Capstone Project Milestones 1, 2, 3, 4, & 5

By

Team TEENG

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Executive Summary

People often experience anxiety when it comes to buying gifts for other people, especially those people for whom they are only acquainted with. Team TEENG is proposing to develop a gift registry that will allow people to create an accessible wish list that their friends and family can access and review for ideas and inspiration. This will be hosted online as a web app utilizing common web development tools and methodologies.

This project will be implemented as a series of milestones. For the first milestone of the project, the team will develop the project requirements and design to realize this goal. For the second milestone of the project, the team will build upon the project requirements and design developed as part of the first milestone. For the third milestone of the project, the team will focus on further developing the project requirements and developing the testing plan. The team will collaborate to conduct the research and analysis needed to obtain the project requirements and design. The problems that may be encountered as a part of this project are going to be scheduling in nature due to the work and family commitments that the team members have.

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Proposed Project Vision, Overview Statement, Project Feasibility

Vision Statement

A lifetime of gifting made easy. Our vision is to provide people the means of better connecting with their friends and family by matching the perfect gift to them. Users will be able to express their interests and allow their friends and family to coordinate with each other on not only selecting the right gift but also to prevent two of their friends from giving the same gift. By using this platform, we will be able to remove the social anxiety that comes with gift-giving.

This service will also strive to help enable merchants to make connections with the users marking off or selecting the products through the service to create better customer satisfaction. Our platform will help to satisfy the market's desire to better understand their target audience and how best to meet the demands of the marketplace.

The ultimate goal of this project is to spin this off into an independent venture that could continue operations on the Web. Should this become a success, Team TEENG will graduate into a startup responsible for the continued operations, management, and maintenance of the platform. Thus, the team members of this group, as potential partners and investors of this project, are also stakeholders in the success of this venture.

From each of the different stakeholders' perspectives, the biggest risk is that this platform will fail to deliver the value that is expected of this service, or worse, realize value from the system only for it to fail at some point afterwards.

Scope

The scope of this project will consist of the development of a web app hosting through a cloud provider that consists of a web server and a database.

For the user, the minimum viable product will consist of allowing them to create an account and list the products that they have an interest in. Other users will be able to create connections with each other and to be able to view each other's wish lists and indicate which products that they would like to get for the other person. The person who created the registry will not be able to see which products that people have selected for them so as not to spoil the surprise.

The team will adopt a semi-Agile development methodology utilizing a small backlog that can be used not only for adding new features but also for testing the functionality of the system. As part of the semi-Agile approach, the team will have regular scrums to determine the features to be added to the system. The scope of this project also includes documentation and testing phases to be completed in conjunction with the software. Project completion will occur when the software and documentation package has been successfully executed and transitioned into TEENG's web app.

All Gift Registry Project work will be performed internally and no portion of this project will be outsourced. The scope of this project does not include any changes in requirements to standard operating systems to run the software, software updates or revisions.

Complexity

This project is of moderate complexity. For phase one of the project, we will focus on creating the functionality that will make up the minimum viable product. For phase two and beyond, we can look at conducting integrations with online merchants to create a more functional product that helps to drive sales towards their stores. The service will consist of a cloud-hosted web app and an accompanying database utilizing a standard 3rd normal form relational structure.

Workplan Estimates

For the design phase of the project, the estimated level of effort required for the various tasks include:

- Requirements – the development of the functional requirements of the system is estimated to take about 16 work hours. From here, the technical requirements of the system will be developed, including logical and physical design. This is estimated to take between 16 and 24 work hours
- Database design – the development of the database design will stem from the technical requirements that were developed. This will not only include the development of entity diagrams and datatypes, but also will involve database comparison and selection. This is estimated to take about 16 work hours
- Workflows and use cases – the use cases of the system will be devised to identify the users of the system and their particular requirements. Each use case will then be further developed into workflows using flow charts. This is estimated to take about 12 work hours
- Interface and graphics design – the design of the user interface and the overall look and feel will begin with wireframes based on the user workflows and requirements. The design will be evaluated for both user experience (UX) and usability. This is estimated to take about 20 work hours
- Marketing research – the market that this platform will emerge into must be well understood. This involves not only the standard market research but also an analysis into

the social media ecosystem that this service will live within to inform the development of the social media features of the system. This is estimated to take about 40 work hours

- Cost analysis – the cost analysis will be conducted to determine the cost to host and develop this solution during the project development and implementation phase of this platform. By leveraging hosting services and other cloud providers, this will greatly simplify the labor involved, estimated to be about 4 work hours

During the development and implementation phase, the estimated level of effort for the various tasks include:

- Database construction – this will involve building the actual tables in the database and populating data in lookup tables as needed. This is estimated to take approximately 4 work hours
- Web development – this will be the longest and most involved portion of the project and is estimated to take about 250 work hours
- Deployment – this will be done on a semi-regular basis on the project to allow for testing. This also includes setting up the necessary server infrastructure needed to host a web app as well as pushing the database design to the hosting provider. This is estimated to take about 8 work hours
- Testing and quality control – this will be the next most involved portion of the project. This will include testing for conformance of the project to documented requirements, functional testing of the various components, and usability testing to ensure an optimal user experience. This is estimated to take about 150 work hours

- Compliance and regulatory requirements – the privacy policies, terms of service, and other required documents will need to be created. This is estimated to take about 12 work hours

The overhead for this project will include:

- Getting team members familiar with development methodologies, to include Agile, testing, and source control. This should be an ongoing effort to total about 8 cumulative work hours
- Learning and applying new programming skills – several team members have expressed an interest in learning additional technical skills such as web development. This will be an ongoing process estimated to take an additional 60 work hours
- System documents and procedures – the documentation of this system will involve all of the components and features that go into the system to ensure the long-term scalability of the maintenance of the system. This will be done on an ongoing basis and should contribute only about 8 additional work hours on top of the other work that is done. This will also include the development of source control for the project

Despite the total work hours described above, the scope of the project should be within the timelines and abilities of the team members on this project to complete within a 12 week period.

Team Structure and Capabilities

The team consists of:

- Tai Butler – visual design, graphics, and marketing research and analysis. Tai is well versed in design and has a fabulous and chic sense of style. She will also serve as the client advocate for this project

- Edward Martinez – project management and infrastructure. Edward climbs up telephone poles and crawls down into manholes which equips him to do the much of project management
- Eduardo Davila – associate software development. His day job is involved in IT management and maintenance and he has a keen desire to learn software development
- Nupoor Basmatkar – risk analysis and management, compliance, and quality assurance. Nupoor has a background in security and compliance
- Graham O’Hea – team lead, project design, and principle software development. Graham has been involved in technical project design and implementations stretching back to 2009 and has done software development in various forms

Project Management Section

Project Management Introduction

The Stakeholders at Teeng.org have recently approved the Gift Registry Project to move forward for project initiation within the research and development (R&D) group. This project will result in the development and implementation, of a web app hosting through a cloud provider that consists of a web server and a database. The web app developed through this project will create a lifetime of gifting made easy, and will assist in removing any social-anxiety that comes with gift-giving. The project will consist of various deliverables which include: the development of requirements, project design and implementation, workflow and use cases, interface design and compliance documents, market analysis, written code and deployment, as well as testing.

Project Management Approach

The Project Manager, Edward Martinez, along with Team Lead, Graham O'Hea, have the overall authority and responsibility for managing and executing this project according to this Project Plan. The project team will consist of members from design and marketing, software development, compliance, and testing. The project manager and team lead will work with all resources to perform project planning. All project management plans will be reviewed and approved by the project stakeholders. All funding decisions will also be made by the project stakeholders. Any delegation of approval authority to the project manager or team lead should be done in writing and be signed by both the project stakeholders and project manager.

The project manager and team lead are responsible for communicating with all stakeholders on the progress and performance of each project resource.

