Software Requirements Specification for Ashlynn Glitz & Glitter Custom Boutique Website

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1. Introduction

1.1 Purpose

The purpose of this project is to construct a website that allows customers to easily browse and purchase from Ashlynn Glitz & Glitter Custom Boutique. The organization's primary purpose is to provide the opportunity for others to express their personality and style through custom products. They also aim to offer unique gifts. This product is being created to assist in the pursuit of creating an effortless experience between the customer and the business when ordering custom products. The website is to be created to emphasize these principles and ensure that customers have an opportunity to express their creativity and style.

The system to be created is an e-commerce website that would aid in the automation of ordering and displaying the products of the business in an organized manner. A sufficient system would allow for better marketing and smoother business operations. The project is specifically focused on expanding the marketing goals of Ashlynn Glitz & Glitter Custom Boutique. Specifically, how it is presented in the e-commerce industry.

1.2 Scope

Product Name

The product to be produced is the Ashlynn Glitz & Glitter Custom Boutique Website.

Overview

The Ashlynn Glitz & Glitter Custom Boutique Website will provide a method for customers to order and browse through custom products that have been created by the company. All products that have been created will be available to view on the website. These products may be ready-to-ship and can be ordered by the registered customer. Customers can also request for a product to be made given their design or make alterations to an existing design. The website serves as a method for customers to easily view and purchase the products of the company.

Goals

The website will be an e-commerce site with additional functionality to allow for an easy process for customizing products and viewing products that have been made by the company. The website will allow customers to order their products using several payment methods. The site will also allow customers to easily specify and design their custom products through different methods of UI. For example, customers will be able to select the size of the product through a drop-down menu and will be able to describe the color they would like through text entry.

In addition, customers will be able to view information regarding the business. They will be able to browse as a guest, create an account and log in, order products, and view past orders.

Operators/maintainers will be able to add products to the site. This includes images of recently designed products or ready to ship products that are available. They should be able to add products for sale, change the price of products, and remove products. The site should allow this subset of users to also display any specialty descriptions, such as sales, deals, or highlighting new products.

Amplifying life through creativity, the Ashlynn brand's mission is to always find joy in the creative scheme of life bringing a focus on branding, photography, design, and content creation while educating the future of marketing and media to discover their passion. Objectives include helping small businesses

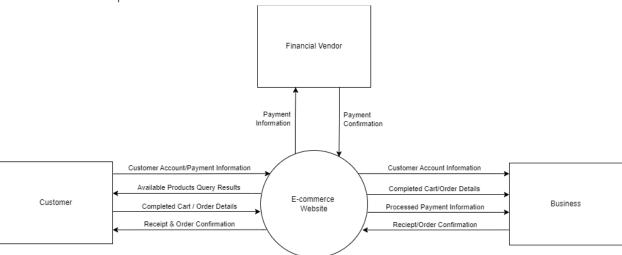
reach their marketing goals and allowing people to show off their personalities. Through the implementation of this site, the business goals of Ashlynn Glitz & Glitter Custom Boutique should be validated. For example, the creation of the website allows the company to market its business more easily as the site is readily available for anyone to use. Having a site that lists some of the key aspects and goals of the business is a great way to market a brand. The site itself can lead users to explore the other branches of the Ashlynn brand and this will bring more attention to the organization as a whole.

Out of Scope

This project is not concerned with actively marketing the site or the business. By association, creating a website does help market the business, but the main goal of this project is to provide a way of purchasing the products of the business. To continue, there have been discussions regarding a communication system that would be implemented into the site to allow for easier communication between the customers and the business/product creators. However, this is quite a large system when considering the software needed to implement the feature. For the current project, this system is out of scope for the initial release and other communication systems and processes should be used as a substitute for the time being.

1.3 Product Overview

1.3.1 Product Perspective



A context diagram is used to illustrate the interaction of a proposed system with external entities and its environments. It allows stakeholders to view some of the interactions that they should consider when planning and developing the system. The diagram clearly shows how the system will interact with the external environment, whether that be individuals, organizations, or other systems/software. Context diagrams are beneficial because they help illustrate the system's relationship with other related products or other entities within a larger system. It also helps to illustrate the inputs and outputs of the system and where they come from.

