Prayer Chain Website

A close up of a sign

Description automatically generated

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Date: Monday, May 18, 2020

Version: 1.0

Submitted in partial fulﬁllment of the requirements of Draft Proposal(CST 334)

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# Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Author | Company | Version | Date | Comments |
| Timothy Wright | TIM Software | V1.0 | 05/18/2020 | Initial Draft |
| Timothy Wright | TIM Software | V1.1 | 6/6/2020 | Fixes for submission of Final Draft |
| Timothy Wright | TIM Software | V1.2 | 10/11/2020 | Changed requirements to add additional requirements that came about during the use case modeling.  Also removed some requirements that were Non functional requirements and were just about how the website is laid out.  These changes are not final and will be pending review shortly. |
| Timothy Wright | TIM Software | V1.2.1 | 11/5/2020 | Added Requirement 37 |

# Signatory Page

This document accepted by:

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature (Calvin Caldwell) Date

This document submitted by:

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature (Timothy Wright) Date

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# 1. Introduction

## Purpose

The purpose of this document is to propose a design for a prayer chain website. This document will outline the documents format as well as the proposed project design. Upon acceptance this document will become a living document which will then guide the development, design, implementation and maintenance process.

## 1.2 Scope

Information regarding project management, a general description of the system and system requirements are in the scope of this document. Monetary cost, estimated time to deliver and any other finance related information is out of scope of this document.

## 1.3 Intended Audience

This document is intended for Calvin Caldwell and any other interested parties not listed.

# 2. Project Management

## 

## 2.1 Change Management Procedure

### 2.11 CAT Team

During development of the project any and all changes that are necessary for project completion will be handled by the CAT Team. The CAT Team will consist of Timothy Wright and Calvin Caldwell. Necessary changes will be reviewed by all members of the CAT Team and a determination will be made on whether such changes are necessary and in scope of the project. If a change request is approved the change will be recorded by the CAT Team along with relative information about the change including what the change was, how it will impact the overall timeline of the project and the reasoning behind the change. If a request is denied the CAT team will record what the request was and the reasoning behind why it was denied. All change requests must be approved by the project lead, Timothy Wright.

### 2.1.2 Medium

All changes must be submitted by a member of the CAT Team and must conform to the Change Request Form(CRF) (See appendix)

### 2.1.3 Protocol

Change requests must be processed and decided on within a week of the change being proposed. Upon reaching a decision a member of the CAT Team will notify the requester of the resulting decision by the email provided on the CRF.

### 2.1.4 Impact Analysis

In order to retain feasibility, all changes will analyze the impact to the project. Especially when it comes to the time impact a change will have. If a change increases the time to complete the project by more then is feasible then the change will be denied regardless of the contents of said change.

### 2.1.4 Archive

All change request will be archived and will be saved throughout the completion of this project in the project leads project folder. All changes will be available upon request to those who are part of or overseeing the project. Requests can be made to Timothy Wright.

## 2.2 Software Delivery

Completed software will be delivered to Calvin Caldwell no later than the end of winter term. Delivery will include a link to the host website and all required documentation.

## 2.3 Installation

Installation on the host side will require running an initial sequel server script and installing the website code using IIS. Users do not need to install anything and can view the website from a browser.

## 2.4 Acceptance Criteria

Acceptance criteria will be determined by Calvin Caldwell based on the functionality and completion of the projects as defined in the project requirements.

## 2.5 Documentation and online help

No online help will be provided. All documentation will be written and will detail all required materials and software to host and use this project.

## 2.6 Project Risks

The risks associated with this project are largely time based due to the requirement the project be completed in less than 6 months.

## 2.7 Customer Responsibilities

The customer(user) will be responsible for having an internet capable device that has an up to date browser installed. The customer(host) will be required to have a server capable of running a sequel server in tandem with an IIS server as well as the bandwidth necessary to host such a service.

## 2.8 Status Reporting

Status reports will be sent to Calvin Caldwell on a bi-weekly basis. This status report will contain the following; first, work completed over the last two weeks separated into two sections(one for each week), second work that is scheduled to be completed over the next two weeks also separated into two sections(one for each week), finally, the report will contain an additional section dedicated to explaining issues that were ran into during the previous two weeks. This section will also detail the plan to overcome these challenges as well as a timeline for overcoming the challenge.

# 3. System General Requirements

## 3.1 Project Summary

My senior project will be a replacement for a church’s prayer chain. The application will be a website, this way it is accessible to most anyone and will not be restricted to a certain brand of device such as Apple or Android. The website will consist of 5 main parts. First, the users home page. Second, the prayer request search page. Third, the prayer request creation page. Fourth, the group search page. Lastly, the group home page. All of these are explained in detail below.

Initially a user will have to create an account. This will be accomplished by browsing to the sign-up page. On this page the user will be able to create an account using an email and password. Alternatively, the user will be able to create an account using the “login via Facebook” button. This button will query Facebook for the email the user has provided for their Facebook login. In addition to the “login via Facebook” button. Once an account is created the user will be able to use the site. If an account is not created the user will only be able to view the site homepage, which will have a description of the website and what it is used for, as well as navigate to the login/signup page.

