

## **Functional Requirements Document**

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CSCI 497 Senior Project Design

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## PROJECT DRIVERS

### 1. The Purpose of the Project

The main purpose of this project is to help my clients with their small businesses be able to teach other small businesses how to improve their e-commerce platforms. Improving small business e-commerce platforms means many small businesses will have better chances of surviving against corporate giants. The e-commerce platform is to grow more of the business, which will create more customer loyalty with an active online presence that ensures improvements in customer service and a path to market the business to create more revenue.

### 2. The Client, Customer, and Key Stakeholders

Client	Rivers Rise, Bobby and Narie Gibson
Sponsor	Professor Julie Henderson, Charleston Southern University
Project Advisor	Julie Henderson
Project Developer	Chamberlain Gibson

### 3. Users of the Product

The main users of the product are the clients, Rivers Rise. They will be working on the system. They will be adding and deleting objects in their database of their products. They will be updating their website with new products and sending out notifications of those new products to their customers. Any user will be able to navigate to the website platform to see the products and get more information about the business.

## PROJECT CONSTRAINTS

### 4. Mandated Constraints

The main constraint is the timeframe of completing this product for the clients. Aligning developer's schedule to maintain an efficient and working consistently process for on the project. Maintaining a zero-cost budget for the client as a prototype for the client to approve and then transitioning into a more developed product with software elements.

### 5. Naming Conventions and Definitions

Front-End: The part of the system that is accessed by the user is responsible for providing all the information that the user is searching for that is specifically comprehensible.

Back-End: The part of the system that is not accessed by a user but is responsible for storing or manipulating data.

PostgreSQL: A specific programming language that is used in developing a database that is specifically used to store and retrieve data on a relational database.

Visual Studio Code ("VSC"): The development platform for developing source code the entire project of developing this project.

"VM": virtual machine

### 6. Relevant Facts and Assumptions

The main users of the product are the clients, Rivers Rise, they will be working on the system. They will be adding and deleting objects in their Database of their products. They

will be updating their website with new products and sending out notifications of those new products to their customers.

## FUNCTIONAL REQUIREMENTS

### 7. Scope of the Work

My clients, Bobby and Narie Gibson, for their company, Rivers Rise, requested an e-commerce website with a functioning cloud-based database to store their products. Rivers Rise produces custom wood and macramé pieces that are made specifically for their customers. The website will entail different tabs for the types of products, an about the business page, a sign-in account, and an encrypted checkout for customers.

### 8. Scope of the Product

The focus of the product is to maintain a high-level security measure to ensure the customer security and the client's business security. With an e-commerce store, the merchandise and information will be available for anyone to find so the importance of following the NIST 800-171 framework for this product. The product entails a fully functional website. These customers will be allowed to adjust and the information to be stored within a database. This section in the database will help the business keep track of inventory.

### 9. Functional Requirements

#### a. Main Home Page: All Users

Requirement ID Number:  CG_1	Requirement Type:  Section 11: Usability	
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Description: Main Home Page for the website.
Rationale: This is the Front-End aesthetically and easy main home page for users to view the website.
Fit Criterion: This is to maintain a sophisticated user-friendly level that the user is able to go to the Home page where there will be updates and access to all the information provided in tabs.
Priority: 5
Dependencies: Website Task

b. Products Page: All Users

Requirement ID Number: CG_2	Requirement Type: Section 11: Usability	
Description: This is a display of all the products that any user can view on the Products Tab on the Home page the content is generated from the database.		
Rationale: This is a display of all the products that Rivers Rise provides.		
Fit Criterion: This requirement can be accessed by any user when the user clicks on the Products tab on the Home page it will successfully present all the products to the user.		