To illustrate the inputs and outputs of the website, I thought about the basic function of an e-commerce website. The core purpose of the site is to present products, complete the purchasing, and fulfill the orders that are placed. I designed it with the idea in mind that the customer has already registered for an account on the site and is simply purchasing products from the business. As this is a high-level

abstraction of the system, many other details and interactions could be illustrated given the task of a higher-level diagram.

Constraints from Requirements

Constraints are specified in the <u>Functional and Nonfunctional Requirements section</u>.

1.3.2 Product Functions

- Users will be able to browse through the website to discover products.
- Users will be able to register for an account on the website.
- Users will be able to log in to their accounts to order products and view their account information.
- Customers can specify and describe the design of the product.
- Customers will be able to add both custom and ready-to-ship items to their cart.
- Customers will be able to submit payment for an order.
- Customers will be able to view past orders.

1.3.3 User Characteristics

One of the general characteristics of the user is that they are most likely between the ages of 18-60. Most of the users are also female since the business does many designs that are centered around glitter and themes of the like. The educational level of users does not concern the site since it is simply an ecommerce site. We would assume that the majority of our users have basic knowledge of how to interact with a website since the current system is running off of Facebook and an existing site for the system. It should be assumed that they are not masters at using technology but should have basic knowledge of how to order a product from a site. They should also have basic knowledge of how to check the status of their order or respond to any communication from the company, whether that be messages from the site, emails, or phone calls. The users should be able to type and describe sufficiently what they would like their design to be if the product is custom. The site should be generally easy to use, as the main goal of the product is to make it easier to order and interact with the business.

1.3.4 Limitations

Operating under a solo operator; the business manages a small number of orders at a time. There is a small amount of inventory on hand but has a local supplier for the main items. The amount of time the products take to ship varies based on the number of orders, the number of products in an order, and the capacity of the business at a specific time. Customers may also experience longer shipping times for more specialty products. The ordering process for products is not completely automated, it often requires human intervention to ensure that the product can be created by the business based on the design or to simply order the custom products. Due to this, there are no defined time constraints since the business consistently works at varying times.

Because of the nature of the small business, there is a limited budget for creating the site. The site must also be ready for its initial release within 5 months to allow for a shift into the new e-commerce site. There is no need to build a website that deals with the same traffic as a big corporation, but it is important to consider the opportunity for scaling. The cost of the system should be relatively low as the system does not need many developers and would only need the capabilities of storing site data and a website domain (which is already owned by the business). Because of the above constraints, some features may be basic and minor bugs may exist on the initial release.

Limitations that are specific to the software specification and creation include that the website should be able to run on the most widely used web browsers like Microsoft Edge, Google Chrome, Safari, and Firefox. The site should also be mobile-compatible, meaning that it should adapt to most screens and functionalities should work on mobile devices. The site is expected to use web-specific technologies, languages, libraries, and frameworks. This includes but is not limited to JavaScript, React, Node.js, MongoDB, and REST APIs. The website should continue to uphold the policy that it should be available for active hours of the day, because of this any downtime due to maintenance should be conducted during non-active hours.

Another limitation of the site is that user accounts must be created, processed, and verified before customers can log in. The user must verify their account using their email or other device before their registration gets approved. The site also has a focus on protecting customers' data and ensuring that all payments are conducted securely. Because of this personal data should be encrypted before storing them in databases. Also, secure payment methods, like utilizing the PayPal API should be used to ensure security and accuracy when processing payments.

1.4 Definitions

Customer: An individual who buys and, or requests, a custom product to be made.

Products: Currently include tumblers, pens, earrings, and seasonal items. Defines what is created by the business.

Supplies: Anything to use to create the products.

Custom: A product that has been designed by the customer or business.

Creation: Products are handmade by the business by a custom design using supplies, including but not limited to, glitter, alcohol ink, vinyl, epoxy resin, and rhinestones.

Gallery: A collection of images that showcase the work of a specific individual, topic, or business. In this context, we are showcasing designs of products that the business has created. This serves as inspiration for customers and showcases what the business is capable of creating.