Once the user has created an account there are multiple actions the user can take. If the user navigates to their home page, they will be able to view all the prayer requests they have subscribed, all the prayer requests they have made as all the groups they have subscribed to. When viewing their current prayer requests, this page will allow them to delete any requests that haven’t currently expired. Also, they can view and edit their account information.

If the user has not subscribed to any prayer requests, they can navigate to the prayer request search page. On this page will be all the current prayer requests. The prayer requests from members of their group will have priority and be at the top of the list. There will also be a search feature where you can view prayer from only one of the these categories; health, finance, death, emotional, global, community and other. The user will also be able to search for certain text in the prayer request. There will also be a search feature that allows the user to reduce their search parameters to a specific state.

If a user wants to instead create a prayer request, they can navigate to the prayer request creation page. In this page the user will be able to fill out a form that will then post a prayer request to the prayer request list. The form requires a title, short description of their prayer request as well as a length of time the prayer request shall stay posted, this time limit will be a preset amount of time, for instance 1 day, 2 days or 2 weeks. They also will be able to add a longer description of the prayer request in a larger text box. The user will also need to choose a prayer category, this defaults to other. One last thing is a check box that the user can check if they want the prayer posted anonymously. Once all this information is filled out the user can create the prayer request. This prayer request will now show up on their group’s prayer list as well as the larger overarching prayer list. The user will be able to have a maximum of 50 prayer requests. Once this limit is reached, they won’t be able to create more.

If the user is not part of a group yet or if they wish to join another group, the user can navigate to the group page. This page allows the user to join, leave and create groups. If the user wishes to join a group, they can search through the list of groups available. The user can filter the list by searching by state or searching for a certain string of text. Once the group is found they can click the subscribe button. If the group is an open group, the user will now be part of the group. If the group is closed the user will have to enter the group’s password to join. This way, for instance, a church can give out the group password during a sermon so that only church members can join. There will also be a list of groups the user is currently subscribed to. This list will give the option to the user to leave any of the groups that the user is currently subscribed to. Lastly, the user can create a group. By clicking on the create group button the user will be taken to the group creation page. On this page the user will need to enter a group name, description and will have the option to enter additional information such as location and contact information as well as a group password. They will also be allowed to upload a group picture. Once this is done, they can click on the create button to create the group. If all the information is entered the group will be created with the user as the owner.

Once a user is part of a group, they can navigate to the group page and choose one of the groups they have subscribed to. This will then take the user to the groups home page in which all the group information is displayed. There is also a portion of the page that lists all the current prayer request from member of the group. There will also be a virtual bulletin board in which the group owner or moderators can post current events for that group. There will also be a chat room in which the group members can message each other. This chat room is moderated by the group owner and group moderators. To become a group moderator the group owner must increase the user’s permissions through a group management page only the owner can see.

## 3.2 Relation of Existing Systems

N/A

## 3.3 Hardware Platform Description

### 3.3.1 Website Hardware Platform Description

A computer with 2GB of ram, a Pentium 4 or newer processor that supports SSE2 and 200Mb of available disk space. (user)

A server with at least 20GB disk space, internet access with speeds of at least 20Mb/s download and 5Mb/s upload, 6GB of available RAM, a 64 bit Intel Pentium or compatible processor and .NET Framework.

## 3.4 Software Platform Description

### 3.4.1 Website Software Platform Description

Ability to access the internet. The website will be accessible through the following browsers.

1. Firefox 76
2. Chrome 81

## 3.5 Third Party Libraries

The website will use Microsoft identity for management of user login/sign-up etc.

