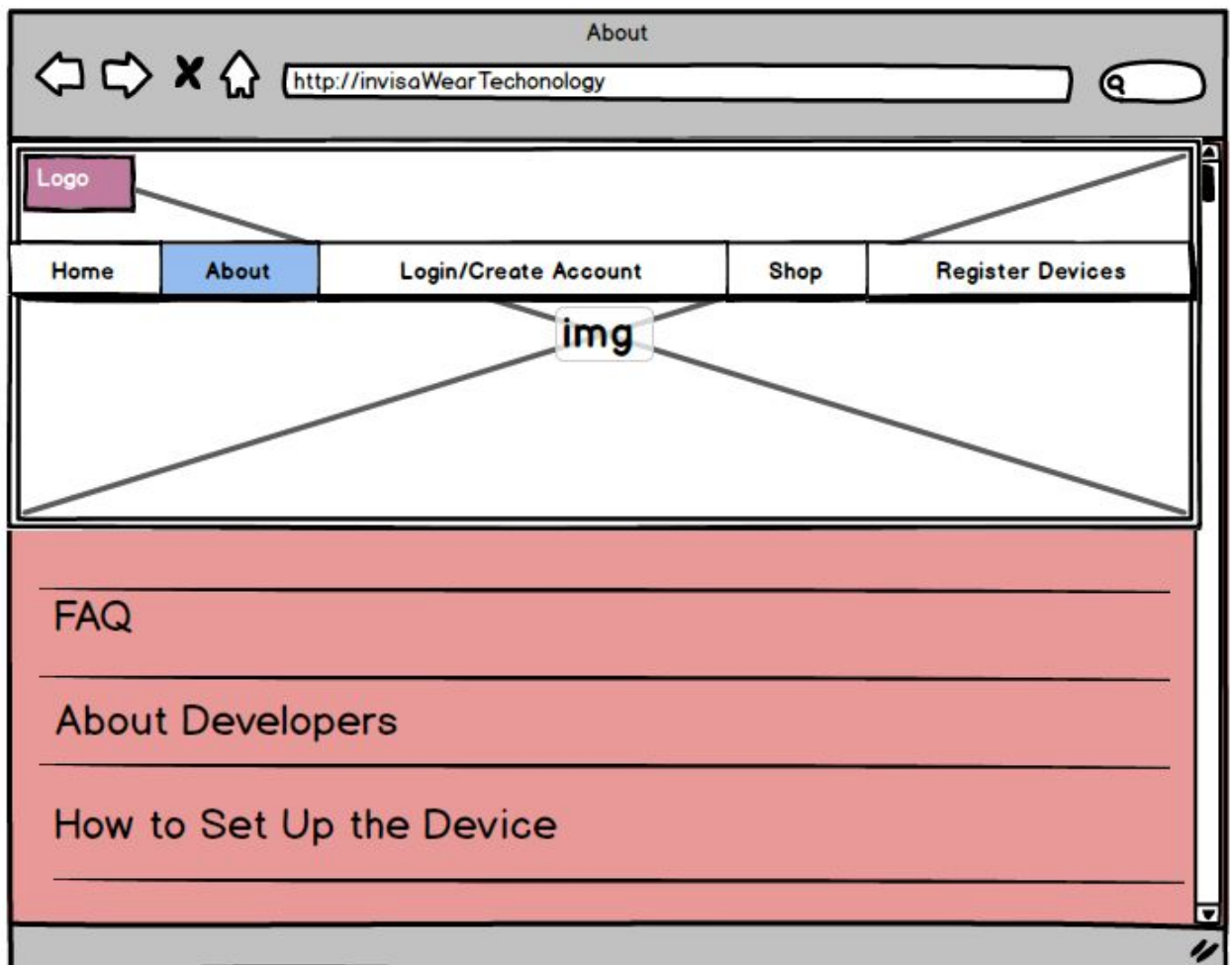


Figure 3. The About Page Layout.

