

Software Requirements Specification

for

Unique Builders Company

Version 3.0 approved

Prepared by Tech Titans

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Revision History

Name	Date	Reason For Changes	Version
Original Version	9/13/2023	Sprint 1 Submission	1
2nd Revision	9/20/2023	Sprint 1 Revision Submission	2
3rd Revision	9/27/2023	Add Introduction & Scope & Fix Diagram	3

1. Introduction

1.1 Overview

The creation of software for the construction company Unique Builders aims to streamline its internal operations and improve its online presence through a comprehensive website. This web portal will serve as a hub for both employees and customers to interact with the company, access necessary resources, and carry out various tasks related to their roles in the company. This document outlines the functional and non-functional requirements of the website to ensure it meets the needs and expectations of its users while adhering to industry standards and practices.

1.2 Goals and Objective

1.2.1 Goals

- To develop a user-friendly, secure, and efficient website for employees and customers of Unique Builders.
- To automate and streamline internal processes such as employee management, timekeeping, payroll, and work order management.
- To provide a platform for customers to get in touch with the company, learn about what services the company offers, and request quotes or further information.
- To enhance the online presence and reputation of Unique Builders.

1.2.2 Objectives

- Implement a secure and straightforward employee login system.
- Create a customer contact form to facilitate easy communication between customers and the company.
- Ensure the website is accessible, easy to navigate, and reflective of the company's brand.
- Develop software functionalities for managing employee information, timekeeping, payroll, and work orders.

1.3 Scope

The scope of this project encompasses the development and implementation of a comprehensive webpage for Unique Builders, directed at automating internal operations and enhancing customer engagement. The web portal will feature a secure employee login system, functionalities for managing employee information, timekeeping, payroll, and work orders, alongside a customer contact form to facilitate easy communication between customers and the company. Additionally, Streamline operation. Through this website, Unique Builders aims to provide a platform for customers to interact with the company and streamline its operational processes. This project will offer digital solutions to foster operational efficiency, customer satisfaction, and overall business growth for Unique Builders.

2. Functional Requirements

2.1 Employee Login

Actors: Employee

Description: When the employee goes to the company website they click the employee login tab. They will be redirected to the employee login page where they will be asked to provide their username first then their password.

Basic Path:

1. The employee accesses the website
2. The employee clicks the employee tab to access the employee login page
3. The employee enters their username
4. The employee enters their password
5. The system will verify the user's information with the database

Alternate Path:

If the Employee is logging in for the first time, and they reach basic path step 3 where they are asked to enter their username. After the employee enters their username for the first time, they will be prompted to give their email address and phone number and then be prompted to enter a password for future login and backup information.

2.2 Employee Forgot Password

Actors: Employee

Description: The employee accesses the employee login page, they click on the forgot password hyperlink which redirects them to confirm their email address or phone number correlated to their username. After this information is confirmed an email will be sent to a system administrator. The system administrator will send a temporary password to the employee via email or text message. The employee will attempt to log in after they enter their username and temporary password. They will be prompted to a new page where they can enter a new password and confirm it.

Basic Path:

1. The employee enters their username
2. The employee clicks the forgot password option
3. A password reset request will be emailed to System Administrator
4. The administrator confirms the request is valid
5. The administrator sends the employee a temporary password via email or text message
6. The employee enters their username
7. The employee enters their temporary password
8. The employee enters their new password and confirms it

Alternate Path:

If the employee cannot receive a temporary password through email or text messages at basic path step 5, the administrator will provide the temporary password through a phone. The rest of the basic path steps following this one stay the same.

2.3 Adding and Terminating Employee dropdown

Actors: Administrator Employee

Description: Employees with administrator authorization would request a new employee ID with a form that would detail the employee's information that is needed to be inputted into the database, or the administrator employee would request an employee ID already in the database to be terminated.

Basic Path:

1. The employee accesses the website
2. The employee clicks the employee tab to access the employee login page
3. The employee enters their username
4. The employee enters their password
5. The system will verify the user's information with the database
6. The employee clicks on the tab for adding & terminating employees
7. The employee clicks on either the adding or terminating section.

