



## **Inception Phase Specification**

**By: Tomahawk Group**

## Executive Summary

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The Land O'Lakes Area Artisans (LOLA) project is a critical element to expand the reach of art education and enjoyment with more of the community. The purpose of this project is to utilize automate processes to maximize personnel resources and increase collection of useful data. By expanding the processes to allow for data collection, online pay options, a volunteer forum, and media page. These web pages will increase productivity by relieving manual processes. The data collection is a byproduct of the web pages and will make data available for analysis to meet the community need and allow for more accurate data to process for applicable grants thereby potentially increasing revenue.

The Tomahawk Group mission is to design an efficient, cost-effective website to address LOLA's business needs through systematic analysis. Tomahawk Group is a comprehensive group bringing a unique vision to your solution. With a diverse group that has an experience within the non-profit sector, web development and system design.

Our recommendation for expansion would be to redevelop the current website.

- Online student registration
- Online pay options
- Media page to include photo management
- Volunteer forum
- Event management with bar coded tickets
- Feedback forum by survey software
- Data collection

With these elements instituted and a slight increase of software and hardware, the LOLA will expand its reach into the community and through the state enabling the enrichment of the community. These processes should increase collection of the data, make it easier for volunteer and outside communication, and ultimately allow for the collection of the data for accurate grant reporting and analyzing the needs of the community.

## System Request – Land O’ Lakes Area Artisans (LOLA)

### **Project Sponsor:**

Name: Beth Brown, Stacey Adams, Land O’ Lakes Area Artisans

### **Business Needs:**

Currently LOLA is keeping all records of classes, events, donations, volunteers, and grants using Excel spreadsheets and paper documents. There are many limitations to their current system and the potential for data loss is very high.

The project is aimed at obtaining systems that will improve their data collection and management of these different parts of their business.

### **Business Requirements:**

The improved LOLA system will:

- Provide online management for classes
- Provide online management for events
- Capture donation information online
- Capture volunteer information online
- Capture important information to be used for grants

Additionally, everything could be integrated into one easy-to-use system with an easy-to-understand graphical user interface.

### **Business Value:**

- If two extra people signed up for every class, making the new minimum enrollment 10 students per class, the resulting profit made in one year would increase to \$19,500 from \$12,300.
- If LOLA could know how many people would be attending events and make sure that only people who have purchased tickets would be allowed admission.
- If LOLA had an increase of just two recurring donations per year, that could increase donations from \$200 the first year, to \$400 the following year, etc.
- If LOLA could keep better track of their volunteers. The supply needs of the organization could also be posted in order to solicit donations of the listed items. The resulting donations would decrease the amount of supplies LOLA would have to purchase, which in turn would increase the organization's profits.
- Lacking the ability to capture information online, LOLA could not compile the information needed to apply for grants. Being able to apply for grants could potentially mean more money for LOLA.

### **Special Issues:**

- Because of LOLA's geographical location, the organization has reliability issues with both its internet service provider and cellular phone service. The system would have to be hosted remotely instead of on-site.

# **LOLA Assessment Vision (IT Process)**

**Version 1.1**

## Revision History

Date	Version	Description	Author
01/17/2015	1.0	Initial write up	J. Baribeau
01/28/2015	1.1	Revision	J. Baribeau

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# **Vision (IT Project)**

## **1. Introduction**

The purpose of this project is to introduce our group's conceptual business process design. Land O'Lakes Area Artisans (LOLA) largest challenge in such a small community offers is the effort to be everything to everyone. Clearly from their past revenues they have shown a continuing growth and we would like to foster that continuing growth. We would like to help LOLA maximize their current resources to optimize benefactor's experience, bring in more revenue and enrich the LOLA community. We provided an analysis of current issues that we feel technology can contribute an improved process for facilitating an increase in donations, media coverage, volunteering, students and/or benefactors. According to the LOLA mission, they are dedicating their efforts to grow and flourish art enrichment to the Northwoods of Wisconsin and the Upper Peninsula of Michigan (LOLA Community). LOLA's goals are to provide space for artists to flourish, increase quality of life with art as well as award scholarships for local residents. With their efforts for a rapid growth LOLA has reached their functional capacity for operation. To utilize the momentum, we think there is a need for an automation of certain current procedures to allow for more time in seeking other avenues for revenue generation and fundraising.

### **1.1 References**

Artisans, Land O'Lake Area. [www.lolaartswi.org](http://www.lolaartswi.org). 2011. Website. 26 1 2015.  
Dennis, Alan, Barbara Haley Wixom and David Tegarden. System Analysis Design UML Version 2.0. Danvers: John Wiley & Sons, Inc, 2012. Textbook.  
Kelley, Anna. Land O'Lakes Area Artisans IT Project Assessment. Assessment. Land O'Lakes: LOLA, 2014. Paper.

## **2. Positioning**

### **2.1 Problem Statement**

There are three categories that can increase the revenue stream to continue and expand Lola's contribution to the community enrichment. The protocols for donation should aim for ease and diversity in giving as well as an optimized class registration process. The maximization of these protocols will enable easier data generation for the fulfillment of grant writing report requirements. However, the current donation system is an inefficient use of the organizations time and resources. The opportunity lost from not having the online donation form leads to a



loss in potential donations as well as increased man hours that can better be served by completing more critical tasks. The class registration system is cumbersome and inefficient leading to a loss in revenue from a student spot left open from an unknown cancellation or an overbooking with insufficient space. In consequence with data lost from non-collection, reporting for a major revenue stream from grant writing is left on the table for others to have. By minimizing the work hours for grant writing, LOLA can have the potential to double their current grant writing revenue stream.

## **2.2 Product Position Statement**

The biggest challenge for a community center is the ability to provide many things to many people. LOLA serves the Waterstreet, MI and Land O'Lakes community creates opportunities for people of all ages to enjoy, learn from and participate in the arts. The implementation of the new business processes has the potential to increase multiple levels of the revenue meanwhile streamlining efforts for easy reporting and clarity for artists and students.

## **3. Stakeholder and User Descriptions**

The users are the employees and the Board of Directors of Land O'Lakes Artisans. They will utilize the new business process to benefit the increase of processing payment and communicating with volunteers, fundraising and data reporting.

The external stakeholder is the community of Land O'Lakes and Waterstreet, MI. The art community center further develops the enrichment and art opportunities.

In addition, another external stakeholder are the local and visiting artisans as their contributions create and income provided by the classes in addition to any artisan items sold from the continued public exposure. If there are no classes then the visiting artisans would lose income.

Volunteers are external stakeholders that contribute their time and support. Their contribution is critical to the success of the organization.

### **3.1 Stakeholder Summary**

Below is a summary of potentially non-user stakeholders

Name	Description	Responsibilities
Volunteers	Voluntary staff for support	Contribute time to the organization's mission
Community	Benefactors of the artisan programs	Enriching the lives of the community by creating a learning environment and developing new skills
Board of Directors	The Board will support the work of LOLA and provide mission-based leadership and strategic governance. While day-to-day operations are led Program Director. Specific Board Member responsibilities include:	Approve annual budget Audit reports & material business decisions Review performance of the Program Director Ambassador for the organization Ensure commitment to a diverse board. Review reports for Annual Report and advisory notations.

### 3.2 User Summary

Name	Description	Responsibilities	Stakeholder
Program Director	oversees the coordination and administration of all aspects of an ongoing program including planning, organizing, staffing, leading, and controlling program activities	Monitors project progress Approves funding Grant Writing Culminates data for grant Submission: Captures details Produces reports	User

Employees or Volunteer Office Staff	Employees/Volunteer s execute the plans created by the board of directors and program directors.	Input information into web forms for donations.  Monitor class size from online enrollments	User
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### 3.3 User Environment

A small office environment with potentially 3 or more employee or volunteer users on a laptop.