Vendors: External businesses that provide the base product to Ashlynn Glitz & Glitter Custom Boutique to complete the design and order.

Vendor Events: A gathering of small businesses, hosted by vendors, to allow an environment to sell the products of said small businesses.

Medium-Fidelity Wireframes: Medium Fidelity Wireframes are more detailed than low-fidelity wireframes. They tend to include more of the final design as they are typically created in a stage of the process where requirements and details are beginning to get more specific. They tend to have more color and or detail. They allow the client to see the progress in their design and visualize the direction that the product is going in. Medium Fidelity Wireframes are typically recreated throughout the design process as the client is giving feedback, ensuring the design is what they want.

Product Owner: The sole product/business owner is Ashley Denton, also known as Ashlynn. There are no employees of this company as Ashley is the sole individual who manages and works for the business.

Users: Users are defined as individuals who interact with the site but have not or do not order anything from the business.

2. References

References include Ashley Denton, who is the owner of the business. This also includes the <u>current</u> <u>business website</u> and <u>Facebook storefront</u>. I, the developer, and creator of this document, also pose as a resource as I have ordered and experienced working and ordering from the business several times. Because of this, I can provide a customer's perspective of the business and its systems. Other resources used for this document are listed below.

- (29148-2018 ISO/IEC/IEEE International Standard Systems and software engineering -- Life cycle processes -- Requirements engineering, 2018)
- (Weigers & Beatty, 2013)
- (Bourque & E. Fairley, 2014)
- (Design, Ashlynn Glitz & Glitter Home, 2023)
- (Design, Ashlynn Glitz & Glitter Custom Boutique, 2023)
- (Sintamour, 2023)

See References for more detailed citations.

3. Specific Requirements

Functional And Nonfunctional Requirements <u>Link to GitHub Issues (Backlog)</u>

Bullet numbering matches GitHub issues numbering. All requirements listed are of high priority as they are vital to the production of the site.

- 6. The e-commerce website shall display previously created custom designs that are filtered by the date that they were created within a minute.
 - Type/Label: Functional Requirement
 - Linked Issues: #26, #27 (Use Cases)
 - CON-1: The user can choose from a drop-down to change the filtering order and attribute.
 - CON-2: The images should be of medium-level quality to improve the speed and efficiency of the site.
 - CON-3: The displayed images should be stored in an Image CDN (Content Distribution Network) to increase the speed and availability of the site.
- 7. The e-commerce website shall archive any custom designs from the ready-to-ship pages that are out of stock within a minute.
 - Type/Label: Functional Requirement
 - Linked Issues: #27 (Use Cases)
 - CON-1: Product pages will implement a redirect functionality so that users and customers will no longer have access to archive products.

- CON-2: The archived products should be held in the product database for up to 2 years before they are automatically deleted by the system if it stays in the same state for the said duration.
- CON-3: The "within a minute" constraint stated in the title, is dependent on the browser and when it has recently refreshed on the client side of the site.
- 8. The e-commerce website will allow customers to add products to their cart within 15 seconds of clicking a button that reads "Add to cart".
 - Type/Label: Functional Requirement
 - Linked Issues: #26, #27 (Use Cases)
 - CON-1: Customers will only be able to add available products to their cart.
 - CON-2: The speed at which the item is added to the cart is dependent on the site's traffic and the client's internet speed.
 - CON-3: Customers will only be able to add items to their cart if their account is verified.
- 9. The e-commerce website will allow customers to remove products from their cart within 15 seconds of selecting the "delete" icon.
 - Type/Label: Functional Requirement
 - Linked Issues: #27 (Use Cases)
 - CON-1: The "delete" icon may be different across different devices to ensure compatibility and usability.
 - CON-2: The database should be updated when the deletion of the product from the cart is processed.
 - CON-3: The speed at which the item is deleted from the cart is dependent on the site's traffic and the client's internet speed.
- 10. The e-commerce shall allow users to select products from their cart that they would like to order on the cart summary page within 30 seconds.
 - Type/Label: Functional Requirement
 - Linked Issues: #26, #27 (Use Cases)
 - CON-1: The selection process may be different across different devices to ensure compatibility and usability.
 - CON-2: Users may need to scroll through the cart summary page to view and select the products they would like to order.
 - CON-3: The speed at which the item is added to the cart is dependent on the site's traffic and the client's internet speed.
- 11. The e-commerce website shall allow customers to pay for their orders using a verified credit card.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: Credit cards should be verified using the Luhn algorithm and the CVV number which is checked against the company records for verification.
 - CON-2: The amount that a customer can purchase is limited by their credit card limit.
 - CON-3: Only one form of payment can be used for an order.
- 12. The e-commerce website shall allow customers to pay for their orders using a verified debit card.