Project V-Model

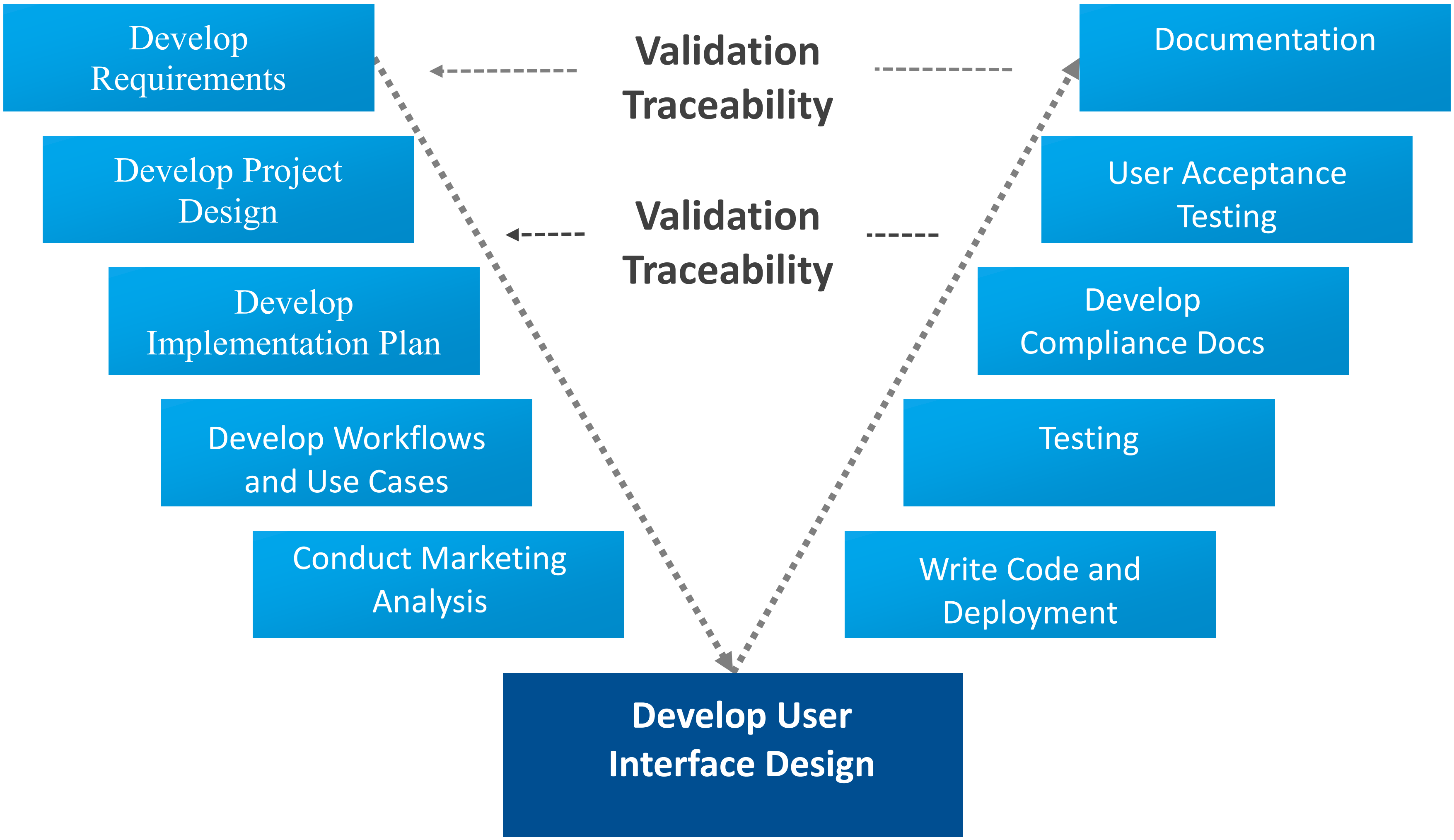

Fig 1. Project V Model

Project Plan

For the project, the high level project plan will encompass the following:

	Week											
Task	1	2	3	4	5	6	7	8	9	10	11	12
Develop requirements												
Develop project design												
Develop implementation plan												
Develop workflows and use cases												
Conduct marketing analysis												
Develop user interface design												
Write code and deployment												
Testing												
Develop compliance docs												

Fig 2. High Level Project Plan

Specific tasks associated with this project include:

- Documentation of the business case for this project
- Development of the use cases for this platform
- Development of user workflows
- Conducting functional requirements analysis
- Conducting technical requirements analysis
- Selection of database, web server, and development framework
- Selection of the hosting environment
- Development of the project plan

- Conducting general market analysis
- Conducting social media analysis
- Development of the user interface wireframes
- Development of custom graphics as needed
- Creating the overall website structure
- Writing the actual code
- Deployment to the hosting environment
- Development of testing framework
- Testing deployed web app
- Research regulatory requirements and develop compliance needed for it

Milestone List

The following chart lists the major milestones for the Gift Registry Project. This chart is comprised only of major project milestones such as completion of a project phase. There may be smaller milestones which are not included on this chart but are included in the project schedule and WBS. If there are any scheduling delays which may impact the milestone or delivery date, the project manager and team lead must be notified immediately so proactive measures may be taken to mitigate slips in dates. Any approved changes to these milestones or dates will be communicated to the project team by the project manager or team lead.

Milestone	**Description**	**Date**
Develop Requirements	Create the documents that describe the requirements that the project is designed to accomplish	November 15, 2018

Develop Project Design	Create the documents that describe the project and its aims	November 15, 2018
Develop Implementation Plan	Create the documents that describe how the project will be implemented	November 29, 2018
Develop Workflows and Use Cases	Create the documents that describe the workflows and use cases for the project	November 11, 2018
Conduct Marketing Analysis	Conduct research into the market, perform an analysis, and document findings	November 30, 2018
Develop User Interface	Create the basic designs of the website that will be visible to end users	November 24, 2018
Write Code and Deployment	Develop the actual code needed to implement the project as designed and publish the resulting files to the test web server	January 13, 2019
Testing	Develop test scripts based on requirements and work	January 25, 2019

	through the scripts to validate build	
Develop Compliance Docs	Develop the documentation required for regulatory and compliance purposes	January 12, 2019

Table 1. Milestones. Description of the timelines and tasks for project completion

Schedule Baseline and Work Breakdown Structure

The WBS for the Gift Registry Project is comprised of work packages which do not exceed 250 hours of work but are at least 4 hours of work. Work packages were developed through close collaboration among project team members and stakeholders with input from past research projects.

The WBS Dictionary defines all work packages for the Gift Registry Project. These definitions include all tasks, resources, and deliverables. Every work package in the WBS is defined in the WBS Dictionary and will aid in resource planning, task completion, and ensuring deliverables meet project requirements.

The Gift Registry Project schedule was derived from the WBS and Project Charter with input from all project team members and stakeholders. The schedule was completed, reviewed by the Project Stakeholders and approved and base-lined. The schedule will be maintained as a MS Project Gantt Chart by the Gift Registry Project Manager. Any proposed changes to the schedule will follow team TEENG’s change control process. If a change request is necessary, it will be submitted to the Project Manager or Team Lead. The Project Manager and team will determine the impact of the change on the schedule, cost, resources, scope, and risks. If it is determined that the change has significant impacts, it will be forwarded to the Project Stakeholders for review and approval.

If the change is approved by the Project Stakeholders then it will be implemented by the Project Manager or Team Lead who will update the schedule and all documentation and communicate the change to all stakeholders in accordance with the Change Control Process.

Work breakdown structure

Task Name	Duration	Start	Finish
Team TEENG Gift Registry	**70 days**	**Mon 10/29/18**	**Sat 2/2/19**
Develop Requirements	14 days	Mon 10/29/18	Thu 11/15/18
Documentation of Business Case	8 days	Thu 11/1/18	Sun 11/11/18
Presentation	0 days	Tue 11/6/18	Tue 11/6/18
Milestone 1/ Documentation	0 days	Thu 11/8/18	Thu 11/8/18
Develop Project Design	9 days	Mon 11/5/18	Thu 11/15/18
Develop Implementation Plan	14 days	Mon 11/12/18	Thu 11/29/18
Develop Risk Management Process	12 days	Tue 11/13/18	Wed 11/28/18
Develop Quality Assurance Processes	5 days	Tue 11/13/18	Mon 11/19/18
Develop a Defect Tracking Process	5 days	Wed 11/14/18	Tue 11/20/18
Develop a Change Management Process	5 days	Wed 11/14/18	Tue 11/20/18
Develop Workflows and Use Cases	6 days	Mon 11/5/18	Sun 11/11/18
Milestone 2/Documentation	0 days	Mon 11/19/18	Mon 11/19/18
Presentation w/Demo	0 days	Tue 11/20/18	Tue 11/20/18
Milestone 1&2 Revision and Documentation	0 days	Sat 11/24/18	Sat 11/24/18
Presentation PPT	0 days	Sat 11/24/18	Sat 11/24/18
Conduct Marketing Analysis	**20 days**	**Mon 11/5/18**	**Fri 11/30/18**
Conduct Social Media Analysis			
Conduct Functional Requirements Analysis	8 days	Thu 11/1/18	Sun 11/11/18

