

Software Plan

Requested By: Ms. Mary Patridge-Brown
Ms. Roberta Sandler
Co-Directors Grassroot Givers
Grassroot Givers' Community Store

SMARK Solutions

Be intuitive. Be efficient. Be SMARK.

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**Grassroot Givers'
Software Plan**

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System Definition

1.1 Problem Definition

Grassroot Givers is a non-profit organization devoted to bridging the gap between those in need and those seeking to donate. One of the ways in which this is achieved is through the Community Store within their facilities at the GWU Center in Albany, NY. The mission of this store is to create a boutique-like atmosphere so that customers can “shop with dignity”. Co-directors of Grassroot Givers, Mary Partidge-Brown and Roberta Sandler would like to develop an easy to use, web-based application to supplement their everyday functions of the store.

1.2 System Justification

This purpose of this system is to provide technology to enhance the efforts of Grassroot Givers without altering the already successful system. By creating simple profiles and an organized database, all the information on customer history, store inventory and donations will be kept for easy retrieval. Well-kept and readily accessible records will allow for less time spent on logistics, and more time spent on advancement within their mission.

1.3 Goals for the System

The goal of this system is to keep track of the Community Store’s history. Knowing customer history, allocation of in-demand items, and donor inventory will give documented results that can be analyzed to aid the store’s growth. Using this system will be straightforward and simple to accommodate users of different technology levels.

1.4 System Constraints

The system’s interface should be user-friendly, compatible across varying browsers, completed within the time frame of the school year, and simple for low maintenance and quick data entry.

1.5 Provided Functions

The system’s functions will include:

- Initial customer entry form
- Community Store item inventory form
- Customer and donor profiles
- Database for storing history, customer and donor data, and item inventory

1.6 User Characteristics

There will be one user account for this system who will be able to:

- Create donor profiles
- Create customer profiles
- Insert newly-donated items into the database
- Search items currently in inventory
- Look up information regarding inventory items

1.7 Developmental/Operational/Maintenance Environments

Developmental Environment:

Windows Computer

Operating System: Windows 7 Enterprise (x64) Service Pack 1
 Processor: Intel Core i5-3470 @ 3.20 GHz
 Ram: 6GB
 HDD Capacity: 499 GB

Macintosh Computer

Operating System: OS X Lion 10.7.5
 Processor: Intel Core i5 @ 2.5 GHz
 Ram: 4GB
 HDD Capacity: 378 GB

Operating Environment: This information has yet to be determined by the client. This application will be web-based, so it will operate from an off-site server. The application is designed to be as simple and easy to operate as possible, to allow anyone to easily use it.

Maintenance Environment: Maintaining this application only involves ensuring that the information is correct and up-to-date, as server maintenance is completed by the company that houses it.

1.8 Solution Strategy

Our strategy is to follow the software development lifecycle to both create and manage our application. This ensures that we complete our checkpoints and milestones, and satisfy our client's needs. For more in-depth solution strategy notes, see section 2.1.

1.9 Priorities of the Application Features

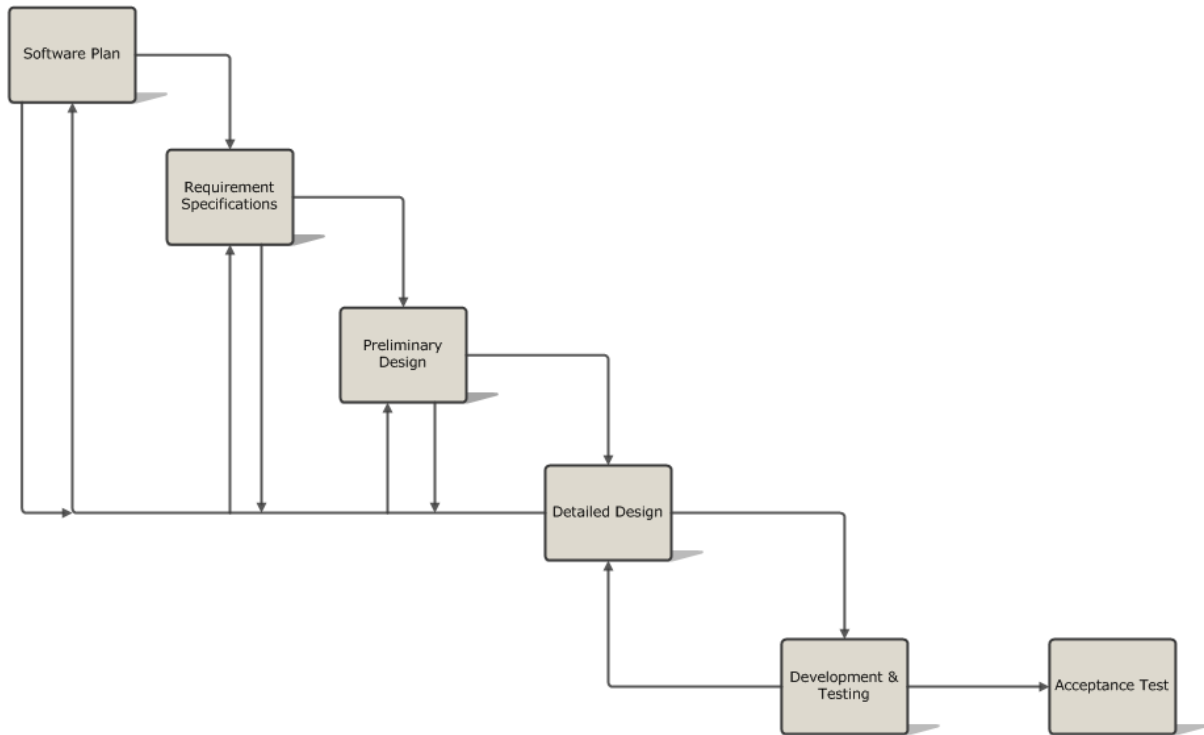
The main priority of the application is simplicity. This application features a very simple user interface that allows our client to improve their current method of inventory management. This simple and easy-to-use interface allows anyone of any technical skill to operate the application with great ease and efficiency.