- Type/Label: Functional Requirement
- Linked Issues: N/A
- CON-1: Debit cards should be verified using the Luhn algorithm and the CVV number and the expiration date which is checked against the company records for verification.
- CON-2: The amount that a customer can purchase is limited by their debit card daily limit.
- CON-3: Only one form of payment can be used for an order.
- 13. The e-commerce website shall allow customers to pay for their orders using PayPal.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: This functionality is only available if PayPal is available.
 - CON-2: The customer must also have a PayPal account to use PayPal to pay for their order.
 - CON-3: Only one form of payment can be used for an order.
- 14. The e-commerce website shall integrate the PayPal API into its payment options when purchasing an order.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: The PayPal API should be primarily used in the transactional process to organize transactions made on the site.
 - CON-2: The transactional functionalities should be built around the PayPal API, which constricts the flexibility of developers.
 - CON-3: The PayPal API may have bugs or backward compatibility that developers must consider.
- 15. The e-commerce website shall verify credit cards with an external verification service.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: The external verification to be utilized is the PayPal API see #14.
 - CON-2: Since the verification service is outsourced, if the external service is down then products cannot be purchased.
 - CON-3: Only one order per user should be processed at a time.
- 16. The e-commerce website shall verify debit cards with an external verification service.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: The external verification to be utilized is the PayPal API see #14.
 - CON-2: Since the verification service is outsourced, if the external service is down then products cannot be purchased.
 - CON-3: Only one order per user should be processed at a time.
- 17. The e-commerce website shall send customers a receipt to their email-account credentials within 10 minutes of processing completion.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A

- CON-1: The receipt should block any sensitive information such as card numbers, as this should not be transmitted among insecure networks.
- CON-2: The receipt should be sent to the user and should be logged as sent to the user in a logging database.
- CON-3: The speed at which the email is sent to the user is dependent on the site's traffic and the client's internet speed.
- 18. The e-commerce website shall allow customers to review previous orders that have been processed within 10 minutes.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: Orders must be processed and verified before being displayed on the product review page.
 - CON-2: Sensitive details like card numbers and details should be hidden on the review page and encrypted in the database.
 - CON-3: The speed at which the order review page is updated is dependent on the site's traffic and the client's internet speed.
- 19. The e-commerce website will allow users to submit credentials to create an account on the site in 3 minutes.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: Users will be asked to create a password after their email is verified.
 - CON-2: The system must receive verification from the user before verifying the account and completing the registration process.
 - CON-3: The speed at which the user can fill in their information to create an account is dependent on the site's traffic, the users' experience with computers, and the client's internet speed.
- 20. The e-commerce site will send an email to the pending customer account to verify the credentials of the new account within 15 minutes of processing the credentials submitted.
 - Type/Label: Functional Requirement
 - Linked Issues: N/A
 - CON-1: The email verification should have a redirect link to create a password. This link should expire after 36 hours.
 - CON-2: The user must be able to access their email to verify and complete their account registration.
 - CON-3: The speed at which the verification email is sent to the pending customer account is dependent on the site's traffic and the client's internet speed.
- 21. The e-commerce website will not allow customers to return an order.
 - Type/Label: Nonfunctional Requirement
 - Linked Issues: #5
 - CON-1: This is a business rule specified here #5.
 - CON-2: As shipping is completed by external vendors, products cannot be returned or refunded in any context.
 - CON-3: Business Rules must be followed under any circumstance.