In a broad spectrum the task cycle starts with the media outreach via multiple venues and carries to the response by the community by registering for the class or attending an event thusly generating data for analysis. The final stage would be the feedback provided by the attendees to prepare and analyze the current needs of the art community for future classes.

The task cycle could manage as long as a month or longer however each activity is critical and requires daily attention.

Currently platforms are on paper and in person not on the web. The future system will allow for a daily or weekly monitoring for class registration in addition to ticket sales to understand the progress of the events.

The current applications in use are Microsoft Word and Excel. They would continue to use both of these applications in addition to adding another element to contain and manipulate the data. There is some web management knowledge that would be required to maintain a new site and maximize the media outlet. Our system would potentially replace the use of Excel for the database allowing for more efficient reporting methods.

### 3.4 Summary of Key Stakeholder or User Needs

The current problems that LOLA is experiencing are growing pains. In an effort to allow for further expansion to meet the community need. The current system will be streamlined and upgraded for donor and student ease. Subsequently, the information gained will run over into media management to generate more publicity and report generation for accurate reporting.

As we understand LOLAs issues to be need to minimize staff hours spent on tedious data information, create a system to utilize all volunteers efficiently and effectively redistribute data collected to further the growth of the organization.

Need	Priority	Concerns	Current Solution	Proposed Solutions
Automate Class Registration	High	Overbooking	Manual	Web Form
Event Management	High	Donor Information	Excel/Manual	Web Form Reporting Ticketing Accurate Counts
Grant Production	High	Ease of Reporting	Excel/Manual	Database from Web Forms Easier reporting
Media Outreach	Medium	Manage public stories & photos	Library, not tagged or searchable.	Sorted. Searchable. To include media stories. Impactful.
Volunteer Management	Medium	Self-Management, Communication	Personally managed between volunteers	Communication system & web form to increase volunteer base
Online Event Management	High	Public information	Non currently	Online calendar to manage public knowledge.
Feedback	Medium	Staying current with the community needs	In person or via email or letter	Online Form to support constant ideas and information sharing from public.
Art Library System	Low	Missing art	Manual check system	Calendar with reminders upon check out or Cooperate with local library with use of BadgerLink

### **3.5 Alternatives and Competition**

The alternatives that exists would be the status quo. The LOLA group has had tremendous success with their efforts thus far by doubling their revenue every year through 2013. With this fast paced growth a system is needed to skillfully maximize the data to continue the growth in addition to receiving the feedback to keep a pulse on the current needs of the community.

Alternatives that are possible is to use several different solution to solve each individual problem or take advantage of a cohesive complex solution to allow for multidimensional process. This being a non-profit the price cannot be beat however, the competition would potentially be another skilled person versus an entire team to develop the entire process. We fear their maybe loss in potential revenue from donors and fundraising events even potential depletion of volunteers if the current momentum isn't maintained.

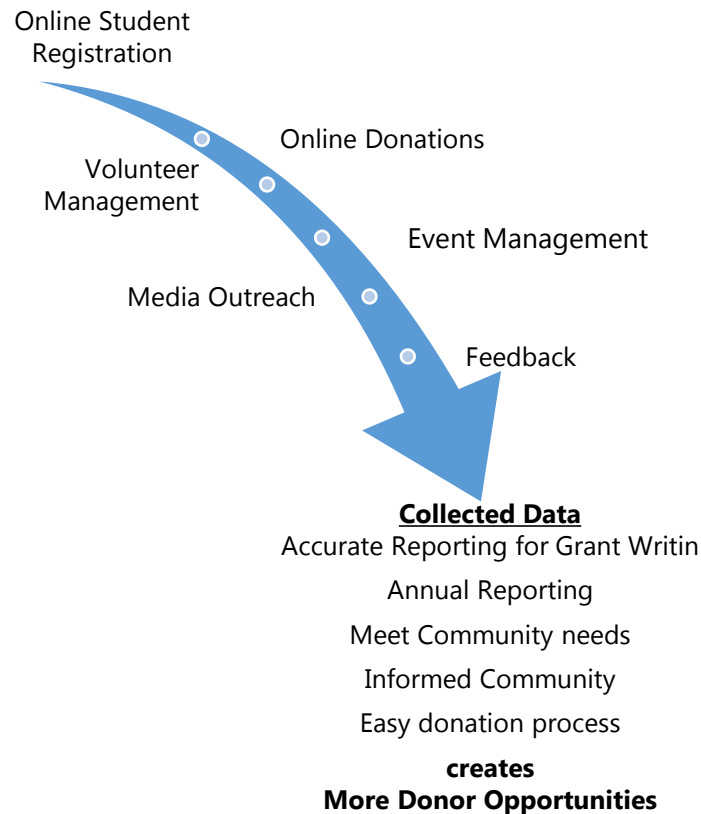
## **4. Product Overview**

The LOLA Expansion IT Project is to be developed to benefit the community and artisans of the Northwoods area. The system will provide capture information as well as easy online access with an offsite location for area residents to donate, participate, volunteer and fundraise.

### **4.1 Product Perspective**

This product process will integrate with all elements of LOLA's necessary features. The largest impact LOLA creates are the ongoing artisan classes provided for the enrichment of the community. Donor giving needs to be easy for the customer (the donor). Web forms will capture data of any donation made and students registered. These forms will allow for captured information to be utilized for grant writing, class sizes, and community outreach. This will enable consistent contact with donors and the community to share future information in fundraising, classes, special events, etc. All of these elements work cohesively to create more donor opportunities.

The complete overview of the business process is represented in the diagram below:



#### 4.2 Assumptions and Dependencies

- The users have sufficient knowledge to utilize a personal computer.
- The LOLA building will have an internet connection.
- At least one computer
- The users will be available for training upon completion.

### 5. Product Features

#### 5.1 Class Registration

By creating a website with web forms, LOLA can create classes online for the students to register. When a potential student goes to the website to register for a class, the web page will contain class availability and class information in addition to a manner to pay for the class. The student can review, select and choose the class they would like to attend then enter in their pertinent information. Thusly, all student information is kept to create an avenue of

communication between LOLA and the community benefactors. In turn LOLA can utilize that information to stay in contact with current students within the community to provide information from upcoming classes, volunteer opportunities, to fundraising events as well as maintain an accurate class count. Accurate information will help review supplies and staffing necessary.

## **5.2 Volunteer Management**

Volunteers are the backbone of any non-profit organization. In so, such a vital resource is managed for maximum efficiency. Optimally, LOLA would like to allow for intercommunication for event handling as well as expand their volunteer base. A webform will aid in maintaining personnel and reduce the need for paid employees until such time that it's necessary.

## **5.3 Donor Page**

By adding a dedicated donation webpage that allows for online donation, LOLA opens its donor base to a more diverse spectrum. The ease of access and additional informational fields will allow for donor specification. If donors want to sponsor a certain event or needed items for artisan classes, or upcoming fundraisers they can direct their donation towards their whim in addition to allowing payment via credit card. This donor input allows for further data capture. This data is immeasurable for annual reporting and contributes accurate information for grant writing.

## **5.4 Event Management**

Fundraising events are expensive to present but crucial to extending the LOLA reach further into the community. The event page is different from the class information page by containing public events where LOLA will be represented in partnerships with the community or specific fundraising events. Having current information available online perhaps within a calendar or something interactive presents the customer with several choices for their time contribution to an event in addition to providing an avenue to share that knowledge and link with other potential donors or students.