Adding new employee path:

8. If adding an employee, the employee inputs the information of the new employee.
9. The system verifies the new employee's information & submits it to the database.
10. The system receives the new employee's ID from the database & gives it to the administrator.

Terminating employee path:

11. If terminating an employee, the employee inputs the ID of the employee to be terminated.
12. The system verifies the ID & terminates the employee.
13. The system informs the administrator that the employee was terminated.

Alternate Path:

After the Employee enters their username (not for the first time), there will be an option for if they forgot their password. See use case 1.2. On the adding new employee path, if the information entered is not valid (e.g. the email entered is not a valid email or the information matches an employee who is already in the database), the administrator is informed by the system of the error & prompted to fix it. On the terminating employee path, if the information entered is not valid (i.e. the ID number doesn't exist in the database), the administrator is informed by the system of the error & prompted to fix it.

2.4 Weekly Timekeeping and Payroll

Actors: Administrator Employee

Description: Employees with Administrator Authorization will be able to select an employee and put in the hours they worked for the week. After that, the system will calculate the sum of all the employees' payroll that week.

Basic Path:

1. The employee accesses the website
2. The employee clicks the employee tab to access the employee login page
3. The employee enters their username
4. The employee enters their password
5. The system will verify the user's information with the database
6. The employee selects the timekeeping and payroll tab
7. The employee selects another employee and inputs their hours worked for the specific week
8. The system calculates the sum of all the employees' payroll that week and displays it.

Alternate Path:

If the employee enters an invalid number of hours for an employee, the system will prompt them to enter the correct amount.

2.5 Job work orders

Actors: Administrator Employee

Description: Employees with Administrator Authorization will be able to add work orders including small job descriptions, addresses of the job location, employee/s that worked at the job, date, and if the job is still pending or if it has been completed.

Basic Path:

1. The employee accesses the website
2. The employee clicks the employee tab to access the employee login page
3. The employee enters their username
4. The employee enters their password
5. The system will verify the user's information with the database
6. The employee selects the work orders tab
7. The employee will select Create New Work Order
8. The employee will add the address, employee/s that worked on the work order, date, and progress of the work order
9. The employee will now be able to see the work order on the work order page describing the current/pending work orders

Alternate Path: The employee will be able to update or terminate a specific work order to either say the work order has been completed or if additional information needs to be added to the job description. Also if they want to delete a specific work order they will be able to delete a previously added work order.

2.6 Customer contact form

Actor: Customer

Description: When the customer clicks on the Contact Us tab they will be redirected to a form displaying questions for them to fill out.

Basic Path:

1. The customer accesses the company site
2. The customer clicks the Contact Us tab
3. The customer fills out the Contact Us Form
4. The customer submits the form and will display a message confirming their submission.
5. The company's email receives the customer's form.

On the main Unique Builders website there will be a tab labeled "contact us". The webpage user will be able to put in their contact information such as their phone number, email address, first and last name, and a short description of what they are trying to reach out about.

3. Non-functional requirements

3.1 Security

Employee login should require a password. Employees have limited password attempts. There should be a secure option for an employee to reset their password. The passwords should be salted and hashed.

3.2 Work Orders

Information inputted by the Employees should be registered into the database and stored for future reference. The work orders should be generated into a table that is easy to understand and refer back to.

3.3 Accessibility

The website should be easy to read and use for every type of user. The domain name for the website should correlate back to the company's name.