# 4. Product requirements

## 4.1 Functional Requirements

1. Placeholder(requirement was nonfunctional)
2. The website shall allow the user to create an account and sign in using the following methods
   1. Typical email and password
   2. Login via Facebook
3. Placeholder (requirement was nonfunctional)
4. The user shall be able to navigate to the user home page and do the following
   1. View all their prayer requests
   2. View all the prayer requests they have subscribed to
   3. View all groups they are currently subscribed to
5. When on the user home page shall allow the following
   1. Delete user prayer requests
   2. Delete subscribed prayer requests
   3. Unsubscribe from a group
6. When on the user home page, the website shall provide functionality to edit the users account information including
   1. Display name
   2. Email
   3. Password
7. When on the prayer request search page, the website shall allow the user to view current prayer requests
8. When on the prayer request search page, the website shall prioritize the prayer requests from groups the user is subscribed to. These shall appear at the top pf the list.
9. When on the prayer request search page, the user shall be able to filter the list and view prayer from just the following categories
   1. Health
   2. Finance
   3. Emotional
   4. Death
   5. Pregnancy
   6. Global
   7. Community
   8. Other
10. When on the prayer request search page, the user shall be able to filter the listed prayers using a text box search feature
11. When on the prayer request search page, the user shall be able to filter the listed prayers by state.
12. When on the prayer request creation page, the website shall allow the user to create a prayer request. The information on the page falls into 2 catagories
    1. Required
    2. Optional
13. When on the prayer request creation page, the required information shall be
    1. Title
    2. Short description
    3. Time to live (how long the prayer will stay posted)
       1. 1 day
       2. 2 days
       3. 3 days
       4. 4 days
       5. 5 days
       6. 6 days
       7. 1 week
       8. 2 weeks
       9. 3 weeks
       10. 1 month
       11. 3 months
       12. 9 months
       13. 1 year
    4. Category
    5. Whether the user wants the prayer request posted anonymously
14. When on the prayer request creation page, the optional information shall be
    1. Long description
15. The website shall allow the posting of a prayer under the following conditions
    1. The user has filled out all required information listed in 13-C
    2. The user has less then 50 prayer requests
16. The website shall allow a maximum of 50 prayer requests per user
17. When on the group page, the website shall show the following
    1. Groups the user can join
    2. Groups the user is a part of already
18. When on the group page, the website shall allow the user to do the following
    1. Subscribe to a group
19. When on the group page, the user shall be able to filter the list of available groups by
    1. State
    2. Textbox filter
20. The website shall have 2 group types
    1. Open
       1. Anyone who subscribes is approved
    2. Closed
       1. The user must enter a group password to be approved
21. When on the group page, the website shall give the user the ability to create a group
22. When creating a group the following information shall be required
    1. Group name
    2. Description
23. When creating a group, the website shall allow the entering of the optional information listed below
    1. Location
    2. Contact information
    3. Group password
    4. Group picture
       1. No larger than 400x600 pixels
24. The website shall allow the creation of a group only if all required information outlined in requirement 22 is filled out
25. The creator of a group shall be the owner of the group
26. The owner of a group shall be able to do the following
    1. promote members to moderator
    2. disband the group
27. The system shall allow the user to select a group from the list of subscribed groups on the group page. This shall take the user to the selected groups home page
28. When on a group home page the website shall show the following information
    1. Group name
    2. Group description
    3. Group picture
    4. Group location
    5. Group contact information
    6. Group bulletin board
       1. Area where the group owner and moderators can post upcoming events
29. The website shall implement a chat room or each group.
30. The group chat room shall only be accessible to group members, from the groups home page.
31. The website shall allow the moderators and the owner of the group to moderate the group chat. They shall be able to do the following
    1. Delete posts
32. Allow users to log out
33. Allow users to post in the group chat of a group they are subscribed to
34. Allow user to delete their own chat posts
35. Server admin can delete posts of any group
36. Server admin can disband any groups
37. Group moderatos and owners shall be able to create events and post them to the group bulletin board

## 4.2 Performance

The host website will load all pages without prior cashing in less than 5 seconds. Any database calls that may take longer will provide a message to the user detailing so.

## 4.3 Data Transfer Description

Data will transfer at a speed of at least 1Mbps from the server to the user.

## 4.4 Security/Safety/Constraints

User passwords will be hashed using the built in Microsoft Identity Hashing algorithm. The database will sanitize user inputs to prevent SQL injection attacks.

# 5. User Profiles

The website will have a single type of user. However, these users can create groups and have one of 3 roles, group admin, group moderator or group user. These different roles have different functions; the group admin role is the user who created the group, they have all the privileges of the moderator role as well as the ability to create more moderators. The group moderator role has the ability to delete users posts if they violate the groups policies. The group user role only has the ability to view the group home page and all the associated info assembled there, as well as, create their own posts and view others posts in the chat room.

# 6. Glossary

CAT Team – Change Acceptance Team

SQL – Structured Query Language

# 7. Appendices

**Standard Change Request Template:**

|  |  |
| --- | --- |
| **Change Request** | |
| **Project:** | **Date:** |
| **Change Requestor:** | **Change No:** |
| **Change Category (Check all that apply):**  □ Schedule □ Cost □ Scope □ Requirements/Deliverables  □ Testing/Quality □ Resources | |
| **Does this Change Affect (Check all that apply):**  □ Corrective Action □ Preventative Action □ Defect Repair □ Updates  □ Other | |
| **Describe the Change Being Requested:** | |
| **Describe the Reason for the Change:** | |
| **Describe all Alternatives Considered:** | |
| **Describe any Technical Changes Required to Implement this Change:** | |
| **Describe Risks to be Considered for this Change:** | |
| **Estimate Resources and Costs Needed to Implement this Change:** | |
| **Describe the Implications to Quality:** | |
| **Disposition:**  □ Approve □ Reject □ Defer | |
| **Justification of Approval, Rejection, or Deferral:** | |

|  |  |  |
| --- | --- | --- |
| **Change Board Approval:** | | |
| **Name** | **Signature** | **Date** |
| Timothy Wright |  |  |
| Calvin Caldwell |  |  |

This free Change Request Template is brought to you by [www.ProjectManagementDocs.com](http://www.ProjectManagementDocs.com)