## **5.5 Media Page**

Media begets more media. Everything from word of mouth to newspaper clippings is publicity. Publicity is good so we need to make it as easy as possible for the unknown donors and students to find LOLA. People love photos. People love to see photos of themselves having fun.

A media page will list the latest events and on goings, a photo gallery, and newspaper links to generate and organize a historical scrapbook. By making this gallery easy to find and share, the students and community can spread the good work of LOLA.

## **5.6 Data Capture**

By actualizing the above elements, the most important by-product is the amount of data captured. Each of the above elements completes a three dimensional data collection to support the organization's goal for extending their art enrichment further into the rural community. This collective brings the potential for more accurate reporting to be utilized for the annual report and grant writing. With easier data collected for the multitude of needs that it's used should make the process simpler for the user. This information will also aid the Board of Directors to further meet the community needs.

## **5.7 Feedback**

Communication between the community and the organization forges an open relationship for improvements to LOLA. By adding an element webpage to allow the community to offer suggestions of potential partnerships, share in outside event information as well as any complaints or wishes necessary will only further the LOLA mission in enriching the lives of the community. Additionally, there could also be an advantage to integrating the use of the online surveys after each completed class by students.

# **6. Quality Ranges**

## **6.1 Availability**

The system will be online 24 hours a day except during any potential maintenance.

## **6.2 Usability**

The usability of the system will be easy for the donors and employees to use. Employees will receive training and documentation.

## **6.3 Security**

A back up process will be put in place to allow for the data to be secured appropriately.

## **6.4 Maintainability**

There must be daily to weekly information updates to make the information current and applicable to the community. To include updating photos, news clippings, and classes.



## **7. Documentation Requirements**

### **7.1 User Manual**

The User Manual describes the use of the system for the Program Director, Employees or Volunteers. It will describe the creation of the information. The user manual will be available as a hard copy and digital pdf reference.

## **8. Appendix**

### **8.1 Feasibility Analysis**

LOLA's project is very feasible to create. The size of the project is nominal for what we are trying to help them accomplish. We are improving upon the website and making a more involved website to give the user and client a more valuable web experience. Progressing the website is good for the company for the reason that it shows growth and maturity for all who are involved with the running and participation of the non-profit organization. In order to make it easier to explain we have provided a Net Present Value Analysis to show where we will be utilizing the monies for the project and what we could expect to earn you after the project is complete. The analysis will be referred to as Table 1 in Appendix A.

In order to complete upon the renovation of the already existing website, we will cut out the Yahoo small business web design and utilize a more progressive Windows Hosting site. The cost is \$57 a year or \$4.75 a month for the use of the site, this provides potential growth of the site and also ensures that the site can support the database data which will be created in the near future. This change will provide LOLA with a monthly savings of \$26 per month. The new site will provide a medium technical risk for the client for the simple reason, they are not quite experienced on the complexities of maintaining the improved upon site. However, the transition to the new system should be an easier transition with a little training and hands on familiarity with the client to provide some service and support on the improved upon site.

LOLA has requested for a calendar of events and classes be employed on the website as well. The functionality of use will be easy to add on to the site. This will be a low risk endeavor. We will implement the use of Google Calendar on the site. With this function the client can use different separate calendars to help with keeping track of events, overbooking, managing teachers, and volunteers. Having their own calendars should alleviate all of the problems they have had previously and have the potential to sustain these problems in the future. By cleaning up this process it should create a more polished handling of the volunteers and staff. With Google Calendar being completely free this is an easy endeavor to accomplish.

Improving the website with a cloud storage capability is our vision for the improvement of the existing site. Google Drive provides that stable platform for us to create upon and employ for the site. This should prove to have a medium risk for the client to use. Google provides video training for the user to help with the operation of this new function. Also, the backup of the data and information the

client will be gathering can be setup on a monthly or bi-monthly timer to help save collected data if the web administrator forgets to manually do it. The cost is based upon a scale with room for growth and stability cutting out for wasted space. The first 5 gb is free for the client, then 25 gb costs \$2.49 a month, and for 100 gb the cost is \$4.99 a month, although higher capacity is available initially the company will not have use for any more storage at this point.

PayPal has been in operation on the site and we will continue to use that function for the site. However, we will use a new function to help with facilitating the needs of the client to help with collecting and distributing payments. Stripe is a new payment system that incorporates a \$.30 + %2.9 per transaction rate, which is the exact same as PayPal. This should require the same fees paid with PayPal and Stripe. However, it can utilize recurring billing and payment contracts for the client. This will make donations easier to accept for the client and user. The risk will be put as high since this will be a new introduction to the system and it will be dealing with finances for the company, yet we feel that the transition and ease of use will require minimal training at best.

Based upon our meeting with LOLA, the application of social media links attached to the website is a must. We can provide a safe movement into the future with the access of sites like Facebook, Twitter, Instagram, and LinkedIn. Any accessibility will not be an issue. This will be provided with a low risk due to the familiarity of the sites with users. There is no cost to the organization unless they create a page or account with costs assigned but for now it is free. These sites could also help with recruiting volunteers, discovering new events to show case their talents, and to find teachers or enthusiasts in the region. This location on the site is where we thought we could also provide a LOLA lovers link for exclusive access for members of this distinguished affiliates. Here they can be associated as a group and can showcase their talents to supporters of the organization. Also a link for the photo gallery would be presented in the same area to provide all links up front and catching the eye of the visitors of the site. We would separate the photo books by events and classes which will be separated. We will also have the organization of the gallery so that each photo album will display what the event was and entailed.

A survey tool was asked to be used for the site at the end of classes. This will help to collect a type of suggestion box for the client to improve upon the existing features of the organization. In addition this will provide them the capability to learn from the customers as to what is going good and what to improve upon the experience for the customer. We can implement Survey Monkey, a free survey tool that can assist with this endeavor. It is free for the 10 survey questions and 100 responses. A scale is implemented for the next 10 questions with 1000 responses is only \$26 per month this would

provide an annual cost of \$312. This would be a high risk implementation since there is no familiarity with the tool. This information can feed the client with the data to know what classes were enjoyed and what new experiences the customers would like to enjoy in the future.

Incorporating a new database system will help with the collection of data for the organization. We will employ the help of SQL Server to assist with this function of the redesign for LOLA. This system will be compatible with our Windows hosting site as well as the other functions of the site. The source is paid and will be an annual cost of \$57 a year. The risk for this implementation will be high, we still do not know who will provide the technical administration of the organization as of yet. The new administrator will have to be proficient at SQL server, training and perhaps a degree in Computer Information Services will also be required for the operation of this new feature. We estimate that in the area a database administrator will earn \$87,000 a year, this will be the basis of how we achieved an estimate for the maintenance of the site.

WordPress will oversee our content management for the site. This is a free open source and again will prove to be a high risk for the organization. The client will need training on how to use the functions of the content management system. There is service and support for the implementation of this function. This will create reports for the client and make them easy to read for the organization to put the information to use. Potential aspects could be to assist in grant writing for the company to aid in the collection of data and to organize all the reports. In addition this system can assist with the tracking of equipment and supplies for the company to track waste and implementation dollars of the classes. This can more utilized to help with the tracking of the donors and the donations made to the organization. They can also acknowledge the donors who participate more often or even one time donors to create a thanks from the company.