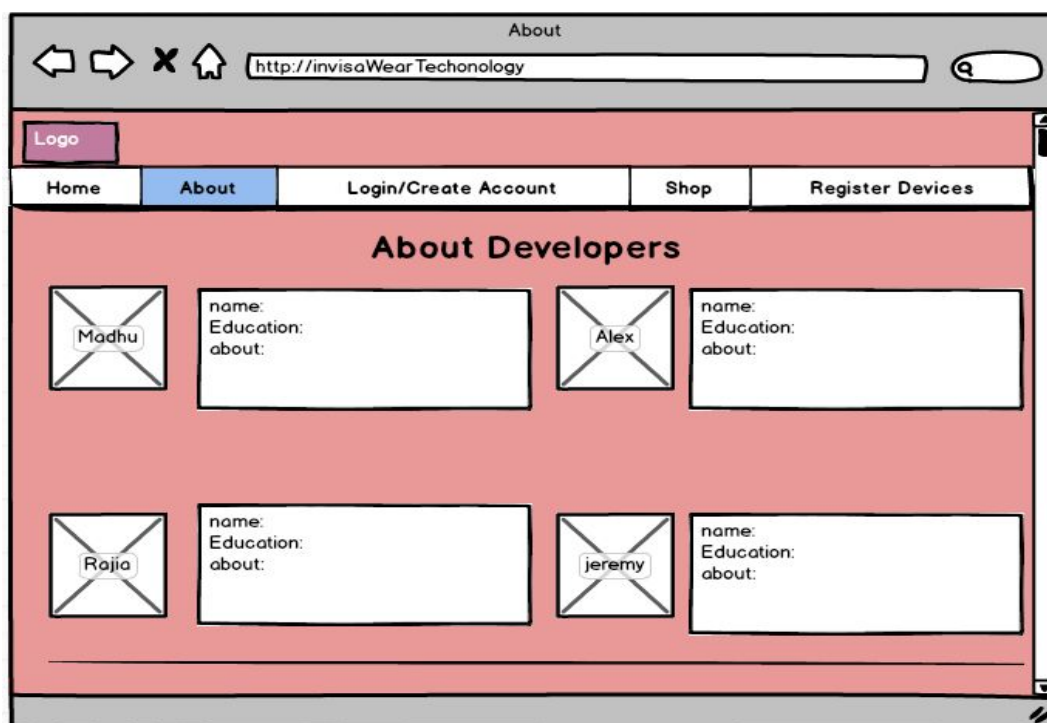


Figure 4. About Developers.

