

# Project Scope: Fresh Start Client Messaging App

Document Date: 04/05/2018

## DOCUMENT OBJECTIVE

The purpose of this document is to document and clearly define the work that the GCU Java Cohort team (referred to as THE DEVELOPER) will perform, the requirements and specifications of the Fresh Start Women's Foundation (referred to as THE CLIENT) under which that work will be performed, and the deliverables THE CLIENT will receive within the scope of this project. By accepting this document, THE CLIENT acknowledges their understanding and agreement to this scope of work. Any requirement, which falls outside the specifications in this document, will be considered "Out of Scope" and may require significant changes to the budget or timeline established for this project.

This document (and any presently valid Master Services Agreement or similar document of terms and conditions executed by you and The DEVELOPER) supersedes the estimate, verbal conversations, and any other hard or soft copy documentation provided regarding the work to be performed by The DEVELOPER.

### Document Syntax Notes:

- **Hardcoded:** It is expected that certain items in the application will not be customizable or changeable by the THE CLIENT through the application itself. THE DEVELOPER will refer to these items and elements as "hardcoded." If at some point, following the completion of this project, THE CLIENT may employ third party services to change the application and these elements to their specifications.

## PROJECT OBJECTIVES

The objective of this project will be to develop a web application which can be used by THE CLIENT to send appointment reminders and custom messages to their clients on a client by client basis. At a high level, the application will be expected to have the following functionality:

- **Primary Objectives/Deliverables.** The following items will be considered the core pieces of functionality that the development team will work to deliver in working condition before any other features or functionality are developed.
  - THE CLIENT will be able to log into the application using a common, group ID/password.
  - THE CLIENT will be able to send text messages (SMS) to a single mobile number through an internet accessible web page
  - Documentation detailing use of the application, any service providers used during development and deployment, and the application code itself.
- **Secondary Objectives/Deliverables:** The Secondary Objectives are those items which THE DEVELOPER has identified as non-core functionality and will be delivered if/when all Primary Objectives have been developed, tested, and confirmed as working. These Secondary items are not guaranteed nor confirmed as possible or achievable based on budget, time, or resources. THE DEVELOPER will make the best effort to provide as many of these items as possible.
  - Ability to log into the application for THE CLIENT'S workgroups to prevent unauthorized use.
  - Ability to create, change, and delete approved user credentials for the application.

- Ability for THE CLIENT to send to multiple recipient numbers, although not in predefined groups of numbers, and subject to the messaging provider limitations, terms, and conditions.
  - Ability for THE CLIENT to schedule the transmission of reminders/messages for future dates/times.
  - Automatic response handling for messages, including:
    - Appointment confirmation by reply (e.g. Press 1 for Yes, Press 2 for No)
    - Text Subscription cancellation
  - Ability for THE CLIENT to customize/edit the standard message and “From Group” dropdown fields as desired.
  - A method to review the history or log of sent/delivered messages through the application in a set time frame.
- **Non-Deliverables:** The following items are not planned for inclusion in this scope or project. These have been evaluated by THE DEVELOPER as not achievable based on available budget, time, or resources. Should these items be desired by THE CLIENT, they will have to employ additional resources at a later date.
    - Integration with THE CLIENT’S customer database.
    - Integration with THE CLIENT’S Windows and Outlook servers/systems.
    - Integration with THE CLIENT’S intranet and internal employee network.
    - Storage of, or direct access to, THE CLIENT’S employee or customer information, either through network access or database storage.
    - Predefined groups to which text messages can be sent will not be set up in the application.
    - The developed and delivered application is NOT intended to be a production application and ready for THE CLIENT’S use in a live environment for direct customer contact upon delivery. It is intended to be a prototype solution for the specific business need identified in discussions with THE CLIENT and THE DEVELOPER. While the application may be usable in a limited fashion for presentation and demonstration, full production deployment will be the responsibility of THE CLIENT.

## COMPONENT DETAILS

The following sections detail current expectations and requirements for Primary objectives/components.