## **8.2 Narrative**

### **8.2.1 Problem Statement**

The Land O' Lakes Area Artisans, or LOLA as it is commonly referred to, is a non-profit organization. They are trying to improve upon the website they currently have on the internet. The main problem that the organization is addressing would be the appearance of the website. The client has stated that they understand that the systems they are working with right now were thrown together without any regard for ease of access for the information collected. The website also needs to reflect the company's artistic nature as well as create solutions for accepting monies and scheduling online. The client would like to make these corrections to the website to further expand and to make running

their organization. Our client does not have infinite resources to help with the payment of new technology or training. That, in terms, limits the amount of solutions we can provide for the client. The solution must be easy to implement and the maintenance aspect must be manageable for the client to support during the duration of the company's life.

#### *8.2.2 Business Case*

During our research, we used the programming summary for 2013 as a base line for our project. There was a total of 127 classes taught with an attendance of 419 students for the year. Nearly all classes showed a net profit. However, there was one class that showed a net loss for LOLA. That class was the Dance class. By implementing our changes to improve upon the website it has the possibility to increase attendance by a possibly at a minimum of 10% per class per year. By transitioning to an all-digital platform for the students, volunteers, and teachers, would have the capability of paying for classes, getting paid for classes, and knowing when work needed to be done for what class and by what time. Streamlining the event calendar could assist with scheduling for all parties as well. Also, by having the website conducting scheduling the organization could show exact attendance of the class and could save in the material costs by knowing exactly how many students would be attending the classes for that period. Materials have been quoted at \$15, imposing a cancellation fee of the material cost would cut down on expenses significantly. With this imposition, if only two students per class per year were charged this fee it potentially could save \$3810, as an estimate. In addition to saving on material costs, enabling donors to donate to specific programs or specific funding could be made possible online with our PayPal implementation of the site. Making it possible for the donors to be acknowledged for the donations and also providing detailed invoices of online payment for tax considerations at the end of the fiscal year as well as helping the organization with grant writing to petition the government for the funds needed to support the artisans monetarily to justify the existence of the program.

#### *8.2.3 Feasibility Considerations*

The technical aspect of the feasibility study suggests that we can build the site for the organization. However, the users have a minimal knowledge of technology, which, for this project, would include databases and website technology. The scale of the project could possibly be completed by a ten person team with the capability to conduct and perform the project in twelve months' time. In addition to the implementation of the site and database, training for the new technology would have to be conducted with at least three individuals responsible for maintaining the site for LOLA. The compatibility with the new system would be integrated easily due to the simplicity of the website and database incorporating the data from the one laptop that the artisans have.

The economic feasibility of the project will be difficult to put in this report. Stating this entails taking on the project without any definitive costs suggested for what we are currently undergoing with so many relative unknowns. Financials have not been shared with us as far as putting together an accurate cost/benefit analysis. In order to develop the project, we first need to find out what costs would be incurred by LOLA. However, by implementing our 10% increase for the base of profit of all programs it would generate \$413.00 in extra revenue for the following year. Since LOLA is a non-profit organization, the monetary sources are extremely limited. It has been discussed that the project needs to be as frugal as possible to help LOLA sustain a profit and not a loss from implementing the new site and to incur extra revenue from the new site.

Organizational feasibility looks at the important stakeholders of the project. Beth Brown is the person associated with the project and later Stacey Adams will assume responsibility for the project. The organizational management will have to maintain the new changes of the site with maintenance and any costs incurred with the site such as monthly rental fees. System users will have to be met with training on how to utilize the site competently and also to maintain the site after it is up. We will need to meet with the users in order to find out how they will enjoy the aesthetics of the site as well. As of late, we have not met with any users.

Initial Investment		
Windows Hosting Site	57	per year
Google Calendar	0	
Google Drive	5	per month
Stripe	\$ .30 + %2.9	per transaction
SSL Certificate	95	per 3 years
SQL Server	0	
WordPress	0	
Desktop All in One	850	
External Harddrive	90	
Printer	299	
Ink & Paper	996	per Year
Programmer	42	per hour
Domain Usage	11.49	per year

Inflation rate	1.60%
Interest Rate	6.25%
Discount Rate	10%
2014 Attendance	400
2014 Amount of Classes	120

Development Costs	
Development Training	250 Based on 5 hours of training at \$10 an hour for 5 days
Hardware and Software	1396
Installation	168 Based on Initial system setup for 4 hours at \$42
Programmer	6300 Based on 150 hours at \$42 per hour
<b>Total Development Costs</b>	<b>8114</b>
Operational Cost	
Software Licensing Fees	1125 Based on Monthly fees per Year
Stripe Fees	137 Based on % 25 use of site on existing customers
Ink Toner and Paper cost	996 Based on buying 1 toner cartridge every 3 months and 1 case of paper at \$50 dollars every 3 months
Internet Fees	360 Based on \$30 a month
<b>Total Operational Costs</b>	<b>2618</b>
Benefits	
Increased attendance	1400 Increase attendance at a minimum of 10% or 40 extra students a year
Reduction in Wasted Supplies	420 Reduce cancellations at a minimum of %10 or 12 students a year
Potential Grants	5000 Writing 1 grant request for \$5000 and receiving a %25 return per month and 1 every other month
<b>Total Tangible Benefits</b>	<b>6820</b>
<b>Total of Cost / Benefits</b>	<b>-3912</b>