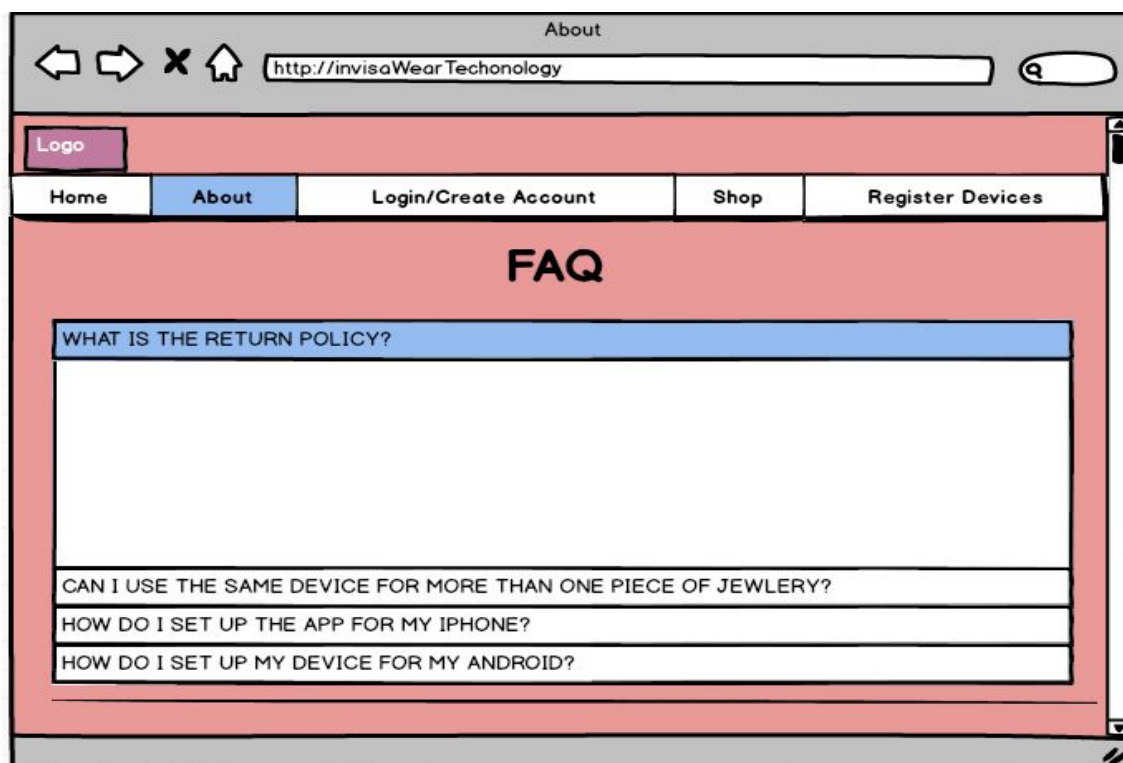


Figure 5. The FAQ Page Layout.

Shop

The Shop tab on the home page will be divided into three sections (see Figure 6). Each section will have an option to scroll through products with scroll buttons on the left and right. Each product will have its price listed below it. When users click on a product, they will be taken to another