### Front End & UI Layout :

The front end of the application (the pages with which THE CLIENT representatives will interact) will be composed of at least two custom designed web pages composed of the fields described in the Objective section above. At time of scope, the following pages are deemed likely to be included:

- Two main application web pages:
  - A MESSAGES page
  - A REMINDERS page
- The Messages page will include the following elements:
  - A text input field that will allow THE CLIENT to include their own comments in the drafted message if desired.
  - A text input field that can be used to include a custom “From” entry (e.g. John Smith, Fresh Start) for the drafted message.

- A dropdown field that will contain predetermined group names that will be hardcoded into the application. These group names are intended to be an alternative or an additional “From” entry to the custom entry in the above item in the drafted message.
- A phone number input field as a Callback number to be included in the drafted message.
- A phone number input field for the client’s contact number to which the drafted message will be sent.
- A “Submit” or “Send Text” button used to send the text message via the application.
- The Reminders page will include all elements from the Messages page and the additional elements below:
  - A dropdown field that will contain predetermined text statements that will initially be hardcoded into the application. These are intended to be used as possible choices for THE CLIENT to send to their customers.
  - A Date input field to be included in the drafted message as part of the appointment reminder.
  - A Time input field to be included in the drafted message as part of the appointment reminder.
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### Texting/Communication:

Reminders/messages sent through the application will only be done on a single number basis (at least initially). THE DEVELOPER expects to provide the functionality for sending messages through the service provider, Twilio.com and their developer API. Two formats of messages will be provided:

- A reminder format including date/time and predefined statements. For example:
  - *This is a reminder of your appointment with Fresh Start on Friday, April 6 at 8:30am from Jane Smith. Please call 480-555-1234 with any concerns or if you need to cancel.*
- A custom message format for sending messages that are purely custom and composed at time of sending. For example:
  - *Hello Kathy, this is Jane Smith with Fresh Start. Please remember to bring your W4, paycheck stub, and any questions with you to our meeting. Please call 480-555-1234 with any concerns or if you need to cancel*

### User Login/Credentials:

While listed as Secondary Objective, THE DEVELOPER will consider this component as first among those Secondary Objectives. It is expected that each workgroup of THE CLIENT will have a unique and password protected login to view and interact with the application. Password changes at a user level may or may not be included in delivered scope. If the Login functionality is provided:

- Three user administration pages:
  - A ‘List Users’ page
  - A ‘Edit User’ page
  - An ‘Add User’ page
- The List Users page will include the following elements:
  - A formatted table listing users in a tabular format
  - Each line of the user table will have a “Change” and “Delete” button
- The Change User page will include the following elements:
  - A text entry field to enter the Login ID

- A text entry field to enter the Password
- A text entry field to confirm the prior Password field
- A “Change” button that will submit the change to the database.
- The Add User page will include the following elements:
  - A text entry field to enter the new Login ID
  - A text entry field to enter the new Password
  - A text entry field to confirm the prior Password field
  - An “Add User” button that will submit the change to the database.

## Deployment Plan

### Application Architecture:

It is expected that the application will make use of the following technologies/frameworks for successful completion of the objectives.

- Front End: HTML, CSS
- Client application: JavaScript, jQuery
- Server Application: Node.js, Express
- Persistent Database: MongoDB Atlas
- Service Providers: Heroku.com, Mongoddb.com, Twilio.com

### Hosting Solutions:

Hosting of the application will be provided by a hosting company that is not decided at time of writing. THE DEVELOPER will be responsible for finding and procuring the host provider and will perform the necessary configuration work to make the application available on the internet for THE CLIENT’S review and testing.

THE DEVELOPER will be responsible for finding and procuring the database provider and will perform the necessary configuration work to make the database available for the application.

### Deployment Team:

THE DEVELOPER will be responsible for the deployment of the application for demonstration and prototyping purposes. THE CLIENT will be responsible for any deployment to a full production solution as they deem appropriate for their business needs.

### Deployment Approval:

THE CLIENT will be responsible for any and all approval to production deployment of the application.

### Backup Solution:

There is currently no backup solution scoped for this project/application.

## Version Control:

THE DEVELOPER will be responsible for delivering all versions of the application until this scope of work is fulfilled. For any functionality or features that are not scoped in this document, a new scope of work will need to be created and agreed upon by both CLIENT and DEVELOPER for subsequent versions.