- 22. The e-commerce website will allow customers to submit secure payments for their orders.
 - Type/Label: Nonfunctional Requirement
 - Linked Issues: #13, #14, #15, #16
 - CON-1: The external verification for payments to be utilized is the PayPal API see #13 #14 #15 #16.
 - CON-2: Since the verification service is outsourced, the payment is as secure as the source.
 - CON-3: Data should be encrypted when transferring packets or storing them for later use.
- 23. The e-commerce website shall allow customers to add a product to their cart within 5 clicks, starting at the home page.
 - Type/Label: Nonfunctional Requirement
 - Linked Issues: #6, #8, #10, #26, #27
 - CON-1: Customers will only be able to add products to their cart if they are logged into their verified account.
 - CON-2: A product can only be added to a customer's cart if it is in stock.
 - CON-3: The constraint of 5 clicks is on average, as this depends on the user.
- 24. The e-commerce website shall allow customers to easily describe custom product designs on the product ordering page by integrating simple functionalities.
 - Type/Label: Nonfunctional Requirement
 - Linked Issues: N/A
 - CON-1: Customers will only be able to write a specific length of descriptions for text boxes to improve readability for the business when they are creating products.
 - CON-2: The usability of the site should be considered for individuals who have a moderate amount of experience using technology, specifically e-commerce sites.
 - CON-3: The usability of the system will vary between devices as the experience for mobile users should be heavily altered to ensure that customers can easily describe their custom product design.
- 25. The e-commerce website shall not share customers' information with unauthorized parties and personnel.
 - Type/Label: Nonfunctional Requirement
 - Linked Issues: N/A
 - CON-1: Any customer data should be encrypted and only shared with the necessary parties.
 - CON-2: Authorized individuals include external companies verifying payment information and the customer.
 - CON-3: Authorized individuals must provide some form of authentication to be sent the information.

Use Cases and Diagram

001: Customer or User browsing website for products. (#26 in GitHub)

Primary Actors

Customer, User

Secondary Actors

Product Database

Description

Customers or Users (see definition in BRS) should be able to browse the site to get information about the products that the company sells. They will have a better idea of what they would like to order. The software should present this information.

Goals

The main goal of this use case is to increase the readability and usability of the site. It serves to present the company's information, making it easier for customers and users to browse the site, ultimately increasing revenue and the number of returning customers.

Preconditions

Customers or Users must have navigated to the site using external links or from an advertised web address. The webpage could have been found in advertisements, a web search, or social media pages.

Basic Flow

- 1. Customers or Users will select from the options of the navigation bar, or the options displayed on the home page:
 - Gallery
 - Tumblers
 - Earrings
 - Pens
 - Specialty Products
- 2. If the Gallery is selected, the site will load image links of all the products that the company has created and can create at that time. These products can be customized. The images will be sorted in order by most recently created.
 - The images are links that will redirect the user to a detailed description of the item as well as the option to order. See 002.
- 3. If the Tumblers, Earrings, Pens, or Specialty Products are selected, the site will load all products of that specific type that the company has available for immediate sale. These products cannot be customized. The images will be sorted in order by most recently created.
 - The images are links that will redirect the user to a detailed description of the item as well as the option to order. See 002.
- 4. If the user selects Wishlist, Cart, or Login/Account they will be redirected to create or login to their account. See 004.
- 5. If the customer selects Wishlist, Cart, or Login/Account they will be redirected to the listed page if they are logged into their account. See 006.
- 6. The customer or user can select any of the options on the navigation bar or the logo (to return to the main page) to browse the page more.

Alternative Path

- 1. There is a connection error between the site in the user or customer.
 - Users or Customers will be asked to refresh the page or to try to access the page later.

Post Condition

The user will be able to have an idea of the products that the business has to offer. They will also have an idea as to what they would like to purchase or add to their cart.

Summary

Browsing the site is an essential component to the success of the system. Being able to easily browse the site will increase the usability and readability of the site, which in turn will increase the rate of customer retention and overall revenue for the business. To ensure that the site is usable, we must ensure that all products and images are easy to find and organized. Any customer or user should be able to browse the site for products and have a direct path to the items that they are interested in viewing, and potentially order. This use case focuses on the interaction between the customers, or users, with the browsing functionality of the site. This includes but is not limited to the navigation bar, the home button, and the gallery button.