page, which will have the product zoomed in. Users can also choose the size and color with the drop down. There will also be an option to add to the cart. On the top right of each page there will be a cart symbol that can be clicked. This will take users to the Proceed to Checkout page.

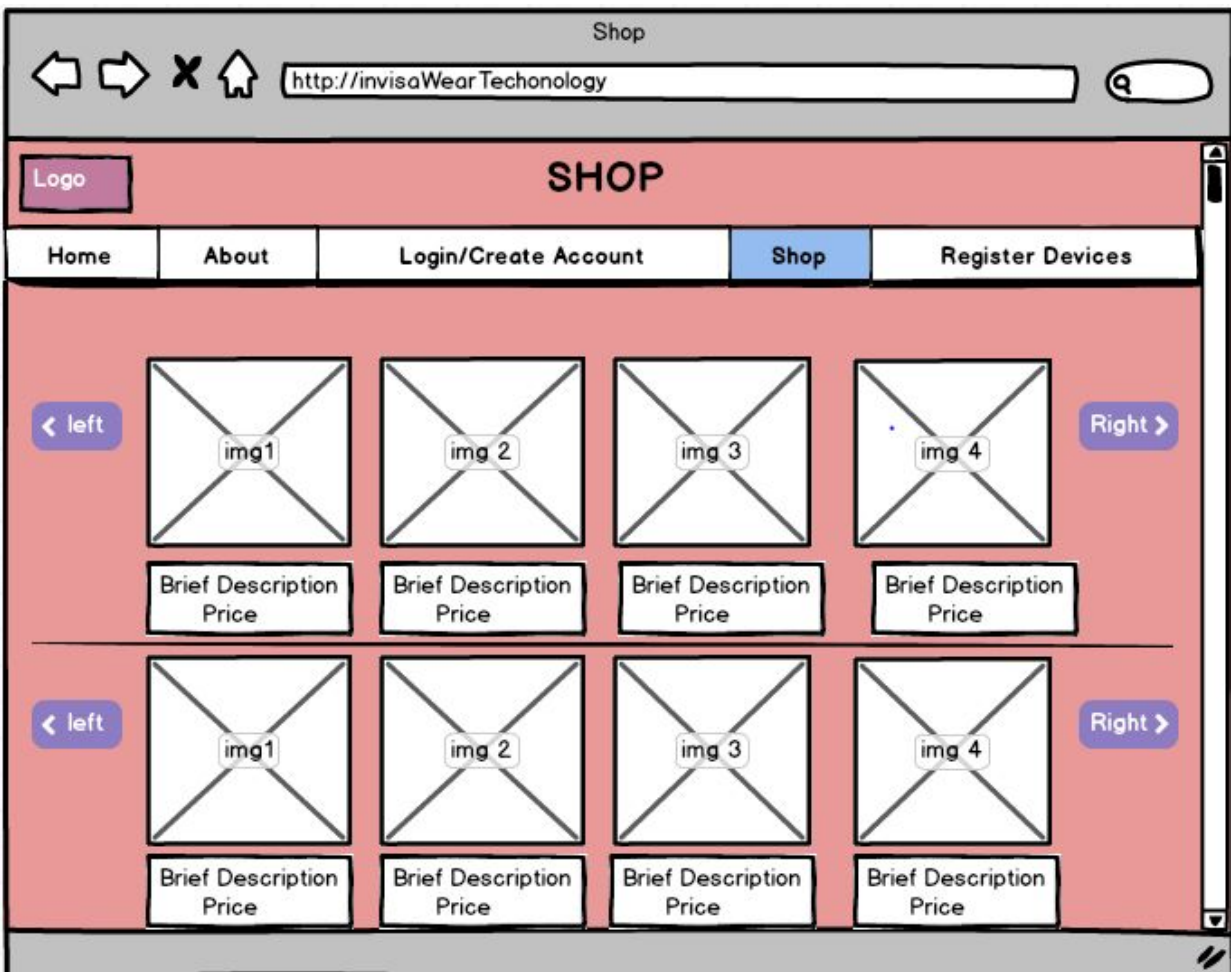
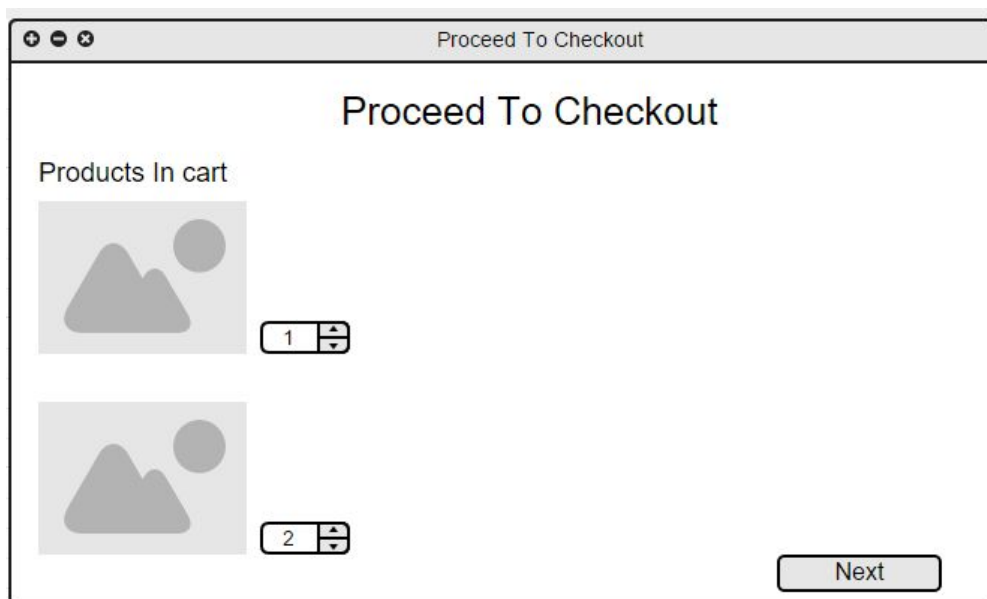