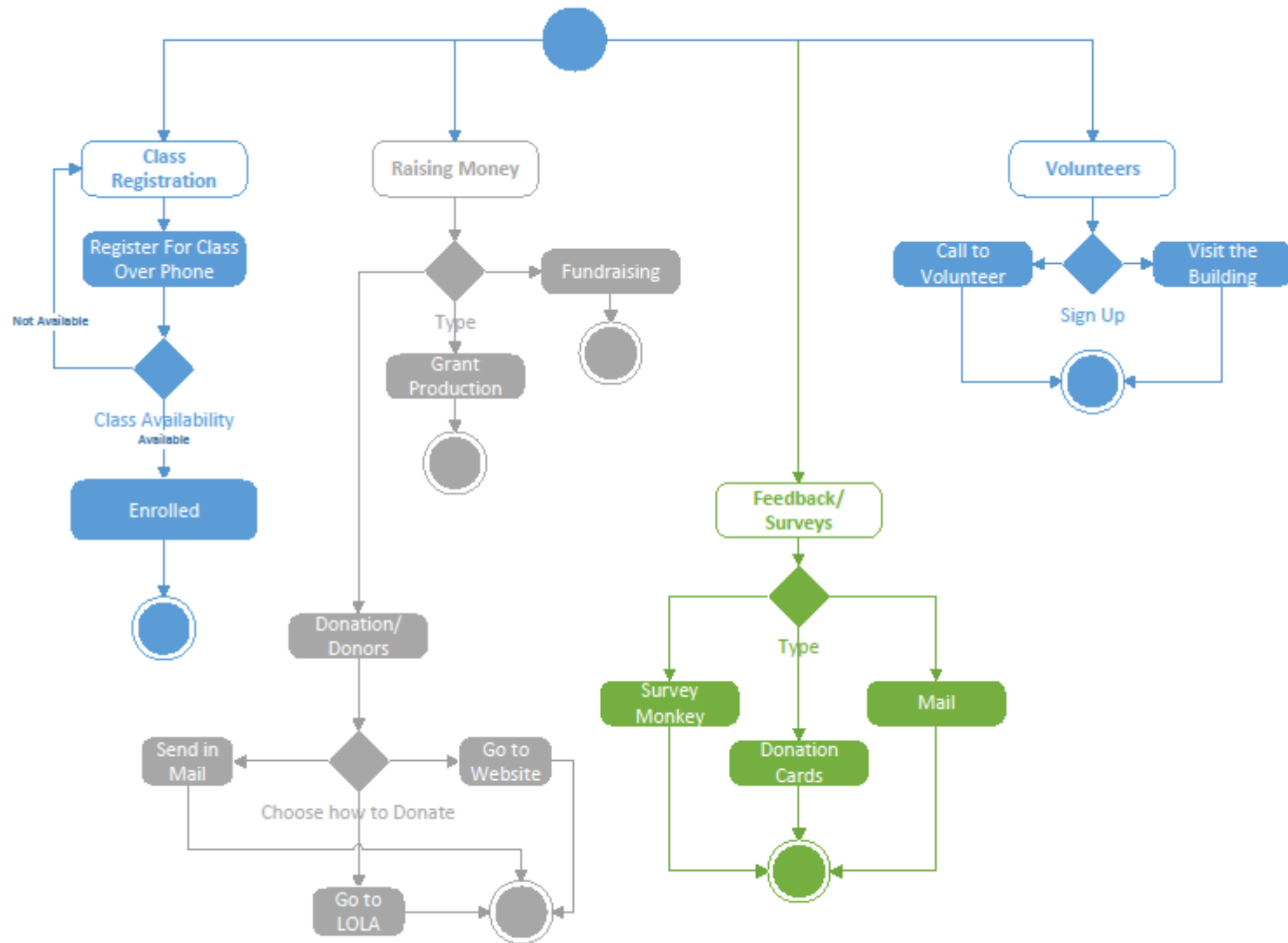
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Increased Attendance	1400	15154	16669	18322	20182	22214
Reduction in Wasted Supplies	420	462	511	564	623	686
Potential Grants	0	30000	30000	30000	30000	30000
<b>Total Benefits</b>	<b>1820</b>	<b>45616</b>	<b>47180</b>	<b>48886</b>	<b>50805</b>	<b>52900</b>
<b>PV of Benefits</b>	<b>1791</b>	<b>44897</b>	<b>46437</b>	<b>48116</b>	<b>50005</b>	<b>52067</b>
<b>PV of all Benefits</b>	<b>1791</b>	<b>44897</b>	<b>46437</b>	<b>48116</b>	<b>50005</b>	<b>52067</b>
Development Training	250	0	0	0	0	0
Hardware and Software	1396	0	0	0	0	0
Installation	168	0	0	0	0	0
Programmer	6300	0	0	0	0	0
<b>Total Development Costs</b>	<b>8114</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Software and Licensing Fees	1125	1125	1125	1125	1125	1125
Stripe Fees	137	173	218	274	345	435
Ink Toner and Paper cost	996	1255	1581	1992	2510	3163
Internet Fees	360	454	572	720	907	1143
<b>Total Operational Cost</b>	<b>2618</b>	<b>3006</b>	<b>3495</b>	<b>4112</b>	<b>4888</b>	<b>5866</b>
<b>Total Costs</b>	<b>10732</b>	<b>3006</b>	<b>3495</b>	<b>4112</b>	<b>4888</b>	<b>5866</b>
<b>PV of Costs</b>	<b>10563</b>	<b>2959</b>	<b>3440</b>	<b>4047</b>	<b>4811</b>	<b>5774</b>
<b>PV of all Costs</b>	<b>10563</b>	<b>2959</b>	<b>3440</b>	<b>4047</b>	<b>4811</b>	<b>5774</b>
<b>Total Project Benefits Costs</b>	<b>-8912</b>	<b>42609</b>	<b>43685</b>	<b>44774</b>	<b>45917</b>	<b>47033</b>
<b>Yearly NPV</b>	<b>-8772</b>	<b>41938</b>	<b>42997</b>	<b>44069</b>	<b>45194</b>	<b>46293</b>
<b>Cumulative NPV</b>	<b>-8772</b>	<b>33167</b>	<b>76163</b>	<b>120232</b>	<b>165426</b>	<b>211719</b>
<b>Return On Investment</b>	<b>-83%</b>	<b>1417%</b>	<b>1250%</b>	<b>1089%</b>	<b>939%</b>	<b>802%</b>
<b>Break even Point</b>	<b>0.21</b>	<b>Within the First 3 months</b>				

Table 1. NPV Analysis

***"As-is" Process Model:***

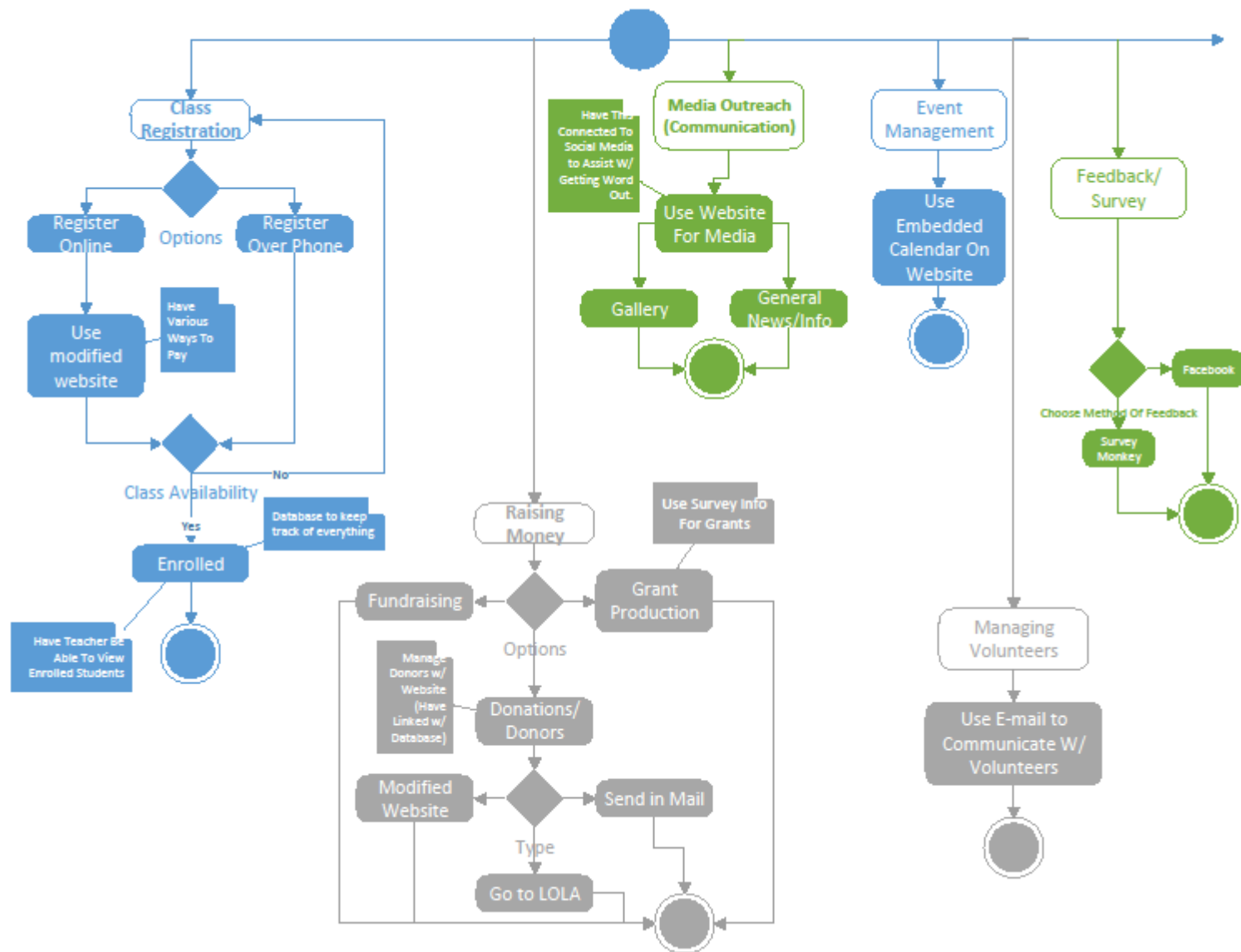
As discussed earlier in the system request, currently LOLA is keeping everything on Excel spreadsheets as well as paper documents. This is a huge limitation as their potential for data loss is very high. Also, this model is very inefficient which leads to LOLA losing out on possible revenue. Regarding the "As-is" business model, you can see there is only one way to sign up for classes and that is over the phone. This leads to people not knowing if a class is available or not and leads to issues on LOLA's end as nothing is actually digitalized. With regards to fundraising, LOLA can write grants or host events while the consumer can donate. However, the online donation page doesn't always work and the other options are very inconvenient. There are several options for feedback and surveys. You can give feedback by writing on the donation cards or by mailing directly to LOLA. LOLA also utilizes free online survey software named SurveyMonkey which they hope to take more advantage of in the "To-be" process model. Finally, with volunteers you can visit the building and give your information to volunteer, or call LOLA directly and give your information that way.