Conduct Technical Requirements Analysis			
Develop User Interface Design	**11 days**	**Mon 11/12/18**	**Sat 11/24/18**
Selection of database, web server, and development framework	3 days	Mon 11/12/18	Wed 11/14/18
Selection of Hosting Environment	3 days	Thu 11/15/18	Sat 11/17/18
Development of user interface wireframes	8 days	Thu 11/15/18	Sat 11/24/18
Write Code and Deployment	**36 days**	**Mon 11/26/18**	**Sun 1/13/19**
Development of custom graphics	26 days	Mon 11/26/18	Mon 12/31/18
Create overall website structure			
Deployment to the hosting environment			
Testing	**40 days**	**Mon 12/3/18**	**Fri 1/25/19**
Test Deployment and Web App			
Update ERD	4 days	Thu 11/29/18	Tue 12/4/18
Develop Site Map	4 days	Thu 11/29/18	Tue 12/4/18
Milestone 3 Documentation/ Presentation	0 days	Wed 12/5/18	Wed 12/5/18
Milestone 3 Revision	0 days	Mon 12/10/18	Mon 12/10/18
Milestone 4	0 days	Wed 12/19/18	Wed 12/19/18
Milestone 4 Revision	0 days	Sat 12/22/18	Sat 12/22/18
Develop Compliance Docs	**22 days**	**Fri 12/14/18**	**Sat 1/12/19**

Research Regulatory Requirements and Develop Compliance			
Milestone 5	0 days	Wed 1/16/19	Wed 1/16/19
Milestone 5 Revision	0 days	Mon 1/21/19	Mon 1/21/19
Final Presentation	0 days	Wed 1/30/19	Wed 1/30/19
Final Version of Documentation and PPT	0 days	Sat 2/2/19	Sat 2/2/19

Table 2. Work Breakdown Structure. Detail breakdown of the work to be completed with start and end dates.

Cost

We will be awarding ourselves a salary of $100,000 each due to the high cost of living in southern California, pro-rated to the three months that covers the project. This will come out to be a total of $125,000 for the duration of the project.

We will attempt to leverage the free hosting options that many providers offer for new startups and small projects. While this will not entirely be free, costs for hosting and other services is estimated to be about $100 or less for the duration of the project.

This project may also utilize the services of a graphic designer to create custom graphics and iconography for the web site. Costs for this should be contained and less than $200.

Problem Analysis

Potential problems that may be encountered over the course of the project and especially within the current and next phase of the project are schedule-based in nature. All team members have real jobs and real lives outside of this class and must juggle multiple responsibilities while also delivering a high degree of value to the project. This can severely constrain the available time that can be allocated to working on the project.

This project will involve multiple parts that must move in conjunction with each other to ensure the successful outcome of the project. Therefore, management of these parallel tasks must be done carefully and in a deliberate way in order to keep within the scope and schedule of the project.

Communications Management Plan

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project and will be updated as communication requirements change. This plan identifies and defines the roles of the Gift Registry Project team members as they pertain to communications. It also includes a communications matrix which maps the communications requirements of this project, and communication conduct for meetings and other forms of communication. A project team directory is also included to provide contact information for all stakeholders directly involved in the project.

The Project Manager will take the lead role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix below. The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it, and to whom to communicate.

Communications conduct.

This section outlines the expected conduct that team members are expected to adhere to.

Meetings.

All project team meetings will be held every Tuesday and Thursday evenings and on an as needed basis to meet project scope and milestone deadlines. Time will be determined amongst project team members.

Email.

All email pertaining to the Gift Registry Project should be professional, free of errors, and provide brief communication. Email should be distributed to the correct project participants in accordance with the communication matrix above based on its content. If the email is to bring an issue forward then it should discuss what the issue is, provide a brief background on the issue, and provide a recommendation to correct the issue. The Project Manager and all team members should be included on any email pertaining to the Gift Registry Project.

Communication plan.

Communication Type	Description	Frequency	Format	Participants/Distribution	Deliverable	Owner
Status Report	Project Status	Weekly	Email/Zoom	Project Team	Update Docs	Project Manager
Team Meeting	Collaboration Meetings	Weekly	Email/Zoom	Project Team	Update Team	Project Manager
Project Review	Present project status to Stakeholders	Weekly	Email/Zoom	Project Team	Project Team	Project Manager
Milestones	Maintain project scope to meet milestone dates	Weekly	Email/Zoom	Project Team	Phase completion and kickoff report	Project Manager
Design Review	Collaboration on Design/Analysis	Weekly	Email/Zoom	Project Team	Design Package	Project Manager

Table 3. Communications Plan. Summary of how Team TEENG will keep in contact through the course of the project

Project team directory for all communications.

Name	Title	Email	Phone
Tai Butler	Designer/Marketing Agent	tbutler087@gmail.com	209-774-8580
Edward Martinez	Project Management	em.martinez22@yahoo.com	760-705-5115
Eduardo Davila	Software Development	quatemoc14@aim.com	914-221-8245
Nupoor Basmatkar	Compliance Officer	bnupoor6270@gmail.com	858-345-0520
Graham O'Hea	Team Lead/ Software Development	gmohea@gmail.com	619-829-0239

Table 4. Project Team Directory. The contact info and roles for each of the team members.