Figure 6. The Shop Page Layout.

On the Proceed to Checkout page users will see a listing of all the products in their cart. At the bottom they can click Next to enter their credit card information and address, after clicking the Order button the system will then say, “Thank you for purchasing an invisaWear product” (see Figures 7 and 8).



Proceed To Checkout

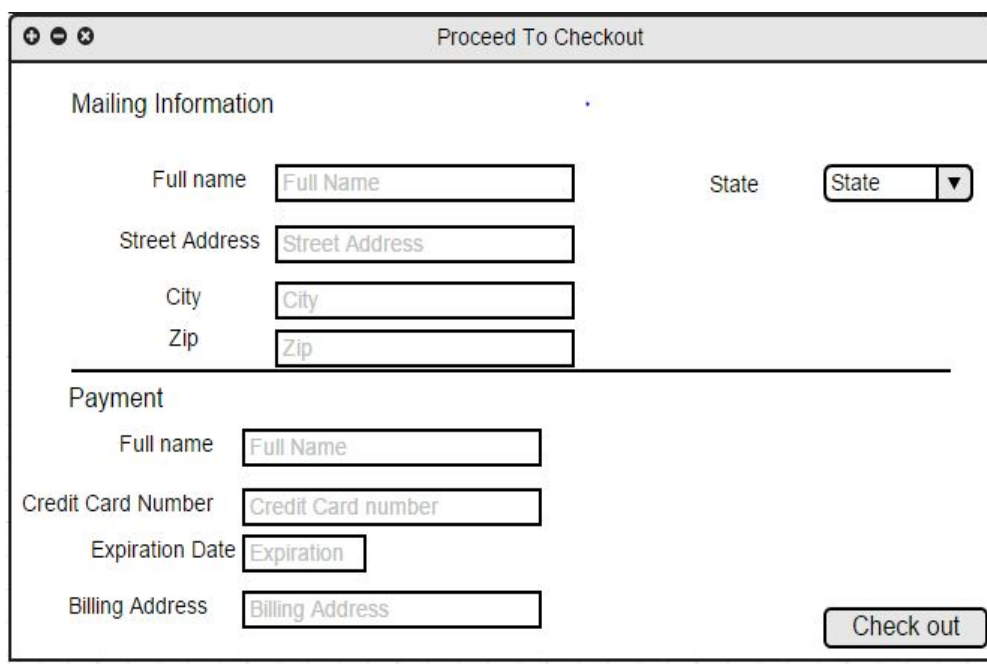
Products In cart

1

2

Next

Figure 7. A User's Cart.



Proceed To Checkout

Mailing Information

Full name Full Name State State

Street Address Street Address

City City

Zip Zip

Payment

Full name Full Name

Credit Card Number Credit Card number

Expiration Date Expiration

Billing Address Billing Address

Check out

Figure 8. Address and Credit Card Entry Form.

Login/Create Account

Users can get to this page from a link on the Home page. As shown in Figure 9, it will be divided into two parts. The left side will display a login form for users who already have an account, and the right will display a form for creating a new account. The create account form is where users will enter their name, email, username, and password. After entering all the required information on the form, users will be taken back to the home page. On the login form, users can enter their username and password into textboxes and submit. If the credentials are valid, they will be redirected to the home page and their username will show up on the top right.

Login		Create InvisaWear Account	
Username	<input type="text"/>	Full Name	<input type="text"/>
Password	<input type="password"/>	Email Address	<input type="text"/>
	<input type="button" value="Login"/>	Username	<input type="text"/>
		Password	<input type="password"/>
			<input type="button" value="Submit"/>

Figure 9. Login/Create Account Page.

Component Details

The Home page is the first component that users will view so it is essential that the page be built using appealing CSS and powerful JavaScript and JQuery. A soft color scheme along with unique Google fonts¹ will be used to capture users attention and to insure that the pages are not only visually appealing but also eloquent. Fonts similar to Arvo will be used to insure that all the information has an appealing style but is also readable. The company logo will be placed in the upper left hand corner of the screen. The tabs that are on the top of the page: Home, About, Login/Create Account, Shop, and Register Devices will use Angular JS² for the style and functionality.

An Auto-Playing Slideshow will be created to display images. The slideshow will be created using HTML, CSS and JQuery. An HTML wrapper will be used with div's as the slides. Each div will contain different img links. The slides will be absolutely positioned within the wrapper and will have a box-shadow. JQuery functions such as .fadeOut() and .fadeIn() will be used along with a timer so that images auto play on their own and animations run smoothly.³ Additional pictures will be placed under the slideshow with descriptions beside them. At the bottom of the page, there will be a bar displaying contact information.

The About page components are all UI. Pages will be built using HTML, CSS, and JavaScript. The jQuery Library⁴ will be used to allow users to smoothly navigate between the links on the page: FAQ, About Developers, How to Set Up the Device.

The Shop page allows users to view and add products to their cart. The page will be divided into three sections: devices, jewelry, and combination packs. Products will be displayed in a carousel in each section. Each product will have a photo and brief description below it. The Amazing Carousel jQuery Library⁵, will be used to allow users to cycle through different photos for each section. This library is an easy to use app that enables users to create circular, responsive jQuery carousels and jQuery image scrollers.

Clicking on an image in the carousel will take users to another page, which will have a larger image of the product. This page will also allow users to select the size and color using a basic bootstrap drop down⁶. Hovering over the picture with the cursor will enlarge the photo to show more detail. This will be implemented using jQuery Zoom⁷. This plugin enlarges images on

touch, click or mouseover. A simple HTML button will be displayed under the image and will add products to the cart when pressed.

On the top right corner of each page there will be a cart symbol. When users click on the cart, they will be directed to the Proceed to Checkout page. This page is used to manage the number of items in the cart. It will display a small image of each item in the cart along with a short description and quantity of the item. The total cost of all the items will be displayed at the bottom of the page. A counter will be used to manage how many items are in the cart. Session storage will be used to ensure that the total price and the counter stay consistent as users navigate between pages. A storage method (`sessionStorage.setItem(name, value)`) will be used to store key-value pairs⁸. The method will be called to update the values when items are placed or removed from the shopping cart.