***"To-be" Process Model:***

With the new process model, overall data collection will be greatly improved as well as overall efficiency. As can be seen with the new model, you will be able to register for classes online as well as on the phone. This will allow for more people to sign up for classes which in turn would increase LOLA's yearly profits. Also with the new model, you can see that there will be online event management system which will help LOLA keep track of event details. Also, with this model, fundraising will be easier than ever with the new online donation and grant system. LOLA will be able to capture information online which would help compile information for grants as well as have an easier donation system for donors to donate. With this model, there will also be a media outreach page which is connected to social media that will help get the word out to people about various things. This will also include a gallery. Also, with this new model, managing volunteers will be easier than ever with a new online volunteer management system. This system will keep track of the volunteers and e-mail them when needed. Finally, with regards to feedback on the "To-be" model, LOLA can continue to utilize SurveyMonkey which is free as well as use the reviews from Facebook.



## **9.     *System Requirements***

We feel the main system requirements are Class Registration, Volunteer Management, Donor Page, Event Management, Media Page, Feedback, Data Capture, Hardware, and Security. Of these elements, each item has its own requirements to function efficiently for LOLA. The root cause for the development necessary is rapid growth and creating an infrastructure to foster growth.

### **9.1     Class Registration**

Class registration requires a web form on their website collecting useful data regarding student information. This web form shall be able to add, modify, and delete a student as necessary. This form shall be able to integrate with the new website and be able to work in any browser. The form shall be available for use 24 hours a day to the convenience of student. The data collected shall be contained in an offsite cloud storage and accessible using SQL to request queries programmed for the information.

### **9.2     Donor Page**

Adding a donor page requires that there shall be an online credit card payment option with a Secure Sockets Layer (SSL) which is a certificate protecting the donors from fraud. There shall be a manner in which to allow the donor to specify how they would like their funds dispersed. The page to the public shall have a prefixed amount and manual amount available in addition to allowing for a one time donation or reoccurring donation. A web form to collect the donor information includes the first and last name, email address, billing address information as well as an option to subscribe to their email list for upcoming information.

### **9.3     Media Page**

A media page shall have a page divided into two sections of a photo gallery of LOLA events as well as public news links. The media page shall include contact information for public media communications. A gallery shall create organization of current events and allow for the sharing of information throughout social media including Facebook, Twitter, and Pinterest. The user shall be able to add, delete and modify the galleries as needed.

### **9.4     Event Management**

This web form shall include an interactive calendar presenting current fundraising events and classes available for attendance. The fundraising event calendars shall link to a payment page that shall allow for purchase of an event ticket and then shall connect to a printable barcode ticket. This ticket shall be used to collect donor data.

### **9.5 Volunteer Management**

This web form and forum shall allow for intercommunication between the LOLA volunteers. A volunteer web form shall be created to allow for any person to sign up to become a LOLA volunteer. This web form shall include a username and password to be approved access to the forum and calendar upon acceptance by LOLA. A calendar shall be created to allow for volunteers to sign up for classes and or events as volunteers are needed. This form shall be accessible with a username and password.

### **9.6 Feedback**

Feedback shall include a web form created by WordPress plugin. The LOLA user may send an email with a link for the student or donor to fill out. This plug in shall include an anti-spam solution to avoid inundating the receiver. This form shall be created and installed by the developer.

### **9.7 Data Capture**

The data capture shall be the benefit to web forms being used online to automate the process. The data capture software shall be collected and connected to the SQL server. The LOLA user shall be able to utilize the query process to create reports for the grant writing process or annual reporting as necessary or potentially have the queries written by the developers then available in the manual for later use.

### **9.8 Hardware**

The hardware shall be purchased to allow for these elements. A desktop machine with monitor, keyboard, mouse and printer. This shall allow for the data to be accessed by any volunteer and keep the machine secure within the LOLA location thusly reducing risk of theft or loss like a laptop.

### **9.9 Security**

Security shall be in the form of an anti-virus software loaded onto the hardware purchases. The additional purchase of an external hard drive for a backup of local computers. The SQL server shall have a cloud back up provided by the online service being used in WordPress.

## ***The Tomahawk Group***

### ***List of Use Cases***

Listed below are all the use cases which include the actors and the use of features. A Use Case describes how the user interacts with the system to perform some activity, such as placing an order, making a reservation, or searching for information. We have included 9 Use Cases which correlate to the 9 system requirements we have.

#### **1. Name: Class Registration (Add/Modify/Delete)**

- Primary Actor: Customers
- Secondary Actor: LOLA employees
- Description: A LOLA customer/student has decided on a class they wish to enroll in, so they sign up for a class and pay for it. If a class is full, the website will let the customer know and the customer will be able to sign up for an alternate class.
- System Requirement: Class Registration (1.1)

#### **2. Name: Volunteer Management (LOLA lovers) (Add/Modify/Delete)**

- Primary Actor: Customers (Volunteers)
- Secondary Actor: LOLA employees
- Description: A possible volunteer has decided that they wish to volunteer for LOLA, so they fill out a web form on LOLA's website with their information so that LOLA can get back to them.
- System Requirement: Volunteer Management (1.5)

#### **3. Name: Donor Management (Fundraising) (Add/Modify/Delete)**

- Primary Actor: Customers (Donors)
- Secondary Actor: LOLA employees
- Description: A possible donor has decided that they wish to donate to LOLA. They can do this by going onto the website and filling in their information. On the website, they can decide whether or not they want to donate monetary items and/or supplies.
- System Requirement: Donor Page (1.2)

#### **4. Name: Event Management (Add/Modify/Delete)**

- Primary Actor: LOLA employees
- Secondary Actor: Customers
- Description: A LOLA employee can update the event page/calendar with current information so that any potential donor and/or student will be educated about the upcoming opportunities and events.
- System Requirement: Event Management (1.4)

### **5. Name: Media Page (Gallery) (Add/Modify/Delete)**

- Primary Actor: LOLA employees
- Secondary Actor: Customers
- Description: A LOLA employee can update and post things onto the media page so that customers can visually see what is going on at LOLA.
- System Requirement: Media Page (1.3)

