V0.1

Bethsaida

DOWNTOWN DAILY BREAD

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Background

Downtown Daily Bread is a mission of Pine Street Presbyterian Church in Harrisburg, Pennsylvania. The mission of Downtown Daily Bread is [to provide services to the homeless in Harrisburg, including meals, a day shelter, a night shelter, counseling, among others]. In support of this mission, Downtown Daily Bread would like method to track the usage of the services.

Prior Art

Downtown Daily Bread currently uses an Access database to track service usage by clients. Access is a program created by Microsoft and included in their Windows version of Office. There are quite a few problems with using Access to track client usage:

1. The Access database is stored on a shared Dropbox drive. Employees of Downtown Daily Bread have had issues where concurrent access has caused merging conflicts in the data, meaning a lot of manual clean-up of the corrupt data.
2. Access does not provide an app for Apple computers. Given that some of the staff have Apple computers, this presents a problem when trying to view the database.
3. The data model in Access has not been fully fleshed out, meaning that there is a lot of duplicate information, orphan records, and incomplete records.
4. There is no permission model. There is a desire to protect certain records to be viewed by specific employees, and it is unclear whether or not this is possible to do in Access.

Required Features and Workflows

Based on the current feature set and the shortcomings of the current system, we have compiled a list of features that will be required in this new version of a client tracking system.

- A system of authentication and authorization, where employees can log into the system, will be created. Based on the permissions that have been granted to them by the site administrator, users will have access to various components of the system.
- Users will have information collected, which will be entered into the system, where they will be onboarded.
- A set of services will be created, and users will be associated with these services for specific dates.
- A set of notes, with fine-grained permission control, will be able to be associated with clients and their association with services.
- A set of reports will be specified and generated on a periodic basis.

Bethsaida

Bethsaida is the name that we have given to the software to keep track of clients. According to Luke 9:10, Bethsaida was the location where Jesus fed a crowd of five thousand from just five loaves of bread and two fish. Bethsaida is a replacement for the current Microsoft Access and Dropbox system to keep track of clients of Downtown Daily Bread.

Timeline

The current timeline is to deliver the pre-release 1.0 version for user acceptance testing (UAT) by June 30. This delivery will include access to a Quality Assurance (QA) environment running the software, a user guide, and a list of features that have been completed for this deadline.

Technical Specifications

Bethsaida is an open-source web application built from two separate, but intertwined, components. There is a web-based front-end built-in HTML, CSS, and JavaScript using the popular web framework Angular. The front-end application communicates with the back-end data service, which is written in Scala using the akka-http framework and which stores data in a PostgreSQL database. The back-end and front-end are contained in a docker container that exposes an nginx web server that reverse proxies api requests to the back-end service and serves the static front-end files. The docker container is run on Elastic Container Service (ECS) the Amazon Web Service (AWS) cloud. The PostgreSQL database is Amazon RDS. The database is periodically backed up and stored off site from the AWS cloud.

Environments

There are two environments, a production environment and a QA environment. Code changes are automatically deployed to the QA environment, allowing for users to test before signing off on required changes. The production database is snapshotted and copied to the QA environment once a week. The QA environment contains a distinctive color scheme to indicate to users that data inserted there will not be saved for more than a week.

User’s Guide

TBD.