The Login/Create Account page will allow users to either create a new account or sign into an existing one. Due to time constraints, the user login information will be hard-coded so that either any username and password combination is accepted or only a specific combination is valid. JavaScript regular expressions will be used to match user input to pre-programmed hard-coded values. The JQuery Validation Plugin⁹ will be used to ensure that user input is entered in the correct format. Passwords will have a minimum and maximum character limit. A rule will be created to validate that addresses begin with a number and are followed by a string (to indicate a house number and a street name). The plugin will also help ensure that users entered in all the necessary information.

The Register Device page will have HTML input boxes so that customers can type in their device ID to link it to their account. The Register Device form will be similar to the Create Account form. Regular expressions will be used in JavaScript to link devices to the user. The device ID will be hard-coded. JQuery Dialogs¹⁰ will be used to notify the user that their device was successfully registered and is ready for use.

1. **"Google Fonts."** *Google Fonts*. N.p., n.d. <https://www.google.com/fonts>. 02 Feb. 2016.

2. **"HTML Enhanced for Web Apps!"** AngularJS. <https://angularjs.org/>. 03 Feb. 2016.

3. **"Simple Auto-Playing Slideshow | CSS-Tricks."** *CSS-Tricks*. N.p., n.d. <https://css-tricks.com/snippets/jquery/simple-auto-playing-slideshow/>. 04 Feb. 2016.

4. **"JQuery."** JQuery. N.p., n.d. <https://jquery.com/>. 03 Feb. 2015.

5. **"Amazing Carousel."** *Amazing Carousel*. N.p., n.d. <https://amazingcarousel.com/examples/jquery-testimonial-slider-id14/>. 04 Feb. 2016.
6. **"Bootstrap Dropdowns."** *Bootstrap Dropdowns*. N.p., n.d. http://www.w3schools.com/bootstrap/bootstrap_dropdowns.asp. 04 Feb. 2016.
7. **"jQuery Zoom."** *jQuery Zoom*. N.p., n.d. <http://www.jacklmoore.com/zoom/> 04 Feb. 2016.
8. **"Window.sessionStorage."** *Mozilla Developer Network*. N.p., n.d. <https://developer.mozilla.org/en-US/docs/Web/API/Window/sessionStorage>. 04 Feb. 2016.
9. **"jQuery Validation Plugin."** *jQuery Validation Plugin*. N.p., n.d. <http://jqueryvalidation.org/>. 04 Feb. 2016.
10. **"Dialog."** *Dialog*. N.p., n.d. <https://jqueryui.com/dialog/>. 04 Feb. 2016.

User Descriptions

The target audience of invisaweartechnologies.com will be the company's customers. Currently invisawear technologies is targeting college students because they're part of a very desirable demographic that has yet to form unbreakable brand loyalties. If the founders of invisawear technologies can connect with college students, the business will have a chance to grow as these college students graduate, start careers, and begin families of their own. This will allow the company to develop brand loyalty and expand the market as time progresses. In the future, the device can be sold to companies where people tend to stay late at the office and feel uncomfortable as they're leaving, or at elementary/middle schools to parents who would like to ensure their child is safe walking home from school. In the meantime, the main customers of the site will be college students (both females and males). In the future the market will expand to adults and children.

Discussion of Issues

As with any project, various issues are bound to cause roadblocks for development, many of which will not be anticipated. However, there are some conditions that the developers anticipate running into.

The first issue is consistent among any project: time. Time will limit how much of the website will be able to be completed, how polished and styled it can be, and how many features can be added by the time the first version is to be released. On top of development deadlines, all members involved in the project are students with full course loads, leading very busy lives,

further limiting the time available for the project. In preparation for this factor, a plan will be made to help reasonably allocate the time available and to use it in a very efficient way.

The next issue is really a collection of possible problems that can be summarized as technical difficulties. The website will incorporate various types of programming languages that will be used in even more various ways. Many of these techniques will have to be learned for the first time or be refreshed before being implemented. Specific examples include jQuery validation for account registration, JavaScript to allow for slide shows of the product the website is promoting, JavaScript to provide website responsiveness on mobile devices, and possibly other jQuery and JavaScript libraries that will cause the website to look polished, feel responsive, and be functional.