### **6. Name: Feedback (Add/Modify/Delete)**

- Primary Actor: Customers
- Secondary Actor: LOLA employees
- Description: A customer who has taken a class and/or participated in an event can use a WordPress plugin to give LOLA the proper feedback it needs.
- System Requirement: Feedback (1.6)

### **7. Security**

- Primary Actor: LOLA employees
- Description: A LOLA employee can get into the system and alter any of the security settings on the new desktop.
- System Requirement: Security (1.9)

### **8. Data Capture (Add/Modify/Delete)**

- Primary Actor: LOLA employees
- Secondary Actor: Customers
- Description: With the information that customers give, LOLA employees can later use that information to write grants or for other uses.
- System Requirement: Data Capture (1.7)

### **9. Hardware**

- Primary Actor: LOLA employees
- Description: A LOLA employee will use the hardware to do different things for the organization.
- System Requirement: Hardware (1.8)





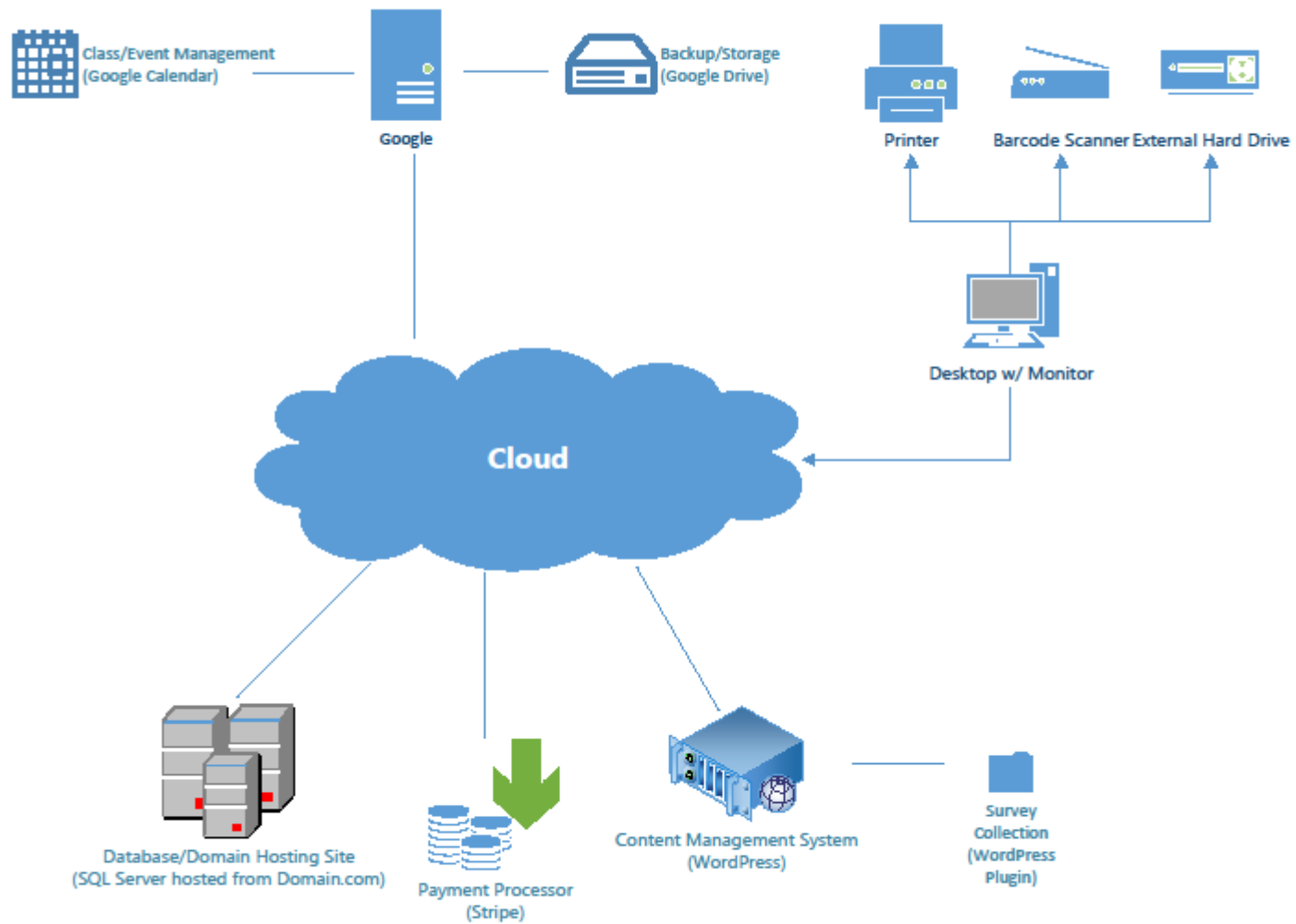
## ***Architecture Considerations:***

On the next 2 pages, the architecture considerations are both diagramed and further explained with prices and license information. This is done to give both a graphical representation and a worded explanation of the proposed system. We have even given price information to the exact dollar so the planning of financials is easier. Also, we have listed all the license information so that it is known exactly how long a license will last and how much per month it is.

## Architecture Considerations

### The Tomahawk Group

<u>Design</u>	<u>Realization</u>	<u>Pricing</u>
Database/Domain Hosting Site	Database/DHS- SQL Server hosted from Domain.com	\$4.75 per month = \$57 per year (1/2/3 year plan)
Payment Processor	Payment Processor- Stripe	2.9% + .30 per transaction SSL Cert. = \$32 per year
Content Management System	Content Management System- WordPress (Built into Domain.com functionality)	Free (Open Source)
Survey Collection	Survey Collection- WordPress Plugin	Free (Included w/ WordPress)
Class/Event Management	Class/Event Management- Google Cal.	Free (Included w/ Gmail)
Backup/Storage	Backup/Storage- Google Drive	4.99 per month
<u>Physical Equip.- Design</u>	<u>Physical Equip.- Realization</u>	
Desktop Computer	Desktop Computer- Dell	\$750
Printer	Printer- HP LaserJet Printer	\$299



## ***Risk Analysis***

Below is the risk analysis for the current business processes at LOLA. We analyze the most important processes and identify them as either high or low risk. Along with the classification of high or low risk, there are explanations explaining why the particular process is classified high or low risk.

## **10. Risk Analysis**

### **10.1 Class Registration**

Class registration is a high risk element because our proposal of monies increased is dependent upon the automation registration process. This registration allows for a reduction in labor to process each student and collection of data to create a database of accurate information for reporting. If this item is incomplete or unavailable all of the projections will not be valid.

### **10.2 Donor Page**

The Donor Page is also a high risk. In our analysis, a credit card online process allows for a more flexible donation in addition for the donor shall have the ability to specify how they would like their donation to be applied. The collection of donor data shall allow for accurate reporting for grant writing and annual reporting to government agencies. If this section is incomplete or fails then there is no information available.

### **10.3 Media Page**

A media page is a low risk element. This page shall allow for collection of pictures and public news information to be shared with the community. The risk is an opportunity cost lost when not having the information available by search or local media outlets. If the information is available to be shared easily with the public, the publicity shall help the spreading the word about the services available from LOLA.

### **10.4 Event Management**

Event management is a high risk element. This element falls within the borders of data collection with the barcode abilities and the efficient use of resources. If this information is available online for the public to view and share, there shall be an increase in attendance thusly increasing the amount of money raised at any one event. Therefore, if this element is not functional, it would potentially impact the final numbers.

