**SLW Home Improvements Greenville, NC**

**Group 1 MIS 4173**

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# **Project Description and Analysis**

## **Executive Summary**

SLW Home Improvements is a company based in Greenville, NC, specializing in fabrication. As the business grows, it needs a digital solution to keep track of customer information, pricing, and services more efficiently. The plan is to create a website and a database to organize and manage data better. This project will help the company work more efficiently, improve customer experience, and streamline operations.

### **Narrative and Conclusions**

Building a website and a customer database will allow SLW Home Improvements to store and access important information in one place. The new system will let customers see service details, request quotes, and contact the company easily. The database will also help the company track customer requests, manage pricing, and improve workflow. The goal is to create a strong digital system that helps the business grow and operate more smoothly.

## **Company Background & Current Environment**

SLW Home Improvements, located in Greenville, NC, specializes in fabrication. Right now, the company uses spreadsheets and manual methods to manage customer data and pricing. This process is inefficient and can lead to mistakes, slow responses, and difficulty tracking information. Without an online presence, the company also struggles to attract new customers and organize its work efficiently.

## **Problem Analysis**

To solve these challenges, we analyzed the company’s needs using three approaches:

* **BPA (Business Process Automation):** Automating data entry and retrieval to save time and reduce errors.
* **BPI (Business Process Improvement):** Creating a central database to make it easier to access and update customer records and pricing.
* **BPR (Business Process Reengineering):** Designing a website where customers can communicate with the company and request services online.

## **Proposed System Objectives and Constraints**

### **Objectives:**

* Create a simple, easy-to-use website for SLW Home Improvements.
* Build a secure database to store customer information and pricing.
* Make it easier to find and manage important business data.
* Improve customer interactions with online forms and service requests.

### **Constraints:**

* The project has a limited budget and timeline.
* The system needs to be easy to use for both customers and employees.
* Data security is a priority to protect customer information.

## **Expected Benefits**

* **Better Efficiency:** Less manual work and a faster workflow.
* **Improved Customer Service:** Easier communication and service requests.
* **More Accurate Data:** A central system reduces mistakes and duplication.
* **Business Growth:** A stronger online presence to attract more customers.

## **Context Diagram**

A diagram of a website

AI-generated content may be incorrect.

## **Use Case Diagram**

A diagram of a diagram

AI-generated content may be incorrect.

## **Non-Functional Requirements**

**Operational**

•Must be accessible via standard web browsers (Chrome, Firefox, Edge, Safari)

•Must be available at least 99% of the time excluding scheduled maintenance

•Must be able to handle at least 100 users without a degradation in performance

•All customers and administrator interactions with the site need to be logged for auditing purposes

**Performance**

•Page load times need not be excessive, ideally within or below 3 seconds load time

•The database must also be able to respond to queries within 3 seconds

•Batch processing should be able to complete within 30 seconds

•The system needs to be scalable, ideally able to handle a 30% increase in traffic annually

**Security**

•User authentication must be encrypted

•All sensitive data such as customer information should be encrypted as well

•The system needs preventative measures for SQL injection or other similar attack practices

•Users should be logged out after 15 minutes of inactivity

•Role based access should restrict access depending on your roles

**Usability**

•The UI should be simple and easy to use for customers and for employees

•Service requests should be completed within 3-5 clicks

•Admins should be able to update services and access customer data easily

•Actions should have clear error messages if unable to process requests