Any customer or user who has arrived at the main site using advertisements, web searches, social media, etc., will have access to browse the site to view the products that the business is selling. After the customer or user has navigated to the page, they will then be able to browse different pages of the site. This includes:

- Home
- Gallery
- Tumblers
- Earrings
- Pens
- Specialty Products
- Wishlist
- Cart
- Account

To be clear, this use case focuses on navigating the site to view and explore products. However, browsing the site specifically for customers may involve browsing their Wishlist or previous orders. Thus, I have included these options in the summary, but generally, the pages of main priority are listed in the Basic Flow section.

Each page will contain an updated stream of linked images that customers and users can click on for a more detailed view of the product. The site will include navigation tools such as different filter options to search through the products easily. The site shall ensure that all products and information are laid out in a clear and organized manner so that users and customers will have a good idea of products that they may want to order.

002: Customer adding a Ready-to-Ship product to their cart. (#27 in GitHub)

Primary Actors

User, Customer

Secondary Actors

Product Database

Description

Customers can add Ready-to-Ship products to their carts. These products can be viewed from the navigation bar under their specific label. These products cannot be customized as they have already been created.

Pre-Conditions

Customers or Users (see definition in BRS) must have navigated to the site using external links or from an advertised web address. The webpage could have been found in advertisements, a web search, or social media pages. Users must register with the site to log in. See 003. Customers must log in to the site before ordering.

Basic Flow

- 1. The Customer will navigate to the image of the product on the site. See 001.
- 2. The Customer will click on the image of the product that they would like to add to their cart. They will be redirected to a detailed listing of the product that includes title, price, description, etc.
- 3. The Customer will click on the button in the detailed listing of the product that reads "Add to Cart".
- 4. The product will be added to the cart and is now ready to be ordered. See 010.

Alternate Paths

- 1. User has not registered for an account on the site, the link to register will be displayed to the user.
 - No items can be added to the cart until the user has an account and is logged in.
- 2. The Customer has added a product to their cart that is no longer available.
 - The unavailable item will be automatically removed from the cart after the user is notified that the item is unavailable.

Post-Conditions

The user should now have a cart full of items they would like to purchase. They will then be able to order as long as the items remain available.

Summary

Being able to order products is an essential function and goal of the site. To facilitate the process of ordering products, customers can add ready-to-ship products to their cart for purchase. This process defines an organized way for customers to purchase products from the site. Before adding items to the cart Customers or Users must have navigated to the site using external links or from an advertised web address. The webpage could have been found in advertisements, a web search, or social media pages. Users must register with the site to log in. See 003. Customers must log in to the site before ordering. This use case focuses on the interaction between the customers and part of the ordering functionalities of the site. This use case is specifically focused on building a cart for the user.

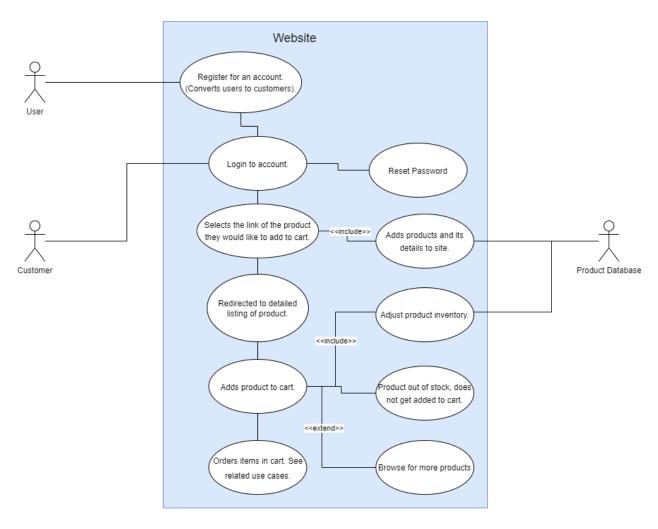
Any customer who has logged into the site and browsed through the Ready-to-Ship product (See 001) can add items to their cart. After the customer has navigated to and logged into the site, they will be able to:

1. Navigate to the image of the product on the site.

- 2. Click on the image of the product that they would like to add to their cart. They will be redirected to a detailed listing of the product that includes title, price, description, etc.
- 3. Click on the button in the detailed listing of the product that reads "Add to Cart".
- 4. The product will be added to the cart and is now ready to be ordered.