## Project Milestones

If approval of this Scope of Work is received by The DEVELOPER no later than 4/5, development shall begin on 4/9, and the following milestones will be planned:

- 4/6 - The first of six formal updates to THE CLIENT detailing:
  - Draft versions of the web page layouts
  - General project update
  - High level project timeline
- 4/9 - Completion of working version of the web page (DOM) layout for development and testing purposes.
- 4/11 - Twilio integration; Successful collection of data from DOM into a text message.
- 4/13 - All Primary Objectives in place and working from DOM to client to server to database; updated DOM layouts close to final version.
- 4/16 - Final decision made on the inclusion of Secondary Objectives.
- 4/18 - Fully working and deployed application with all Primary Objectives and included Secondary Objectives.
- 4/20 - Application complete; QA testing begins.
- 4/23 - Testing/Bug Fixes complete; Application deployed ready for presentation
- 4/24 - Presentation to THE CLIENT

## Supported Browsers & Devices

The application will be fully supported only on the browsers and versions listed below and QA will be performed only in those same browsers. Any browsers or versions not listed below are considered out of scope for full operation and functionality of the application

Fully supported browsers :

- Chrome, v65.0.3325.146 (Official Build) (64-bit)
- Safari, v11.0.3

Full support is defined as “All scoped and designed features will function as defined.” Progressive support is defined as “The product will be compatible with this browser, but certain features based on the browser's limitations may not be fully functional. Unless covered by the scope, the site/app will also not be pixel perfect to the original designs.” Supported browsers are assumed to be the versions listed without any add-ons, plug ins, or customizations.

Chrome and Safari browsers update on release channels frequently and automatically. Versions to be tested will be at the time of writing of this scope of work. Defects or functionality changes introduced due to updates to these browsers during the development of this project may not be tested or supported, and may require a scope change to address.

## Assumptions

The following assumptions were made In the process of developing this scope document and will be carried into the life cycle of the project:

- This Scope and resulting development work is based on a historically based estimate of 250-300 text messages sent by THE CLIENT each month.
- THE CLIENT schedules appointments with their customers on 15 minute intervals during business hours.
- THE DEVELOPER will provide an initial demonstration/training session for up to two hours for up to four members of THE CLIENT'S team prior to final approval.
- THE CLIENT will be responsible for providing any and all further training following the initial training session as provided by THE DEVELOPER.
- For privacy and security reasons, THE DEVELOPER has opted not to include any kind of branding or identification for the application, at least initially. Should THE CLIENT desire to have something about the site or application branded with FSWF's information, this can be part of the Primary Objective layout.
- No technology hardware that is provided by either THE DEVELOPER or THE CLIENT for the other, is included in this scope of work. This includes, but is not limited to, smartphones, tablets, PCs, servers, or associated peripherals. Each party is responsible for their own devices for any purpose deemed necessary to fulfill this scope.
- Upon turnover of the application and all committed documentation/code, THE CLIENT will be responsible to provide means of payment for continued use of the application to any and all service providers that are required for full functionality. Any means of payment used by THE DEVELOPER will be cancelled and/or discontinued 10 business days after turnover and delivery.
- The availability and use of any third-party APIs or databases that are used in the development or final implementation of the application are NOT the responsibility of THE DEVELOPER to maintain, guarantee, update, or troubleshoot. Any unforeseen or unexpected changes made to these third party resources by their owners may require an unknown amount of design, development, and/or troubleshooting. Work/time related to these changes are NOT included in the scope of work.

## Technology Requirements

- Windows PC w/ Chrome internet browser
- Apple PC w/ Chrome or Safari internet browsers
- Internet access

## Deployment/Implementation

The DEVELOPER assumes no responsibility for the success, failure or profitability of the workflows, methods, process, or business strategies created by THE CLIENT, as used with \the delivered application. It is the sole responsibility of THE CLIENT to implement or deploy the application in the manner that they deem appropriate.

## Third-party Materials

If this project includes the use of client-provided or third-party materials, The DEVELOPER has made our best estimate of effort required to utilize these assets based on previous experience. The DEVELOPER reserves the right to adjust scope or estimate to accommodate any materials received because THE DEVELOPER has not yet reviewed or requested these materials.