System Context Diagram

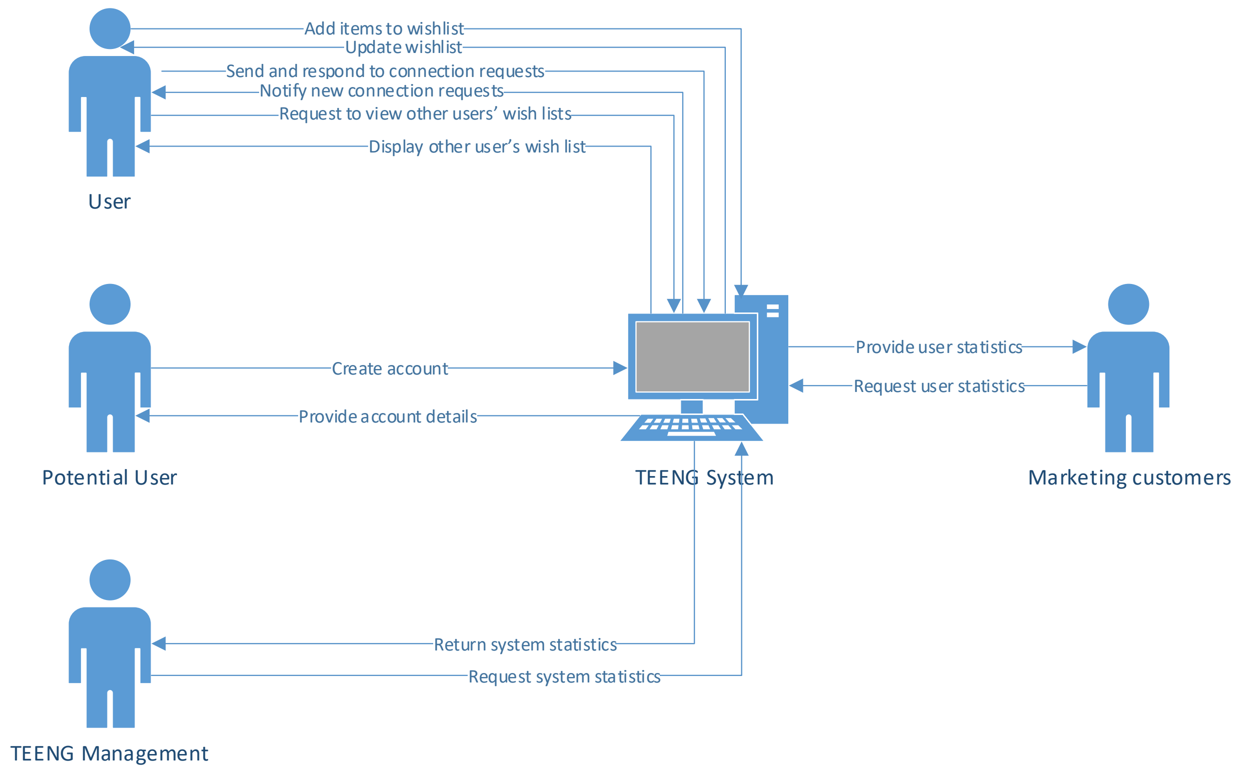

Fig 3. System Context Diagram

Use Case Diagram

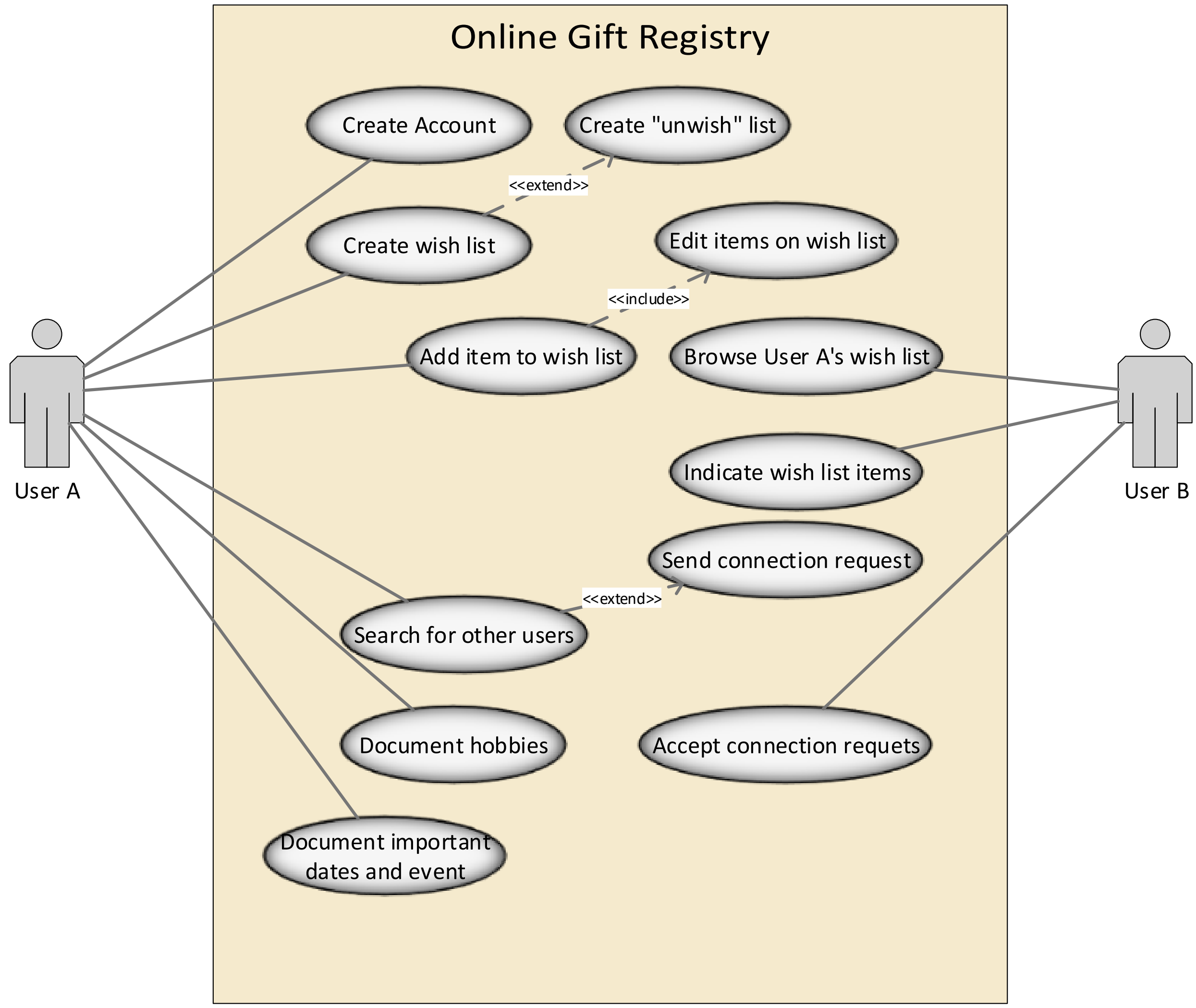

Fig 4. Use Case Diagram for End Users

Functional Specifications

Product Concept

The product is an online gift registry that will allow users to indicate gifts that they would like to receive. Other users will be able to see what these wish lists for gift ideas and to be able to indicate what they are going to give so that other users will know and will not give it as well.

Users Functions

A user should be able to make an account with the service and be able to set their own user name and password. The system should also collect their email address to be able to message the user as needed.

User Events

The user should be able to indicate dates and holidays that are important to them. These dates can be a one-time event, such as a graduation or wedding, or they can be recurring events, such as birthdays, anniversaries, and holidays. For phase 1, recurring events only have to happen once a year.

For phase 2, recurring events should be set to be arbitrary intervals. Also for phase 2, the system should be able to produce .ics files to add or share events with standard email calendar applications. Finally, for phase 2 or beyond, the user can use the service to help them plan for specific events beyond just the appropriate gifts for the event, such as sending out invitations.

User Wish Lists

The central feature of this product is the wish list. Each user who signs up with the service will be given a wish list that they can add those things, called “items”, that they would like to receive as gifts.

Items on a list can be one of several types:

Type	Example	Description
Specific and online	Harry's Truman Razor set	Specific product by a specific producer that can be found online. The user should be able to provide a description and a URL
Specific and offline	Krispy Kreme Donuts	Specific product by a specific producer that is generally found in stores. The user should be able to provide a description and the name of the store. The physical address would be even better
Generic	Red wine	A general class of product that the user can express an interest in without providing specific guidance as to which one. Unlike the specific products, above, the user may not care to receive multiples of the same generic type as long as they are distinct products. Connections should indicate which specific

		products that they are going to give so that other Connections do not give it
Curios and collectables	First edition of “War and Peace” in the original Russian	Specific products that the user desires but does not know where to get.
Services and experiences	Dinner at a particular restaurant	Intangible gifts that are not physical goods that the user must physically be present to experience
Cash and gift cards	A written check A gift card for Amazon	Gifts that are directly convertible to money in some form. It is assumed that the recipient does not care to get multiple checks or gift cards and indications cannot be placed on them
Charities	A donation to the local homeless shelter	The user can indicate that instead of getting a gift directly that they would like their connections to donate to a particular charity instead. It is assumed that the recipient

		would prefer if multiple people donated to the same charity; thus, indications cannot be placed on them

Table 5. Item Types. The various categories and examples of how items can be classified.

User Interests and Hobbies

An optional feature, the user should be able to detail interests and hobbies that they have. The purpose of this is not to indicate specific gifts that they would like to receive, but rather to spark ideas for gifts. A phase 2 feature might be integration with Pintrest or similar sites.

User Unwish List

An optional feature, the user should be able to provide brief descriptions of things that they would not appreciate as gifts, such as “No alcohol”.

Connections

Users should be able to browse through the platform to find other users of the service that they might know. If they do find someone that they know, they should be able to send a request to that person. The second person should be able to approve the request and indicate the relationship that they have with the requesting person. This is known as a “Connection”.

Connection Levels

Different people have different levels of relationships with other people and the service should seek to preserve this. In an effort to curb abuse and prevent level escalation, it is the approver of the connection request, and not the requestor, to designate the level of the connection.

Connection Level	Description
Public	This is technically a connection level, but cannot be set by the approver. Any user who does not have a connection with another user will only be able to see public level wish list items
Acquaintances	A person for whom the user has met, but has no deep relationship with
Co-Workers	A person that the user has a business relationship with, including client relationships
Friends	A person for whom the user would be considered to have a deep, though not familiar or intimate, relationship with
Family	A person related to the user in some fashion
Intimates	A person for whom the user has a romantic relationship with, such as spouses, partners, boyfriend/girlfriend, et cetera

Table 6. Connection Level Types. Descriptions of the relationships that users can have with one another

Connection levels and Wish List items

When a user adds a new item to their wish list, they will be required to assign that item one or more connection levels to indicate the comfort that they have with connections in that particular level seeing the item that they have added.

For example, a user could add a Newton’s Cradle to their wish list and make it available to anyone that they have connections with, from Acquaintances on up, while at the same time restricting an item like a negligee to only be viewable by intimate connections.

Connection Item Indications

Connections to the user should be able to browse through the user's wish list items and flag them in some way that they are indicating that they will be giving that item to other connections that the user will have.

The item, depending on its type, may allow:

- Only one connection to place an indication on that item (for specific goods)
- Multiple connections to place an indication on that item (for generic items or experiences)
- No connection can place indications on that item (cash and charities)

Connection Item Indications for the User

The user who created the Wish List should not be able to see any indications that have been made on their wish list. That is, they are blind to these indications. As a phase 2 feature, the user would be able to turn blinding off, but this lack of blindness should be made known to their connections browsing their wish list.

After the user has received the item, they can go through their wish list and indicate that they received the item and which, if any, of their connections gave that item to them. Items will fall off of their wish list if they are specific-type or curio-type items, but remain for the other types. As a phase 2, the system can generate thank you messages that the user can either send through email or copy/paste into another application.

Severing Connections

Any user that has a connection with another user can sever the connection between the two users. This prevents them from viewing each other's' wish lists and removes any indications that were previously active.