Another issue revolves around the product the website is promoting. The website's purpose is to showcase the Flaire product. As a result, the website must accurately display and advertise the product as well as possible. Therefore, if Flaire undergoes any changes, the website must be updated to show this. Any unexpected product change will result in unexpected updates to the website. This, along with time restraints, could cause the website to show inaccurate information if the website cannot be updated promptly. In addition, any new versions of the product would also need to be displayed on the website. This means the website will have to be constantly updated and developed alongside the product to maintain information integrity.

Schedule

Goal	Date	Assignee
1. Proposal	2/4	Everyone
2. Set up GIT repository	2/6	Everyone
3. Set up environment	2/7	Everyone
4. Create navigation	2/8	Jeremy

bar		
5. Create a theme and color scheme for all the webpages to follow	2/12	Everyone
6. Take pictures of the products and pictures for the website	2/14	Rajia and Madhu
7. Setup skeleton of pages: <ul style="list-style-type: none"> • Create all pages without styling • Visual mock-ups of all pages 	3/1	Everyone
7.1 Setup skeleton of Home page	2/24	Rajia
7.2 Setup skeleton of About page	3/1	Rajia
7.3 Setup skeleton of FAQ page	2/21	Madhu
7.4 Setup skeleton of About the Developers page	2/25	Madhu
7.5 Setup skeleton of Setting Up Device page	3/1	Madhu
7.6 Setup skeleton of Shop page	2/24	Rajia
7.7 Setup skeleton of Product Details page	3/1	Jeremy
7.8 Setup skeleton of Create Account/Login page	2/19	Alex
7.9 Setup skeleton of Register Device page	2/22	Alex

7.10 Setup skeleton of Proceed to Checkout page	3/1	Alex
8. Implement Navigation between Pages and Links	3/5	Everyone
9. Implement JavaScript validations on all forms	3/12	Rajia and Madhu
10. Style validation	3/12	Alex
11. Implement picture slide for all pages that require it	3/19	Rajia
12. Dynamically change picture and price on product details page		Jeremy
13. Implement Checkout/ Store Items in Shopping Cart	3/26	Alex
14. Implement function to calculate shopping totals	4/2	Madhu
15. Hard code User Login	4/9	Madhu
16. Usability testing	4/14	Everyone
17. Final enhancements/product updates	4/20	Everyone
18. Final presentations	4/24	Everyone

Acceptability Criteria

Minimum Functionality for Release

- Customers will be able to:
 - Understand what the product is (Home page, About page) by reading descriptions and viewing pictures/diagrams on the Home page that illustrate products
 - Login to an existing account or create a new account
 - Register their products using unique product IDs and input personal information that will be helpful in case of emergency (i.e, name, gender, age, height, etc.)
 - View inventory, which is separated into sections based on what product types/combinations they want (i.e, bracelet by itself)
 - Add products to the shopping cart
 - Have their questions answered on a FAQ page
 - Find contact information for the developers

- Website will have:
 - An appealing color scheme that's not too "aggressive"
 - Links to most other pages on the Home page for easy navigation so that customers can have easy access to the other important pages all from a single page.
 - Detailed About, Contact, FAQ pages for customer convenience
 - Detailed descriptions about the products and accompanying pictures on the Home and Shop pages
 - The Shop page will have an easy-to-use navigation system and products will be intuitively placed with short descriptions and accompanying pictures

- Nice-to-have features that will be implemented if there's time

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- More advanced CSS/design?
- Features that will most likely not be implemented but that might influence the design
 - Login/signup/registration will be hardcoded but will still influence the design of the related pages (login text boxes to type in, etc.)

References

https://teaching.cs.uml.edu/~heines/91.462/91.462-2014-15s/462-assn/SampleProjectProposals-2014/Carcia-Soeltz_graded.pdf

<https://www.draw.io>

<http://salesmanagement.org/web/uploads/pdf/af4610022ea794e97eee259432519a92.pdf>

<https://www.smashingmagazine.com/2014/02/create-client-side-shopping-cart/>

Mock up of site flow

<https://www.draw.io/#G0Bw9jjlWfrm9lZUdWYlc0SV9HOE0>

From <<https://teaching.cs.uml.edu/~heines/91.462/91.462-2015-16s/462-lecs/lecture04.jsp>>