## Approvals

By signing below, both THE CLIENT and THE DEVELOPER agree that project scope is as is defined within this document and that objectives, deliverables, specific work, assumptions, timelines, and exceptions are all acceptable to both parties. Any other expectations or agreements, written or verbal, are not binding as commitments for either party. Any agreed upon changes of the scope after this document is signed, will require a separate agreement/contract, and may be subject to billing or additional charges.

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CLIENT Approval

Fresh Start Women's Foundation

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DEVELOPER Approval

GCU Full Stack Immersive Bootcamp

# Project Scope Appendix 1

## Application Cost Estimates

In order to provide the reliable and consistent sending and receiving of text messages, THE DEVELOPER will be utilizing the services of Twilio.com. Twilio provides a variety of voice, message, video, and other telecommunication services for a variety of reasons including software development and application implementation. Unfortunately, Twilio's services are not free, but are reasonably priced. The retail pricing for their services is listed below and a range of possible monthly costs based on monthly text volume. THE CLIENT should review this information to be prepared when/if they wish to take the application into full production use.

Service	Monthly Cost	100 txts/mnth	500 txts/mnth	1000 txts/mnth	2000 txts/mnth	5000 txts/mnth
Send/Receive Texts to Local/Toll-Free Numbers	\$0.0075	\$0.75	\$3.75	\$7.50	\$15.00	\$37.50
Picture Text Messages	\$0.02	\$2.00	\$10.00	\$20.00	\$40.00	\$100.00
Monthly Phone Number Rental (Required)*	\$1.00	N/A	N/A	N/A	N/A	N/A


\* In order to send/receive messages through an application at least one number must be rented from Twilio. The more numbers rented, the more texts that can be sent simultaneously through their service.

Further details on the pricing structure can be found at: <https://www.twilio.com/sms/pricing/us>

For further consideration, specifically for Fresh Start Women's Foundation, there is a charitable branch of Twilio that allows eligible non-profit organizations to apply for special pricing and a \$500 kickstart credit for Twilio services. Should FSWF apply and be accepted into the program, it would receive a 25% discount on the above pricing structure and additional benefits. More information on this and additional benefits can be found at <https://www.twilio.org/>. Any application or follow-up to this information is the sole responsibility of FSWF.

Additionally Heroku will be the web hosting provider. Based on THE DEVELOPER'S research, the following two options are available for use by THE CLIENT. It is recommended that THE CLIENT investigate hosting options on their own to ensure this is the optimal pricing for their needs. More information on Heroku can be found at <https://www.heroku.com/pricing> and in the image below. Any application or follow-up to this information is the sole responsibility of THE CLIENT.





### Free

Ideal for experimenting with cloud applications in a limited sandbox.

CORE PLATFORM FEATURES


SLEEPS AFTER 30 MINS OF INACTIVITY

USES AN ACCOUNT-BASED POOL OF FREE DYNOS HOURS

CUSTOM DOMAINS

512 MB RAM | 1 web/1 worker

Free



### Hobby

Perfect for small scale personal projects and hobby apps.

CORE PLATFORM FEATURES

NEVER SLEEPS

FREE SSL & AUTOMATED CERTIFICATE MANAGEMENT FOR CUSTOM DOMAINS


APPLICATION METRICS

MULTIPLE WORKERS FOR MORE POWERFUL APPS

512 MB RAM | 10 Process Types

\$7 per dyno/month  
prorated to the second

PROFESSIONAL



### Standard

1X2X

Enhanced visibility, performance, and availability for powering your professional applications.

ALL HOBBY FEATURES +


SIMPLE HORIZONTAL SCALABILITY

THRESHOLD ALERTS

PREBOOT

LANGUAGE RUNTIME METRICS

512MB OR 1GB RAM



### Performance

M L

Superior performance when it's most critical for your super scale, high traffic apps.

ALL STANDARD FEATURES +

MIX WITH STANDARD 1X, 2X DYNOS

DEDICATED

AUTOSCALING

2.5GB OR 14GB RAM

∞ Process Types

✓

\$25 - \$500 per dyno/month  
prorated to the second