Blocking Connection Requests

A user who has severed a connection request should also be able to block the other user from making future connection requests to them. In addition, the user should also be able to reject new connection requests and optionally block the other user from making other connection requests in the future. The user should be able to review their blocked connections and unblock users as needed.

Regency Users

A phase 2 feature, the system should allow a user to create an account for a dependent and manage this account on behalf of the dependent until such time that the dependent can take it over. This feature is primarily intended for parents creating accounts for their young children distinct from their own accounts, but could conceivably also be used for caretakers of persons who have neither the interest nor ability to manage the account for themselves. These regency accounts should clearly indicate the user who is managing the account on behalf of the other user.

Collective Indications

A phase 2 feature, the system would allow multiple connections to be able to donate to the purchase of a specific gift. One connection should be designated as the lead on the collective, who would be ultimately responsible for purchasing and delivering the gift. The platform will act as a broker for the collective, collecting donations for the gift and releasing the funds to the lead once the target funding has been achieved.

Site Integrations

Phase 2 and beyond features, the system will leverage the information available through other online platforms and pull the information about the item in question into the system to be displayed within our application as a mashup.

Item Comment Threads

A phase 2 feature, this would allow connections to make comments about specific items on the user's wish list and would allow other connections to respond to these comments. These comments are intended to help the coordination efforts between the connections and will live only as long as the item (or generic indication) remains on the list. Connections should also be able to flag comments that are abusive or derisive to moderation, who will be able to hide flagged comments.

Requirements Traceability Matrix

The functional requirements for the project detail the specific functional elements that is needed for implementation and testing of the web site.

1. Page Structure (Header/Footer)
   - 1.1 Every header will display the company logo that redirects to the site homepage.
   - 1.2 Every footer will display links to the company's social media sites.
   - 1.3 Every footer will display the "Terms and Conditions".
   - 1.4 Every footer will display the "Privacy Policy".
   - 1.5 Every footer will display a "Contact us" link that will include an email address for users to use when reaching back to the company.
2. Homepage
   - 2.1 The Homepage will display the company logo.

2.2 The Homepage will have a link to the “Log in” page.

2.3 The Homepage will have a link to the “Sign-up” page.

2.4 The Homepage will have a link to the “Help” page.

2.5 The Homepage will have a link to the “Registry Search” page.

2.6 The Homepage will have a link to the “Learn More” page.

3. Sign-up Page

3.1 Will display an active form field for the user to enter their information. At the bottom of the form will be a submit button that allows the user to submit their information. The form should include the following fields:

3.1.1 First name

3.1.2 Last name

3.1.3 User name

3.1.4 Email

3.1.5 Password

3.1.6 Phone number

4. Log-in Page

4.1 Will display active form field for the user to enter their login credentials. The system will authenticate the user upon submission of credentials. The form will include the following fields:

4.1.1 Username

4.1.2 Password

5. Welcome Page

5.1 Will display link “My account” at the top of the page.

5.2 Will display link to "My Connections" page

5.3 Will display logout link.

5.4 Will display link to "My Registries" page.

5.5 Will display link to "My Events" page.

6. Account Page

6.1 Will display an active form for users to add or make changes to their account as desired. The form will include the following fields:

6.1.1 First name

6.1.2 Last name

6.1.3 Email address

6.1.4 Phone number

6.1.5 Home address

6.1.6 Password

6.1.7 Confirm Password

6.1.8 Submit changes button

7. Learn More Page

7.1 Will display link to display About us page.

7.2 Will display FAQ's.

7.3 Will display social media account links.

7.4 Will display Photo disclaimer.

7.5 Will display privacy policy.

7.6 Will display terms and conditions.

8. About Us Page

8.1 Will display mission statement.

8.2 Will display site story.

9. Events Page

9.1 Will display calendar with the user’s events marked.

9.2 Will prepopulate common holidays on calendar.

9.3 Will display a create event link under the calendar that will open up an active form. Form will contain the following fields:

9.3.1 Event name

9.3.2 Event date

9.3.3 Registry name

9.3.4 Groups to include in registry

9.3.5 Recurring or non-recurring

9.4 Will display a delete event link under the calendar. When clicked it should confirm with user that they want to remove the event from their calendar.

9.5 User should be able to indicate holidays that are important to them.

10. My Wish Lists Page

10.1 Will display existing lists links.

10.1.1 Will expand lists when clicked on.

10.1.2 Will display option to edit wish list.

10.1.2.1 Will display link to add item to wish list. When clicked on will redirect user to Add item page.

10.1.2.2 Will display option to delete an item from a wish list.

10.2 Will display create wish list link.

10.3 Will display option to select and delete existing wish lists

10.4 Will display create Unwish list link

10.5 Will display existing Unwish lists links

10.6 Will display option to delete Unwish list.

11. Add item Page

11.1 The page will contain a form with the following fields:

11.1.1 Item Name

11.1.2 Item URL

11.1.3 Item Description

11.1.4 Address of store where available

12. My Connections Page

12.1 Will display existing connections with links to their pages if they have an account

12.2 Will display link to search for other users on the platform

12.3 Will display link to delete connection

12.3.1 Once a user clicks on this link the page will ask to confirm. If the user selects yes then they will be asked if they want to block this person from requesting them again,

12.4 Will display link to blocked connections

12.4.1 Will have the option to search for people and block them

12.5 Will display link to send an email invitation to friends and family asking them to join the site.

12.6 Will display pending requests for connection. In an effort to curb abuse and prevent level escalation, it is the approver of the connection request, and not the requestor, to designate the level of the connection.

Requirements Traceability Matrix Test Plan

The functional requirements for the project as described in the requirements traceability matrix will be tested to ensure that the web site is meeting the design and business objectives. Each requirement in the requirements traceability matrix will have a corresponding test case that described how each individual requirement can be validated. These test cases are described in Exhibit F in the Appendix. These test cases will be mapped to each functional requirement as as described in Exhibit G in the Appendix. Routine testing will occur to not only validate new build in the website but also to test previously built portions of the website to ensure that all features are working as intended.

Non-functional Requirements

Security

The security of the system will be handled both in transit and at rest. Data in transit will be encrypted using digital certificates both between the web server and the client as well as between the hosting environment and the project team members' computers. Data in transit will also have limited protection through the use of utilizing the same hosting environment for both the web server, the database server, and other server resources to prevent information from leaking out of the hosting environment's network.

Data at rest will be protected through the use of IP address whitelists of authorized computers allowed to connect to the database without going through a proxy. In phase 2 of the project, we will also investigate the steps needed to encrypt the databases at rest to prevent attackers from reading the information should the hosting environment experience a breach.

In addition, the risk of various attacks like SQL injections will be mitigated through the use of parameterized queries. Other attack vectors, such as XSS, will be mitigated through the use of <script> tag stripping. The system will also be protected through the use of good design and coding practices.

Audit

All transactions that happen within the system will be logged to some kind of retrievable format. This logging will be done independently of the SQL logs that are recorded in the database. Access to these logs will be restricted to team members and others that the team authorizes to audit the system.

Performance

While specific performance measures are not being assigned at this time, the system should perform in such a way that it does not feel as if the user is waiting on it or that it induces a feeling of a loss of control on behalf of the user. We will be tuning the performance of the system based on the different performance levels offered by the hosting provider as we try to balance the needs of a performant system against the anticipated costs associated with the various performance tiers.

Availability and Reliability

The system will be hosted through the use of a PaaS or IaaS platform offered by a large and well established cloud provider. Depending on cost, the system may be replicated into one or more redundant availability zones offered by the hosting provider to fail over into should the primary availability zone become unavailable or goes down. The goal is to provide 99.999%

availability once the system has passed from its development phase and has graduated from testing as part of the initial deployment.

To help aid in the availability of the system, after the initial go-live, new features will be extensively tested in a test environment and changes or updates will only be applied to the production environment only when 3 or more team members of Team TEENG agree to push the update on a pre-determined schedule. Updates will be applied in such a way that they can be rolled back in the event that the update fails or otherwise does not work as designed or intended.

The team will also develop a quality assurance plan and follow it as part of our availability and reliability planning.

Recovery

Our recovery plan covers two specific failures in the system. The first failure is the catastrophic loss of the system, including web server and database, or parts thereof. We will be leveraging source control solutions that keep track of the current version of the system that can be used to recover the business logic and code of the system itself. We will also be leveraging the automated backups provided by the hosting provider, assuming that their backup schedule is acceptable to our needs. In the event of a catastrophic loss of one or more parts of the system, we will:

1. Take an assessment on the components that were affected
2. Determine if the current build is recoverable in its current state
3. If it is not recoverable, we will take the latest version of the software in source control and re-apply it to the web server. We will also keep offline copies of the web server configuration that can be used, if needed
4. We will also undertake to do a data restore from the stored backups.