3.4 Website

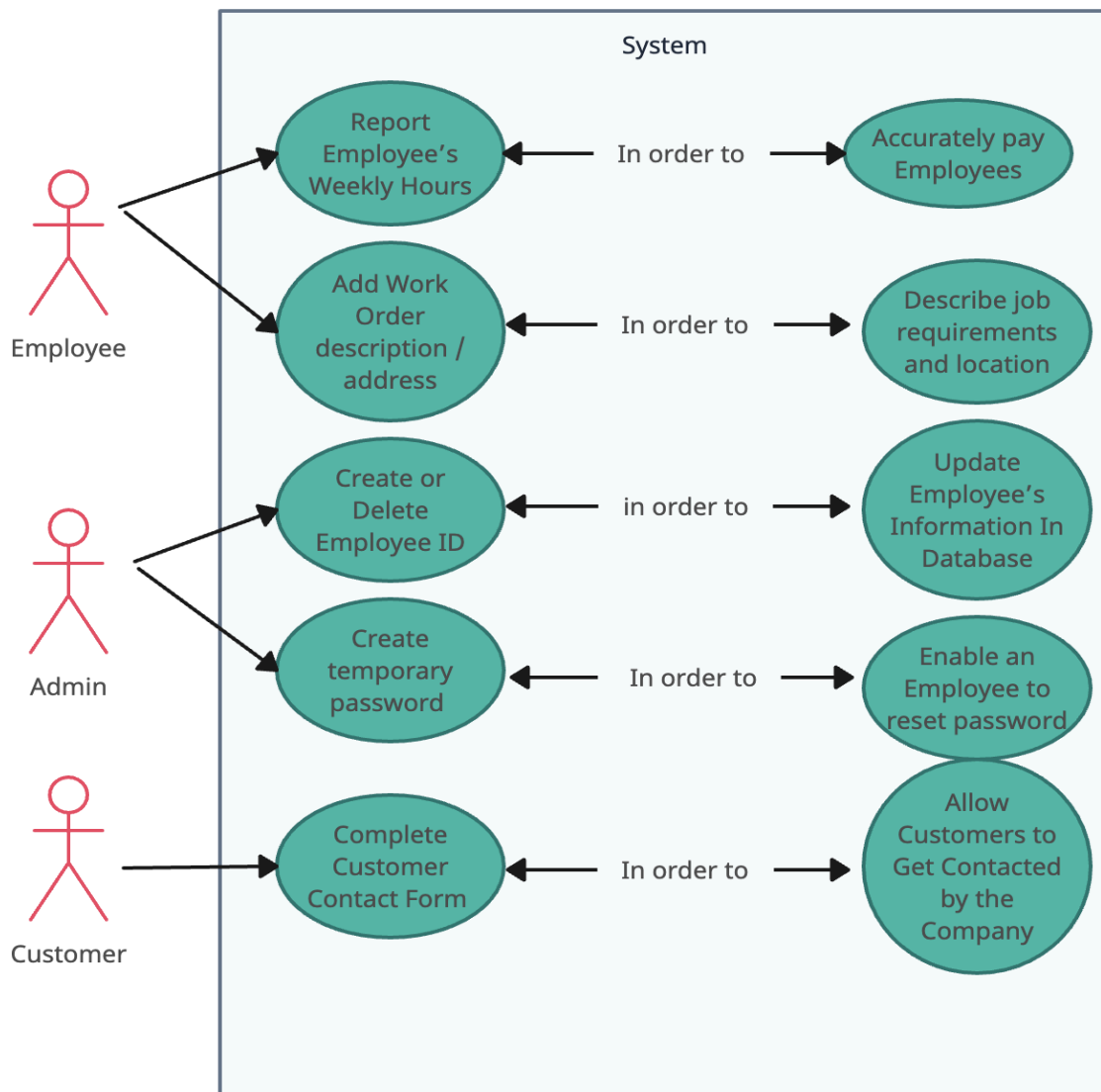
The website will have sections for employees and prospective customers. It will represent the company and its work to potential customers and spread the company's social presence.

4. Software Process Model

4.1 Hybrid of Waterfall and Agile Software Development Process Model

5. Use Case Diagrams

5.1



6. Appendix

6.1 Short description of the role of each team member

6.1.1 Team Leader

- Emilyo Garcia, the main organizer of the project and the person who will be contacting customer company regarding questions they may have and suggestions

6.1.2 Lead Programmer

- Gracie Ceja will be responsible for most of the programming corresponding to the website and database.

6.1.3 Lead Designer

- Emilyo Garcia, the person responsible for designing the website and other webpages so they will look to company standards

6.1.4 Quality Assurance Leader (Testing)

- Laban Tran will be responsible for looking for bugs within the website and inputting information into forms that can cause problems later on. Also, test running database information to ensure everything corresponds to its proper location.

6.1.5 Analyst/Requirements Engineer

- Colton Boyd will be responsible for checking that the functional and non-functional requirements are being met to customer standards.

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