1.10 Application Acceptance Criteria

SMARK Solutions is working to create an application that goes above and beyond the expectations of the clients, Dr. Fryling, and Dr. Lim. The best and most efficient solutions possible will be created to help solve our client's problems. Together we can be intuitive, be efficient, be SMARK.

Project Plan

2.1 Project Management & Development Model



This diagram was made using Microsoft Visio

Software Plan

SMARK Solutions will continue to meet with Ms. Mary Partridge-Brown and Ms. Roberta Sandler to determine the best software solution that meets their particular needs. The team will meet to define a software plan so SMARK Solutions can move forward to the next step in the process, requirement specifications.

Requirement Specifications

To better understand the problems that Grassroot Givers is dealing with, the team will continue to have meetings with the client. During these meetings the main problems that need to be solved will be outlined. Discussing the problem at hand will allow the team to understand what specifications are necessary in the software needed by Grassroot Givers.

Preliminary Design

Once the team creates a software plan and determines the requirement specifications, SMARK Solutions will be able to establish a preliminary design to follow. During this part of the process the team will focus on meeting the requirement specifications as well as foreseeing other problems at hand.

Detailed Design

SMARK Solutions will next present the design to Ms. Mary Partridge-Brown and Ms. Roberta Sandler to ensure it meets their expectations and needs. If the clients are pleased with the preliminary design, the team will revise the design so that it is more detailed.

Development & Testing

During the development process the team will be testing the software along the way in order to ensure a well-developed finalized product. During the testing process SMARK Solutions will find and get rid of any errors, as well as think of improvements that could be made to better satisfy the customer’s needs.

Acceptance Test

Once the software is developed and tested thoroughly, the final product will be presented to the clients. The clients have the option to accept the work completed or reject it if it does not successfully meet the clients’ needs or expectations.

2.2 Company Organization



Name	Email
Baisley, Salvatore.....	sa26bais@siena.edu
Egan, Kathryn	dj05egan@siena.edu
Grant, Anna.....	ab05gran@siena.edu
Martin, Ryan.....	rc18mart@siena.edu
Ritchie, Mary.....	me18ritc@siena.edu

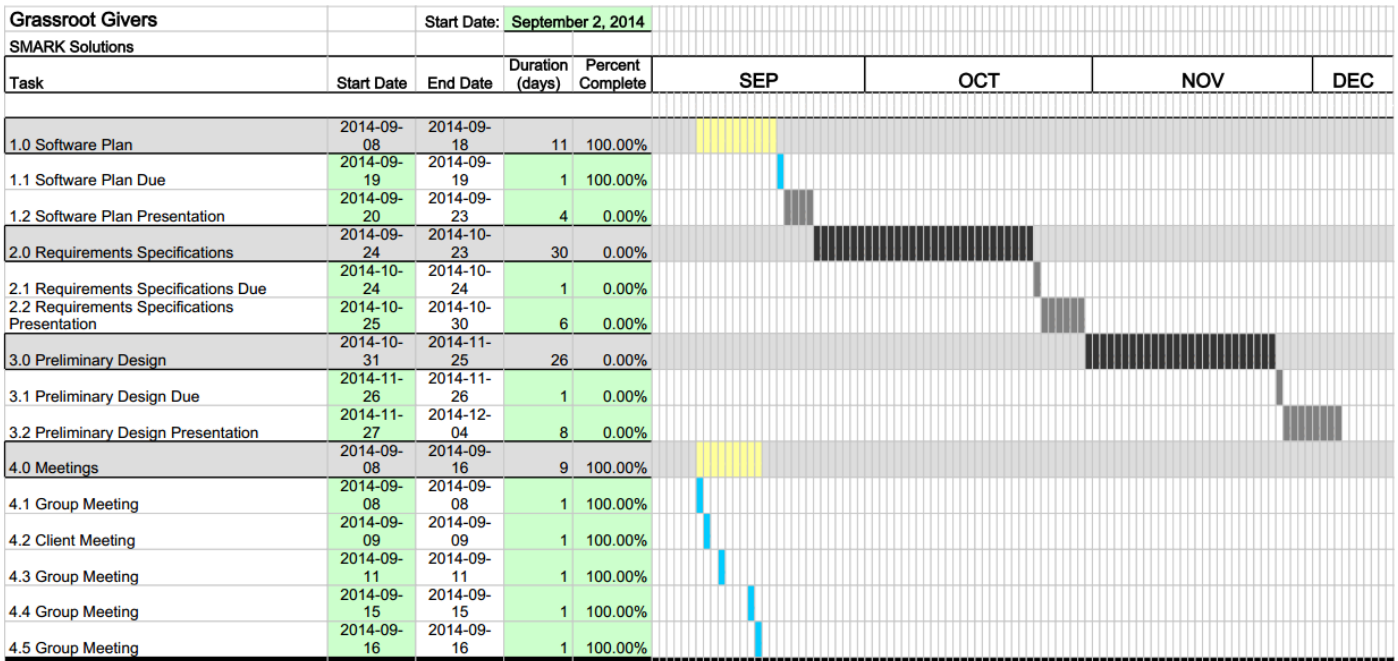
SMARK Solutions has the following Siena CS students as a team:

Baisley, Salvatore	<p>Database Manager Responsible for conceptualizing the database for SMARK Solutions, as well as executing the implementation of the database. Must make sure that after the project is complete the client has some means to be able to upkeep the database.</p>
Egan, Kathryn	<p>Lead Programmer In charge of the underlying architecture of SMARK Solutions' software and is the connection who translates what the client needs into code. Needs to understand a wide variety of programming languages, as they are a part of each aspect of the project.</p>
Grant, Anna	<p>Team Lead Maintains the connection between the group and the clients. Also ensures that the group stays on task and is completing their parts before the deadline is reached. Schedules all group and team meetings.</p>
Martin, Ryan	<p>Chief QA/ Testing Ensures the ability of the product to meet the expectations of the clients. Tests all aspects of the project during the development process to ensure that there will not be any major bugs which would hinder the completion of the product. This includes load testing the database and testing the front end for issues that the users might encounter.</p>
Ritchie, Mary	<p>Webmaster In charge of setting up the website for SMARK Solutions. Additionally will serve an important role in the execution of the Grassroot Givers project, at we hope to have the software contained entirely on a website application.</p>

“Providing technologies to make what matters most to you possible, that’s SMARK.”
- The SMARK Solutions team

SMARK Solutions is devoted to providing the exact product which is desired by the client, as well as implementing additional features designed to ease the transition into using the product and operating the software. This will be achieved through a strong work ethic from each of the members and working as a team to be able to utilize the individual talents of the group to create the best software for the client.

2.3 Development Schedule



SMARK Solutions hopes to be able to have at least two group meetings a week in addition to at least one client meeting per week. This is to ensure that the group has the ability to stay on task during the course of the project and that we do not stray far from the desires of the clients. Above in the Gantt chart, the due dates of each part of the project through the course of the next 3 months are stated. The goal of the group is to meet each of the deliverable portions of the project on time, ensuring successful completion of the project.

2.4 Project Control

SMARK Solutions hopes to to achieve successful completion of its software by keeping to the schedule we were given at the start of the project. The plan is to have a minimum of two group meetings a week, as well as at least a client meeting every week. As the clients do not have the technology to video chat, most meeting will be held at their location in order to discuss the details of the project. The main source of communication between the members of the group, between the group and the clients, and between the group and Dr. Fryling and Dr. Lim is Email. Additionally, we will use Google Docs to keep track of the notes from the client meetings. This enables the client and the group members who were unable to attend the meetings to review the notes and ensure that they reflect the opinion of the clients.

2.5 Tools and Techniques

The main tool that will be used is Notepad++. In addition, environments such as Eclipse may be used for programming purposes. As the software needs become more detailed the tools and techniques needed will become prevalent.

2.6 Programming Languages

The programming languages that will be used are HTML, CSS, and PHP for web-based parts of the product, in combination with SQL for database manipulation, and Javascript for more visual or ease-of access implementations.

2.7 Testing Requirements

SMARK Solutions will be running tests on the front end for ease of access, as well as technology limitations for client-side access. There will also be tests run on the back end to make sure the database will work as expected and account for large amounts of traffic or data storage if needs be.

2.8 Supporting Documents Required/Time of Documentation

Title of Document	Date of Delivery	Date of Presentation
Software Plan	Sept. 19, 2014	Sept. 23, 2014
Requirement Specification	week of 10/21	October 28, 2014
Preliminary Design	Nov. 26, 2014	Dec. 2, 2014
Detailed Design	Spring 2015	Spring 2015
Acceptance Test	Spring 2015	Spring 2015

2.9 Method of Delivery

The documents above will be finalized for delivery on their respective dates of delivery. The clients will receive a hard copy of all documents. The SMARK Solution team website will also host these documents as they are released.

2.10 Sources of Information

The information will be gathered from meetings with the clients for details on project requirements. Technical knowledge on systems that are used will also be required this will come from documentation on those specific systems or languages.

Appendix : Team Resumes