5. Once the recovery steps have been completed, we will conduct a thorough regression test of the system to validate that the restore was done correctly and that no new defects or unexpected behaviors were observed in the system

The second failure that we will be planning for is a breach, or disclosure to unauthorized third parties, of the data stored in our system. Our recovery process, once we discover that a breach has occurred is to notify all users for whom we have email addresses for that a breach of our systems has occurred and recommends that they change their passwords to our system and any other systems that they may re-use passwords for. Our goal is to be as transparent as possible to avoid creating the impression that we are attempting to hide or minimize the fact that our system has been breached. After the notifications to users via email has been sent out, we will conduct a post-mortem of our systems to identify how the breach occurred and which systems might have been affected. Based on the post-mortem, we will develop a plan that not only closes the gaps that caused the breach to begin with, but also examines what other undiscovered failure points may also be affected and proactively develop fixes for them as well.

Compatibility

The system will be designed as a cross-platform web app accessible through a modern web browser targeting the HTML5 standard. The web app will also be designed to be responsive so that it is compatible with platforms of various screen sizes, including desktop, tablet, and smartphone.

The backend of the server will use commonly available languages and development frameworks targeting an Apache web server for the broadest potential installation base available through the various cloud hosting providers. The database to be used will be MySQL-compatible and using ANSI SQL where possible to ensure the cross-compatibility between the native DB and others that we may move to in the future.

Maintainability

The system will be primarily written in PHP using commonly available development tools and frameworks. While PHP does not support MVC natively, the code will be written in such a way that mimics the intent of MVC to ensure the extensibility of the system to new features. Where possible, the system should be designed that expects future changes to the underlying system and can accommodate new changes as they become known in as clean of a manner as possible.

Usability

The usability of the system is going to be of paramount importance if we are to see widespread user adoption of the system. This will be accomplished by both sticking to good philosophies of design as well as listening to our users and our testers of the system of usability issues that they may encounter.

Known user-hostile design, such as using tables or frames for layouts, will be avoided to prevent usability mistakes from occurring in the first place. After the system becomes operational, regular usability testing of the system, using actual customers, will be undertaken to help optimize the design of the website.

As a phase 2 feature, we may implement A/B testing of new features with our users and use the data collected in these tests to help guide where we should be spending development efforts on.

Internationalization / Localization

For phase 1 of the project, it will be written in English for a primarily American audience using American style-formatting, such as for dates. In phase 2 and beyond, we can look at implementing internationalization at the global level in the system to expand our appeal beyond our initial customer base. Various language strings can be translated when we do this to help support the localization efforts in phase 2.

Documentation

The system should be well documented with easily retrievable functional, non-functional, and technical specifications written up prior to any development done on the system proper. Source code will be considered one form of documentation as will the comments written in the source code to aid other developers in writing and maintaining the code. This documentation will be updated on a routine basis and made available to team members as they execute their parts in the design and development of the system.

System Interface and Design

Site Map

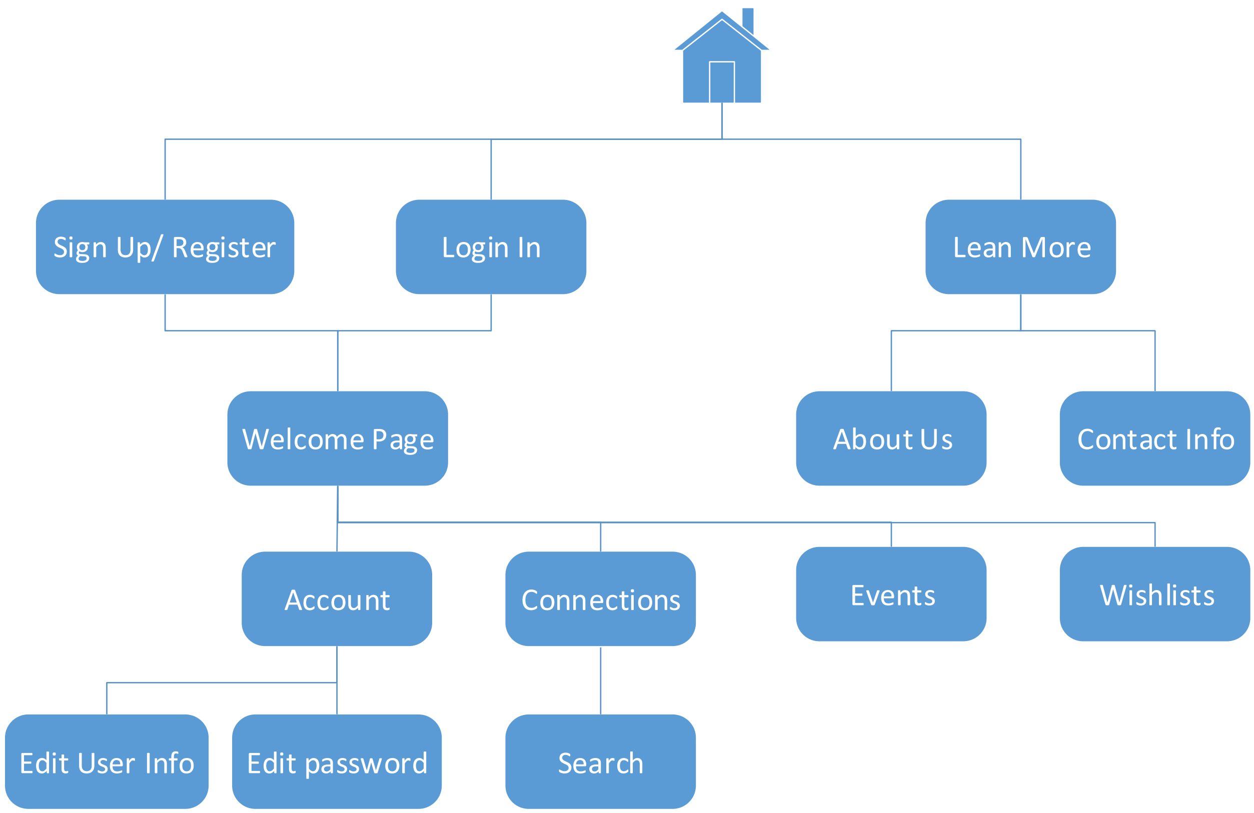

Fig 5. Web Site Map

Home Page

Fig 6. Home Page Mockup

Welcome Page for New Users

WELCOME

SEARCH	ABOUT	HELP	CONTACT

Teengs for all!

Everyone in the family has a way to use Teeng.
Your daughter on an iPad. Grandma on the desktop PC. On the go with mobile editions for iPhone, Android and other mobile devices.
Instantly check lists and preferences wherever you are.
All devices synchronize automatically.

Fig 7. Welcome Page for New Users Mockup

User's Personal Page

21
Needed

0
Most Wanted

25
All Items

Fig 8. User's Personal Page Mockup

Wish List for User's Personal Page

Gift Cards

FOREVER 21

amazon

BevMo!