The customer will be able to repeat this process for any Ready-to-Ship products that they would like to add to their cart. After they have completed this process, their cart will be full of items that they will be able to purchase. The rest of the ordering process will be detailed later. It is important to note that items in the cart can become invalid as time goes on. If the product becomes unavailable, the cart should reflect this availability change. The site should periodically check item availability and ensure that only available products can be ordered and viewed.

002: Customer adding a Ready-to-Ship product to their cart.



4. Verification

To verify the requirements of the project that have been specified in <u>3.Specific Requirements</u>, there is a combination of verification techniques that we can utilize. We can begin by inspecting the site to ensure that the original design that was created during the specification phase and modeled in the prototype is in correspondence with the end product. It is important to note that any deviation from the proposed design/prototype should have been documented to ensure that the inspection is a seamless process that reflects the planning and feedback from the stakeholders.

We must also use simulation to verify that the product is working properly. This would entail hosting the site using a test domain or some type of free hosting software to ensure that the release of the product to the web will not cause any unexpected reactions. This will essentially serve as a Beta test of the software, and this could be utilized as a verification technique to ensure that the product has been built correctly per the stakeholders of the product.

Lastly, a large portion of the verification process should be spent testing the website. This includes testing the functionalities that have been specified in the requirements. This also includes implementing a testing framework to test the output of the website and ensure that it is doing the right thing. This is typically automatically checked, but the issues that have been found should be fixed and re-tested during the verification phase. This can also include conducting acceptance testing, specifically Beta testing. Since this was previously planned in the validation process, we must conduct the testing to ensure that the website is doing what it is supposed to do.

5. Appendices

5.1 Assumptions and Dependencies

- Customers are finding it difficult to order and browse through the company's products.
- A well-executed solution to the problem statement will result in better marketing for the business.
- A well-executed solution to the problem statement could result in greater revenue for the business.
- The business offers a good range of products, but it has not been organized in a fashion to be easily presented to a customer.
- The website should allow customers to easily order a product.
- The website is expected to run on the most popular web browsers, including Microsoft Edge, Safari, Google Chrome, and Firefox.
- The new website should be able to replace the current website while using the same web hosting services and domain name.

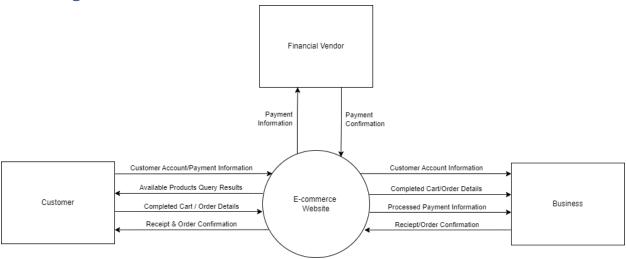
5.2 Acronyms and Abbreviations

UI: User interface

References

- 29148-2018 ISO/IEC/IEEE International Standard Systems and software engineering -- Life cycle processes -- Requirements engineering. (2018, November 30). IEEE.
- Bourque, P., & E. Fairley, R. (2014). *Guide to the Software Engineering Body of Knowledge.* Piscataway, NJ: IEEE.
- Design, A. (2023). *Ashlynn Glitz & Glitter Custom Boutique*. Retrieved from Facebook: https://www.facebook.com/ashlynnglitzandglitter
- Design, A. (2023). *Ashlynn Glitz & Glitter Home*. Retrieved from Ashlynn Design: https://ashlynndesign.bigcartel.com/
- Sintamour, D. (2023). *ReqEng-Analysis / Ashlynn_Glitz-Glitter_Boutique*. Retrieved from GitHub: https://github.com/ReqEng-Analysis/Ashlynn_Glitz-Glitter_Boutique
- Weigers, K., & Beatty, J. (2013). Software Requirements Third Edition. Redmond, WA: Microsoft Press.

List of Figures



002: Customer adding a Ready-to-Ship product to their cart.

