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# **Surgery on Sunday-Louisville**

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## **The Solution Squad Vision (Small Project)**

**Version <2.0>**

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## Surgery on Sunday-Louisville

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### Revision History

Date	Version	Description	Author
09/18/2017	1.0	First Draft	<Solution Squad>
10/01/2017	2.0	Second Draft	<Solution Squad>

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## Vision (Small Project)

### 1. Introduction

Surgery on Sunday Louisville is in need of a new business management system. The current business management system involves the business holding much of their data in excel workbooks. This is not ideal, considering sorting through these workbooks can be time consuming and finding relations between workbooks is nearly impossible. SOSL needs a new system that provides them with a database to hold information about their volunteers and donors. This system will work with their current website. Any donor or volunteer information will be transferred directly to the new database.

### 2. Positioning

#### 2.1 Problem Statement

The problem of	SOSL lacks a relational database, and needs changes to its website to optimize donations and volunteer participation.
affects	SOSL's event organizer and all potential volunteers and donors, as well as the users of the websites.
the impact of which is	Scheduling events is difficult, and the organization is likely losing out on potential donations.
a successful solution would be	Allow SOSL to hold more events each year with less effort

#### 2.2 Product Position Statement

For	Surgery On Sunday Louisville
Who	Needs a new business management system
The (business management system)	is a system that helps SOSL run their business more efficiently.
That	Provides SOSL with a database that will store volunteer information and donor information. This database will receive input from the SOSL website and allow the company to sort through volunteers more easily.
Unlike	G-Suite (the current system in place at SOSL) that depends on excel workbooks to hold data.
Our product	Will allow SOSL to grow without worry.

### 3. Stakeholder and User Descriptions

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## 3.1 Stakeholder Summary

Name	Description	Responsibilities
Barbara Martin	Project Coordinator	Monitors the project's progress Approve funding Ensure the system will include all necessary requirements
Jordan Licatta	IT Coordinator	Ensure the system will be maintainable & functional with minimal training.
Solution Squad	Project Team	Ensure the system implemented will increase visibility of the organization Ensure the system is user-functional, with all requirements requested by the client Communicate progress with project coordinator Ensure the system that is implemented adds value to organization Ensure the system provides a fluent flow of content from organization to user
Volunteers	Clinical/Non-Clinical	
Patients	Customers	Provide feedback for SOS-Louisville Improve visibility of organization Reap the benefits of new system implementation

## 3.2 User Summary

Name	Description	Responsibilities	Stakeholder
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<i>Admin</i>	<i>Barbara Martin</i>	<i>Coordinates work</i> <i>Captures details</i> <i>creates events</i>	
	<i>Jordan Licatta</i>	<i>Produce Reports</i> <i>Collect Data</i> <i>Maintain website</i> <i>System Maintenance</i>	

Name	Description	Responsibilities	Stakeholder
<i>End-User</i>	<i>Volunteers</i>	<i>Register as volunteer</i> <i>Sign-up for events</i>	
	<i>Donors</i>	<i>Contribute to SOS</i>	<i>The project team is the stakeholder who represents the donor's best interest</i>

## 3.3 User Environment

The main user of the system is Dr. Erica Sutton, the president and CEO for Surgery on Sunday Louisville. Another critical user of the system is Barbara Martin. She is responsible for setting up all of the surgical events. It currently takes her about 30-45 days to organize an event. Organizing an event involves manually going through multiple excel spreadsheets in an effort to coordinate doctors, clinical volunteers, non-clinical volunteers and patients. This can be a difficult task because some hospitals who host events will only allow doctors and clinical volunteers from their staff to work in the hospital. All of the patient information kept by Surgery on Sunday must be kept and handled in compliance with HIPAA and is currently stored in REDCap. Surgery on Sunday Louisville uses a 2015 MacBook with OS X and plans to stick with apple products in the future. The main applications used by Surgery on Sunday Louisville are Safari, Adobe Acrobat, and Microsoft Office applications like Word and Excel. Their website is currently through Wordpress and they would like to stick to that. Our proposed changes to their website should all easily integrate into Wordpress.

## 3.4 Summary of Key Stakeholder or User Needs

Need	Concerns	Current Solution	Proposed Solutions
Map volunteers to database	This is a problem	It is solved by manually entering	Barbara would like for the volunteer forms to be

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	because the current volunteer form isn't compatible with excel to automatically update volunteer information into the spreadsheet.	volunteer information once the form is submitted.	mapped directly to the individual volunteer databases to cut down data entry, as well as save her valuable time.
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Need	Priority	Current Solution	Proposed Solutions
Donation alternatives	The only platform currently available for donations to SOS is through paypal which takes a percentage of every donation.	There is no current solution.	The user and stakeholder envision multiple alternatives for donors, as well as a main platform who has a minimal kickback.

Need	Concerns	Current Solution	Proposed Solutions
Manual Event Scheduling	Barbara currently spends 30-45 days scheduling an event, which takes her away from applying for grants and additional fundraising.	There is no current solution other than manually scheduling the events.	Barbara as the key stakeholder for this problem envisions that the volunteer databases will communicate with each other and be able to quickly identify which volunteers, clinical and non-clinical are eligible to participate in an event.

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Need	Concerns	Current Solution	Proposed Solutions
Unilingual website	A majority of SOS patients are from a spanish-speaking descent and the current website does not accommodate the spanish speaking community.	SOS has implemented a multilingual volunteer form but have yet to transition their website.	Volunteers as the users would benefit the most from this improvement and would allow SOS to reach an even broader audience.