Cosmetics

$18.50
Ulta Beauty

$19.99
Shany Glamour Girl
Makeup
Amazon.com

Clothing

$14.99
Walmart

$39.99
Victoria's Secret

$29.99
Venus.com

Electronics

69.99
Roomba Robot
Best Buy

Karaoke USA - MP3
Karaoke System - Black
$299.99
Best Buy
Free Shipping

FUJIFILM Instax Mini 9 Instant
Camera
$69.90
Tillys

Fig 9. Wish List for User's Personal Page Mockup

Welcome User's Account Page

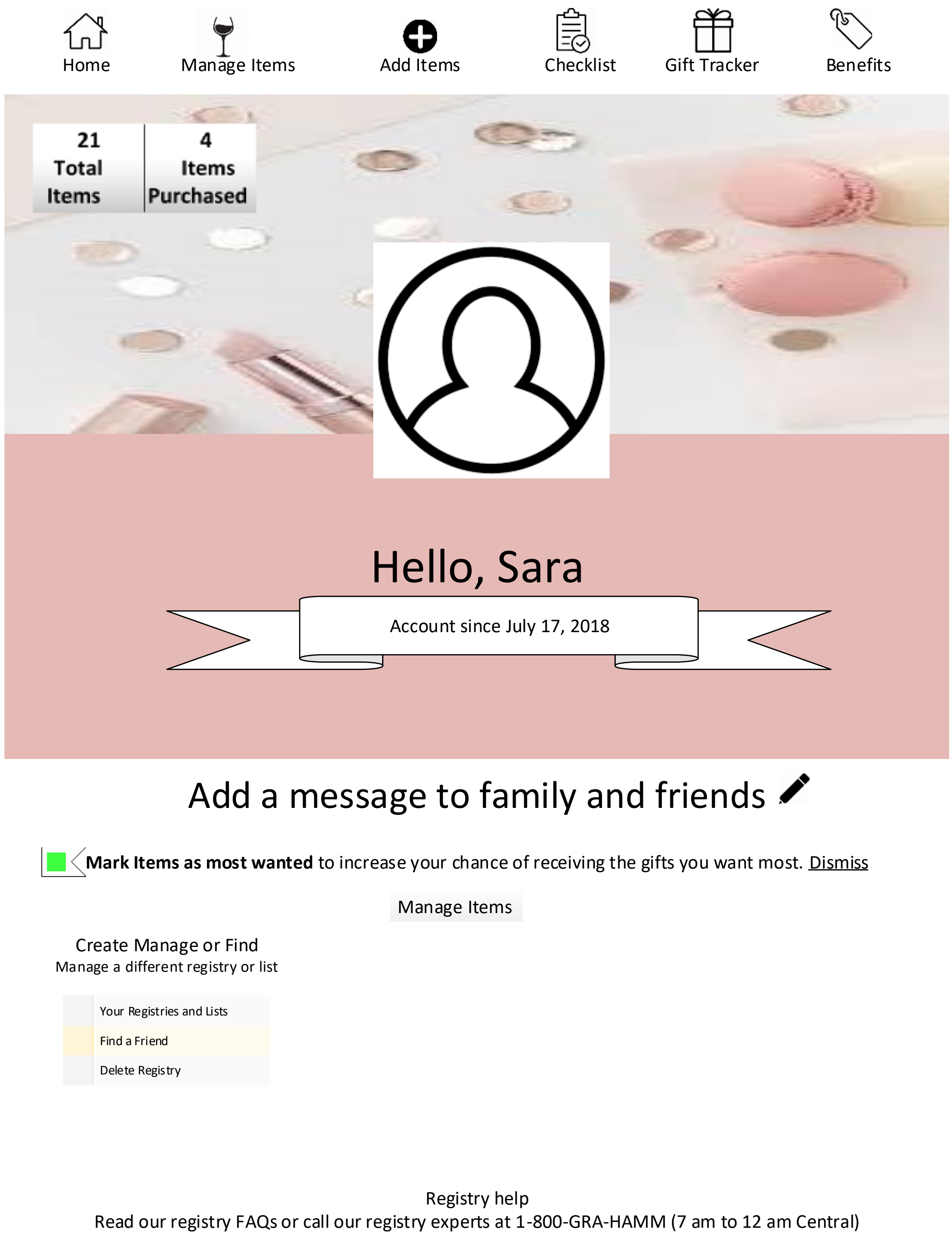

Fig 10. User's Account Page Mockup

Search for Users Page

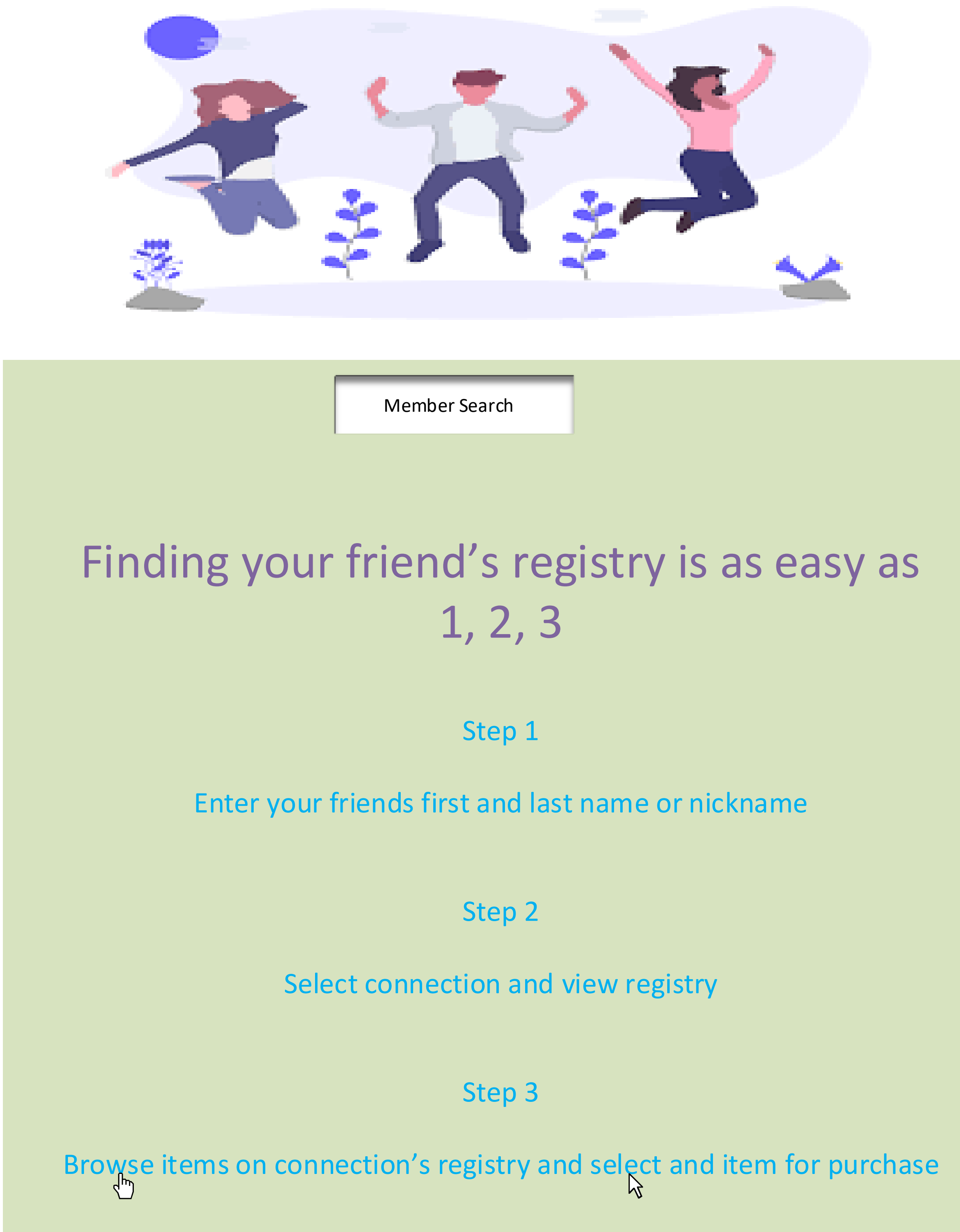

Fig 11. Search for Users Page Mockup

Database Design

Entity Relationship Diagram

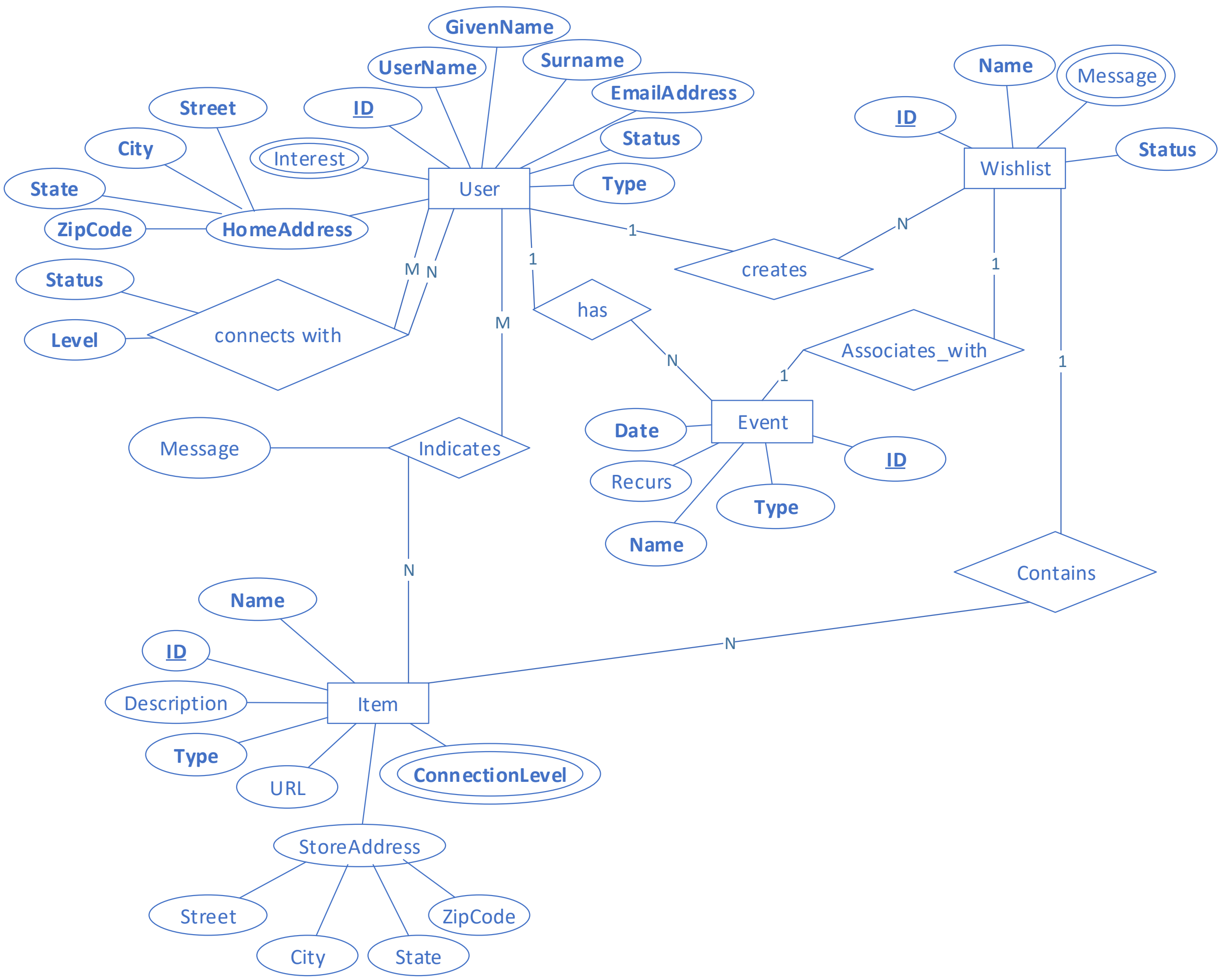

Fig 12. Entity Relationship Diagram

User Tables

Fig 13. User Tables

Risk Management Plan

Risk Management Process

Our team is going to follow a basic six step risk management process which will include:

1. Identifying risks
2. Analyzing risks
3. Prioritizing risk
4. Assigning risk ownership
5. Responding to risks
6. Monitoring risks

The six step process will allow us to properly follow through on the risk path and mitigate any risks that we may come across through the course of this project. The risk management process is going to be very crucial in making sure we analyze every risk in the best way possible along with working together as a team to respond.

Identifying risks.

The team will work together and independently to identify the risks that we may encounter, which will be recorded in the risk register as and when they are thought of or come across. A risk may be come across while working on independent responsibilities through the project timeline. The risks may also be brainstormed or encountered through team meetings which will allow the team to collaborate and think of the risks accumulatively. Brainwriting is a method that may be used during team meetings which will lead to better more fruitful brainstorming sessions. Finding individuals relevant to the experience and setting up interviews with them may also be a method which will allow better insight into the topic at hand. Looping in resources will also allow for the team to figure out different perspectives on the same risk and how it can be handled. Through the identification process the team must be careful and make sure they do not fill up the risk register with risks that are outliers or not risks at all, all the risks written should be well thought through from the root cause onwards.

Analyze risks.

Each risk will be evaluated to determine the likelihood of the risk to occur. We will proactively address the impacts the risk may have to the project such as avoiding potential litigation, addressing regulatory issues, reducing exposure, and minimizing impact. Qualitative and quantitative risk analysis will be utilized to assess these risks by determining the risk factor in terms of how it impacts the project across a variety of metrics.

Prioritize risks.

Each risk will be evaluated to understand what resources will be needed towards resolving the risk in later stages. Each risk will be categorized as high, medium, and low with respect to their impact on the project so that each risk may be given priority and attention.

Assigning risk ownership.

As risks are identified, we will assign a team member to take ownership of the risk to create accountability in the risk analysis, response, and mitigation processes. Risk owners will be determined by who has appropriate knowledge about the risk so that we can ensure the risk is mitigated properly. In some cases, the entire team will be assigned ownership because the risk may be an accumulative issue striking across all areas of responsibility. This differs from risk to risk depending on whether it is a risk affecting the entire project as a whole or just specific aspects of the project.

Responding to risks.

As a team, we must ensure that risks are addressed as we find them. Using the risk management process outlined in this document, we will create a response plan for the risk commensurate with the likelihood and consequences of the risk. The risk owner will develop one or more risk mitigation strategies and present them to the group for feedback and approval. If the risk identified is dire, an emergency meeting will be scheduled between the risk owner and the team leader to take immediate action on the risk, with an update presented to the team at the next team meeting.

Monitoring risks.