Priority: 5
Dependencies: Website Task

c. "About Us" Page: All Users

Requirement ID Number:  CG_3	Requirement Type:  Section 11: Usability	
Description: This is the "About Us" page that provides details of the business to create a more personal relationship to e-customers.		
Rationale:		
Fit Criterion: This requirement can be accessed by any user when the user clicks on the About Us tab on the Home page it will successfully present all the information to the user.		
Priority: 5		
Dependencies: Website Task		

d. Contact the Business Page: All Users

Requirement ID Number: CG_4	Requirement Type: Section 11: Usability	
Description: This allows any user to contact the business with any questions or concerns that they have and view social media platforms that the business is on.		
Rationale: The user is allowed to bring up any concerns or questions that the business can answer for the user.		
Fit Criterion: This allows the user to be able to contact the business if there are any issues or learn more about the business itself.		
Priority: 5		
Dependencies: Website Task		

**e. Sign-Up Account Page: All Users**

Requirement ID Number: CG_5	Requirement Type: Section 11: Usability	
Description: This allows a user to sign-up for an account on the website.		
Rationale: The user is able to sign-up for an account that will allow them to receive notifications about sales or deals and new information from the business.		

Fit Criterion: This allows any user to sign-up for an account and the user does not have to be a paying customer to sign-up for an account.
Priority: 5
Dependencies: Website Task

f. Sign-In: Registered Users

Requirement ID Number: CG_9	Requirement Type: Section 11: Usability	
Description: This allows any registered user to sign into their account.		
Rationale: The user can sign into their account that will be recorded in the database.		
Fit Criterion: The user can sign in and out of their account whenever they need too and the business can see the amount of people who register for an account.		
Priority: 5		
Dependencies: User has signed up for an account.		

g. Forgot Password: Registered Users

Requirement ID Number: CG_10	Requirement Type:  Section 11: Usability	
Description: The user may forget their password, so this allows them to enter a new password		
Rationale: The user may forget their password which this allows them to input a new password that will be updated in the database.		
Fit Criterion: This allows the user to feel that they can control their account and customize to their specifications.		
Priority: 5		
Dependencies: Website Task		

#### h. Change Password: Registered Users

Requirement ID Number: CG_11	Requirement Type:  Section 11: Usability	
Description: During the sign-in process the user has the option to change their password.		

Rationale: The change password function is to allow the user to have more personalization in any given scenario the user may go through when interacting with signing into their account.
Fit Criterion: Usability
Priority: 5
Dependencies: Sign-In

i. Admin Updates Database to Products

Requirement ID Number: CG_23	Requirement Type: Section 11: Usability	
Description: The admin can add products to the database to control inventory of the products		
Rationale:		
Fit Criterion: The Back-End aspect of one of the tables that holds the products for the admin to see the amount of inventory.		
Priority: 5		
Dependencies: Database Task		

## NON-FUNCTIONAL REQUIREMENTS

### 10. Look and Feel

#### a. Appearance:

- i. The appearance will be a professional upscale website with a very big stamp of “home is where the heart is” that describes the business characteristics.

#### b. Style

- i. A small business that is selling handmade items so this website will be on the professional bohemian and cultured spectrum. This spectrum for this small business produces character and

### 11. Usability

#### a. Ease of Use:

- i. The ease of use will maintain a clear level of user-friendliness that the users will have no issues accessing information from any platform whether that is admin or customer.

#### b. Personalization and Internationalization

- i. These products are essential to the personality of this small-business it is named after one of the family members of the clients who passed away.

#### c. Learning

- i. On the development part, there is a good amount of research due to wanting to be accurate and provide an outstanding product for this small business to grow.
- d. Understandability and Politeness
  - i. Since the concept of this small business is simple, every aspect of this product must be just as simple. By "simple," it is not meant to be derogatory by any means; it is meant to be a significant compliment to the small business in that the customers will find the simplicity in personalization of woodworking and macramé quite beautiful from the execution in delivering these products.
- e. Accessibility
  - i. The most important aspect to any development system that requires a user interface interaction is user-friendliness and making sure that everything can be found in the most minimal number of clicks.
- f. Convenience
  - i. All the users should have a very convenient avenue with this product to find all the information that is provided from the website. The website and database should have all the information accessible on the administrative access for both of these. With Ruby on Rails, there is an administrative page that can be used for the small business owners to make changes to both the database and website.

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