Need	Concerns	Current Solution	Proposed Solutions
Lack of social media presence	This is a problem due to the influence social media has on our everyday lives. A stronger social media presence would improve the	Social media hyperlinks are embedded on the current site but are difficult to find.	The Solution Squad envision that these hyperlinks will be located on the main page, as well as updating current posts on the website from people who mention or tag SOS on social media. We envision that a stronger social media presence will increase volunteers and donations.



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	visibility of the organization, as well as increase volunteers and donors		
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## 3.5 Alternatives and Competition

Surgery on Sunday Louisville has three potential alternatives. The first alternative is that they could continue on using the same business practices they use now. The advantages to this are that it costs nothing to keep doing the same things they have been and it requires no implementation or training. The disadvantages to not changing their business process are that the process of organizing events will remain slow and difficult, and they will likely miss out on donations and potential volunteers.

The second alternative for Surgery on Sunday Louisville is to plan, design, and implement changes to their system on their own. The advantages to this choice are that they have the best understanding of their needs, and they could keep costs down by doing it themselves. The disadvantages of this choice are that they are limited by the knowledge of their current staff and may not be able to handle the planning and designing needed in order to get a new system in place. Choosing to do it own their own may also create new IT problems if their staff makes any mistakes.

The third alternative for Surgery on Sunday Louisville would be to hire another company to address their business needs. The advantages to this option are that their needs would be met professionally and the changes implemented would likely be best practice solutions to the problems with their current system. The main disadvantage to this option is that the cost would likely be well beyond Surgery on Sunday Louisville's current budget.

## 4. Product Overview

### 4.1 Product Perspective

The new system is going to work with the company's current website. The website will allow potential volunteers to fill out an application. The information from this application will go into the database that will be constructed with the new system. This will allow SOS Louisville to sort through their potential volunteers in an easier way.

### 4.2 Assumptions and Dependencies

We are assuming that the IT environment will be within the Mac OS operating system. We are also assuming that the business will be willing to replace the current G-Suite business management system with the new system we are building for them. We are also depending on the data currently held in excel workbooks being organized in a somewhat sensible manner so we can convert them to the new database.

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## 5. Product Features

The important feature would be a database that can organize,, store, and retrieve donor, patient and volunteer information from the website in an efficient manner. Many features will be added to the website in order to improve performance for Surgery on Sunday. It will have links to social media pages in order to spread news of programs and events through the online community. This will help Surgery on Sunday gain a bigger following. Another feature would be utilizing patient testimonials to showcase patients' support for the organization in hopes of gaining more donations. Another key feature would be adding a spanish translation button to change the text from English to Spanish considering the demographic of Surgery on Sunday's patient are spanish speakers. Adding a non-binary gender option would be another feature added to the website when volunteers and patients are identifying their gender.

## 6. Other Product Requirements

Since we are assuming SOS will be keeping the Mac OS environment to manage the business, the new system will need to be compatible with the Mac OS operating system. It would also be useful to include as much documentation as possible to help Jordan understand the new system fully. The system should also maintain a level of simplicity that will be easy for Jordan to grasp, considering he does not have a strong IT background. The system must also be compatible with the Wordpress environment so SOS can keep the same website. The system must also be feasible within the \$3,000 budget that is allotted to IT expenses. Keeping the system simple and cost-effective is our main priority. SOS has a one-person IT department and we do not need to increase his workload that is already heavy. Our goal is to decrease the workload without a substantial increase in costs.

## 7. Economic Feasibility

**Narrative:** Economic feasibility addresses the justification for the project. We analyze if the benefits outweighs the costs when implementing this project. A cost-benefit analysis is performed in order to measure this, showing the net present value of the project as well as important figures such as the breakeven point and the return on investment.

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Surgery on Sunday: Cost/Benefit Analysis								
Benefits								
Time		0	1	2	3	4	5	
Grants		-	58,000	59,160	60,343	61,550	62,781	301,849
Donations		-	9,778	9,973	10,173	10,376	10,583	50,883
Fundraising		-	33,594	34,266	34,951	35,650	36,363	225,706
Totals			101,372	103,401	105,467	107,580	109,733	\$ 527,552
PV of Benefits			97,240	95,142	105,467	91,081	109,733	
PV of all Benefits			97,240	192,381	297,848	388,929	498,661	
Costs								
Time		-	1	2	3	4	5	
Annual								
Domain		47	48	49	50	51	52	299
Host		47	48	49	50	51	52	299
Braintree		-	1,306	1,358	1,385	1,412	1,439	6,900
Labor (45 hours)								-
Analyst @ 35.79/Hr		1,611	-	-	-	-	-	1,611
Web Developer @ 27.58/Hr		1,241	-	-	-	-	-	1,241
Project Manager @ 30.47/Hr		1,371	-	-	-	-	-	1,371
Database Admin @ 34.32/ Hr		1,544	-	-	-	-	-	1,544
Totals		5,862	1,403	1,457	1,485	1,514	1,544	\$ 7,403
PV of Costs		5,862	1,346	1,457	1,485	1,514	1,544	
PV of all Costs		5,862	7,208	8,664	10,150	11,664	13,208	
Yearly NPV		(5,862)	95,894	93,685	103,981	89,566	108,188	\$ 485,453
r=	4.25%							
Cum. NPV		(5,862)	90,032	183,717	287,698	377,265	485,453	\$ 1,418,304
ROI (%)	7026%							
B/E Point		(101,756)	(3,653)	79,736	198,132	269,076	-	
		2.02	years					