

***LifeTree*WNY Requirements Document**

1. Introduction

1.1 Overview

Life Tree Services LLC is a christian and disabled veteran owned business, and has been in the tree industry for years. This project aims to add more features to its existing web application in order to grow the business. It also aims to fix the existing vulnerabilities and make the application more robust and resilient to errors.

1.2 Scope of the Product

Lifetree WNY has a web application currently in place. At the end of the project, this application will be able to send automated emails to potential and existing customers with offers and discounts. There will be a map view in the app which will showcase the jobs based on the locations with details like monetary value of the job, dropbox link containing the details. The web app will have vulnerabilities fixed and will support a functioning developer environment. Importing accounting details into quickbooks from routzy CRM would be happening without manual intervention.

1.3 Business Case for the Product

LifeTree WNY plays an important role in maintaining the health and safety of trees, as well as ensuring that trees contribute to the well-being of the environment and the communities where they are located. The proposed work in the project will help the business grow by eliminating various bottlenecks and automating tedious processes. Through this project, we would like to contribute in saving trees and keeping western New York area green.

2. General Description

2.2 Product Functions

- Functioning staging environment - makes developer's job easy
- Automation of data transfer between routzy (CRM) and quickbooks (Accounting software)
- Map view of jobs for employees with visual cues to optimize the job execution
- Automated email alerts like discounts/offers to customers in order to grow the business.

- Make the existing dashboard more resilient and user friendly.
- Build a mechanism to avoid duplicate entries in quickbooks.

2.3 User Characteristics

The project is mainly intended for the owner and employees of Lifetree wny to manage the business. Owner has a dashboard to view the statuses of various jobs, few controls to perform tasks like syncing data from routzy to quickbooks. Employees will have access to dashboard where they can view jobs, update statuses & details of jobs. Owner is the admin of the app and has a rough understanding of the technologies used in building the app. Employees are not required to be tech savvy but should have enough knowledge to use this app on mobiles.

2.4 General Constraints

Since it is a small scale business, we need to keep the cost of developing and managing this app to minimal. Instead of venturing into new technologies, we will stick to the existing tech stack: mysql for data storage, nodeJs and typescript for backend and reactJs for frontend . This product is mainly used by employees of Lifetree WNY on their mobiles. But we will let this be an web application that can be accessed with any browser on any device as it would be costly to maintain multiple mobile apps for different devices. We are required to make the product compatible with the newer existing version of quickbooks.

2.5 Assumptions and Dependencies

It is assumed that all the users are supposed to have an email ID through which they can be contacted.

3. Specific Requirements

3.1 User Requirements

- Create an email builder for automatic generation of follow-up emails to the customers. The idea is to have a mechanism to send emails to the potential customers who have taken the services in the past and the customers who took a quote but never took any service. Emails should be triggered automatically to these potential customers. For example, send a follow up email to the client for a discount or a reminder for a recurring job like pruning.
- Fix quickbooks enqueued jobs sync issue. Currently, few of the enqueued jobs failed while syncing to the quickbooks account of the client. In case a job fails to sync an email should be triggered to the client. Through this the client can avoid checking the entries in quickbooks manually.

- Fix Lifetree dashboard to add a dropbox link in the active jobs list. Dropbox contains all the pictures of damaged trees and other information required by crew members to get the job done. This will allow the client to send those pictures and information manually through emails or text to the crew members.

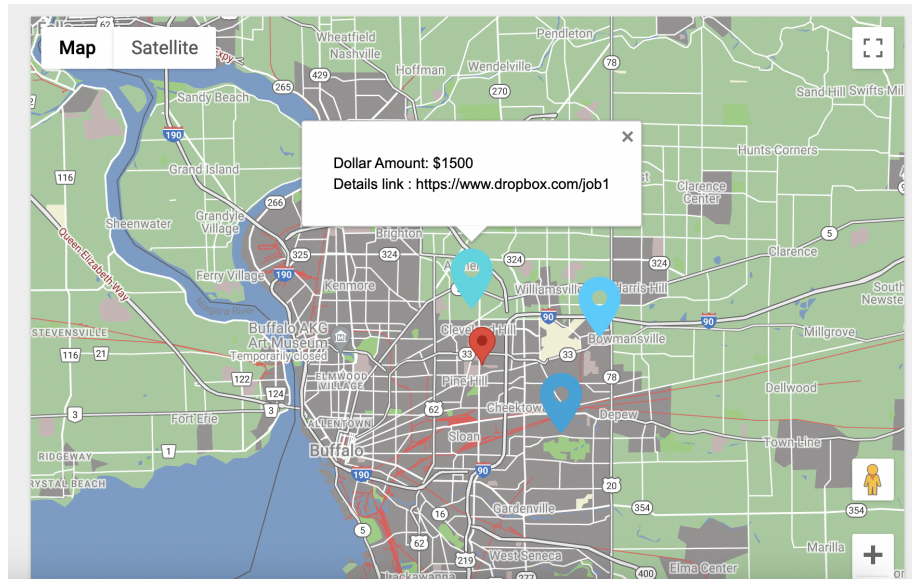
3.2 System Requirements

- Fix staging and production environments. The current production environment points to the staging server and is publicly exposing all the database records which is a security vulnerability. We need to setup a staging and a production environment. Staging system will help in debugging and testing of new features during the development. The staging system will be a replica of the production environment.
- Setup auth0 for staging and production environments. This is required to restrict any unwarranted access to the environments in order to protect the production data.

3.3 Interface Requirements

- Fix quickbooks web connector. While importing invoices to quickbooks from the database through quickbooks web connector, the connector fails in between resulting in the invoice not being synced with the quickbooks. It happens frequently.
- Create a google map view having the markers for the list of active jobs. The marker should contain the address and amount (in dollars) of the active job. The map view will provide the client more information that will be helpful for him to prioritize the active jobs.
- Fix quickbooks duplication of records. Syncing of a duplicate invoice from LifeTree dashboard, creates duplicate entries in quickbooks which have to be then deleted manually by the user. LifeTree api responsible for record synchronization will check for the duplicate records before creating a new entry in quickbooks.

Map view mock up:



4. Appendices

Minutes of meeting: Feb 8

Minutes of meeting: Feb 7

Historical technical Documentation

5. Glossary

Quickbooks - A finance and accounting software tool developed by Intuit. It connects to the database via a quickbook webconnector.

Routzy CRM - It is a CRM iOS application. It is the single source of truth in this project.

LifeTree dashboard - It is the main web application developed with functionality to connect and sync our database with Routzy CRM and quickbooks. It also keeps track of all the active jobs and invoices.

Invoice - Any quote that is converted to an agreement or contract is marked as invoice.

6. References

Current website production server: <https://www.lifetreewny.com/>

Staging server: <http://137.184.136.1/>

Owner of the business himself