### **10.5 Volunteer Management**

Volunteer management is a low risk item. The volunteers would be able to function without a web forum or webpage. This page shall allow for easier communication affecting the efficiency of the resources available but won't wholly effect the bottom line.

## **10.6 Feedback**

Feedback form is also a low risk item. This form is necessary for LOLA's continued growth. By understanding their community better, LOLA can create more tailored programs but this element does not directly raise or bring in money and not critical to the final outcome.

## ***Team Charter***

# **The Tomahawk Group**

### **Mission**

The mission of the Tomahawk Group is to design an efficient, cost-effective website to address LOLA's business needs through systematic analysis of their existing processes and the best practices of similar organizations.

### **Goals**

- To submit a thorough and accurate report, free of typographical and grammatical errors, for each assigned iteration by its due date
- To design an efficient, affordable solution that meets the needs of the client (LOLA) by the designated due date
- To promote team cohesion by ensuring every member has the opportunity to voice his/her opinion and review the work of others before submission

### **Team Members**

- Tyler Lutz -- ***Team Leader***
- Daniel McGrath-- ***Meeting Facilitator***
- Michael Chapa
- Jenet Baribeau—***Recorder***

### **Team Meetings**

#### ***Attendance:***

- Attendance at team meetings is mandatory for all members unless they have a valid reason for their absence (e.g. work, class conflict, illness, family emergency)
- If a team member must miss a meeting, he/she will notify the Team Leader via email or text message prior to the meeting start time.

- Standard meeting time - Thursday mornings, 9:30 a.m.-11:00 a.m., Eckstrom Library
- If additional meetings are necessary, the Team Leader will determine the date and time of the meeting, attempting to accommodate the schedules of team members
- Additional meeting times and locations will be communicated to all members by the Team Leader via email and text message

### ***Group Discussion:***

- All team members will actively participate in team discussions, and each will be given the opportunity to present their ideas and opinions on all matters affecting the team project.
- No team member will ridicule the ideas or opinions of others.
- If team members disagree on project decisions, they will attempt to resolve the disagreement through discussion in order to reach consensus. If the dispute is not resolved, the decision will be made by majority vote of all team members present.

### ***Division of Labor:***

- Work will be divided equally among all team members.
- Team members will produce their assigned work by the established deadline.
- In the event a team member is not able to complete his/her work assignment, he/she will immediately notify the Team Leader so the work can be reassigned.
- The Recorder will take minutes at all team meetings and will post the minutes on the team's OneDrive account.

### **Communication**

- Team members will communicate with each other via email and text messaging. Documents will be posted on the Team OneDrive account for review and revision.
- Team members will communicate with the client via email or Skype, depending on the type of interaction needed.
- Team members will communicate with Dr. Barker in person and via email. Assignments will be submitted via Blackboard or other means as required by Dr. Barker.

### **Project Repository**



- All work products created by team members will be stored in the group's OneDrive account.
- The OneDrive account will be monitored and maintained by the Team Leader.

### **Assessment of team effectiveness**

At the conclusion of every project iteration, team members will discuss (1) the group's effectiveness in meeting the requirements of the assignment, and (2) the group's effectiveness in working together as a team. We will devise solutions to address any identified weaknesses and set improvement goals for our future performance.

### **Team Member Accountability**

In the event a team member fails to act in accordance with the terms of this charter, the remaining team members will first discuss the issue with the offending team member, reminding him/her of this charter and its requirements. If the team member's conduct persists, the Team Leader will request a meeting with Dr. Barker to discuss other courses of action.

## ***Gantt Chart***

Below is a Gantt chart that outlines the work to be done and the timeframes they should be completed in. The chart shows what task should be completed before the next can be done. The timeframes are estimates of the task but the deadline is set and has to be met.

ID	Task Name	Start	Finish	Duration	Jan 2015	Feb 2015				Mar 2015	
					1/25	2/1	2/8	2/15	2/22	3/1	3/8
1	Iteration 2	1/26/2015	2/13/2015	15d							
2	Iteration 3	2/13/2015	3/16/2015	22d							
3	Vision Document (Michael)	1/26/2015	1/28/2015	3d							
4	System Requirements (Jenet)	1/29/2015	1/30/2015	2d							
5	Use Cases (Daniel)	2/2/2015	2/3/2015	2d							
6	Initial Architecture (Daniel)	2/4/2015	2/5/2015	2d							
7	Risk Analysis (Jenet)	2/6/2015	2/10/2015	3d							
8	Gantt Chart (Tyler)	2/11/2015	2/11/2015	1d							
9	Prototype (Tyler)	2/12/2015	2/13/2015	2d							
10	Use Cases (Jenet, Michael)	2/11/2015	2/19/2015	7d							
11	Use Case Diagram (Daniel, Michael)	2/20/2015	3/2/2015	7d							
12	Gantt Chart (Tyler, Jenet)	3/3/2015	3/4/2015	2d							
13	Use Case Prototype, Version 1 (Tyler, Daniel)	3/5/2015	3/16/2015	8d							

## ***Prototypes***

Below are example prototypes of the high risk processes for LOLA. These prototypes are strictly examples of what the system could do but are not actual representations of the developed system. There are three prototypes, one for the online payment system, another for class and event management, and the last is an example of an online donation system.

### ***Example Class and Event Registration Form with Stripe Payment***

The image below is a prototype of what the user would have to complete when signing up for a class or event. The user could input their registration information and then click on continue to payment. At that time the second image below could pop up asking for the user to input their credit card information and email address. Where the payment could be processed through stripe and the customer could be sent an email confirming their registration.

## Class and Event Example Form

First Name

Last Name


Address

City

State

[Continue To Payment](#)


forms via [Stripe.js](#) if it doesn't fit your use-case.

×

**Demo Site**  
2 widgets (\$20.00)

☒ Remember me [i](#)

For security, please enter your mobile phone number:



[Pay \\$20.00](#)

### ***Class and Event Management (Google Calendar)***

The image below is an example of a calendar prototype provided using Google Calendar. The calendar is easy to put onto LOLA's website by simply using the IFRAME code generated by google. LOLA would be able to create different calendars for different pages (Classes, Events) and manage them all through the Google Calendar Application online. The user can click on the date in the calendar and it will give them the time, place, and description about the event.

Google Sites Demo Calendar

Today

February 2015

Print

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Feb 1 7am Big	2	3	4	5	6	7
		<div><div>Google Sites Training</div><div>When Tue, February 10, 11am – 12pm</div><div><a href="#">more details»</a> <a href="#">copy to my calendar»</a></div></div>	7:30am More Fun			
8	7am Big Event	11am Google Sites Training	11	7:30am More Fun	12	13
14						
15	7am Big Event	11am Google Sites Training	17	7:30am More Fun	19	20
21						
22	7am Big Event	11am Google Sites Training	24	7:30am More Fun	26	27
28						

Events shown in time zone: Central Time

Google Calendar



## ***Donation Management***

Below is an example of a donation prototype that LOLA could use to accept donation online. These donation can be reoccurring or a onetime donation. After the user specifies what type of donation they would like, they could be proceeded to the payment form which is the second image below. They would enter their payment information and the payment could be sent securely to stripe.

Donate monthly

Donate one time

You are about to make a monthly donation. Easily cancel at any time by [sending us an email](#). To make a single, one-time donation, click the tab on the right.

Give \$9 per month

Give \$24 per month

Custom (monthly)

Next step

First name

Last name

Email\*

Card Number



Expiration Date

Month ▼

Year ▼

Security Code

Cardholder Name