After the risk response plan has been implemented, the risk must be monitored by the the risk owner to ensure that the risk response plan is on track and to also ensure the risk does not manifest itself again. The progress of the risk from detection to resolution will be tracked and monitored. The risk owner will communicate the progress with the risk response to the team to ensure everyone understands the risk and what course of action was taken in case it impacts their part of the project. Here we will focus on the communication aspect as well as the documentation aspect to ensure that the risk is identified and resolved well.

Risk Responses

For the risk management strategy we have a Risk Register which we will be monitoring and updating through all phases of the project. The Risk Register is a constant tracker of the risks we may have faced, are facing or will face during the working of this project. The Risk Register has all the details necessary to analyze the risk level, impact and mitigation strategy.

Risk mitigation.

Mitigation plans for each possible risk have been highlighted in the Risk Register, the reduction of impact in the event of a risk actually occurring will be handled in a timely manner with the necessary legalities such as notification of appropriate authorities as well as notifying users as and when needed. The Reduction of impact will be strongly linked to the early detection of the event along with the necessary protocol to reduce any adverse effects on our users and company.

Transferring risk.

We may pay an external party to handle our risk mitigation strategies and contingency plans in order to make sure the appropriate amount of attention is given to the mater.

Avoiding risk.

Our initial project scope and implementation plan has been mapped out in order to reduce any form of risk we may see possible, but at the same time risks cannot be avoided entirely. Our project team has kept all risk factors in mind while planning the project out in order to ensure we avoid as many risks as we can in the early stages.

Sharing risk.

The risk may be allocated to our external factors like AWS, wherein any risk in terms of our Cloud security must be handled by the AWS team and is their responsibility.

Retaining risk.

We as a company accept the risks highlighted in the Risk Register and we are working and taking necessary steps towards reducing those risks. We accept the existence of the risks as well as acknowledge the necessary mitigation steps.

Risk Response Control

Execution of the risk response strategy will be handled by the entire team even if there are specific team members responsible for the affected aspect. The team will all take part in ensuring the risk is mitigated and the proper steps are taken to reduce any adverse impacts from the risk. All triggers stated in the Contingency Plan will be thoroughly monitored and the contingency plans in place will be executed as and when needed. All the contingency plans will be initiated in a timely manner which is necessary to provide the accurate response and change needed. The team will continually be monitoring every aspect of the project in all its phases to ensure the detection of new risks that may emerge through the project lifecycle.

Contingency Plan

Risk Event	Response	Contingency Plan	Trigger	Responsible Party
Not sticking to establish design plans and culling any features beyond the minimum viable product	Immediate refocus	Circle back to initial Project Scope and recognize what needs to be done and what is becoming a scope creep factor and needs to be stopped.	Unmapped/unscheduled additions to project implementation	Team
Accumulating non-necessary expenditures	Reduce	Cross-check financials and ensure any unnecessary expenses are immediately curtailed.	Over-spending	Team
Not keeping stakeholders informed and addressing concerns immediately	Immediate refocus	Call a meeting with stakeholders and entire team to work on any concerns	Any concerns voiced by Stakeholders	Team
Not Adjusting marketing strategies based on current trends	Reduce	Marketing team must make sure we are up to date in terms of our consumers' needs and the current market	Competitors doing better than us in terms of customer base and revenue	Tai

Not having state of the art security along with trustworthy backups	Reduce	Security team should update all security requirements in order to ensure all data is safe and backed up	Any data leaks or cybercrime activity	Nupoor
Not having good backup and clean-up strategy	Immediate refocus	Backup strategy must be revamped and all clean-up strategies should eb revisited to ensure best customer satisfaction	Unhappy customers	Nupoor

Table 7. Contingency Plan. Identifies the responses to various issues that can arise.

Risk Register Table

ID	RISK	Identified By	Mitigation Strategy	Likelihood	Impact	Detection Difficulty
1	Scope creep	Team	Sticking to establish design plans and culling any features beyond the minimum viable product	Medium – 3	High – 5	Low - 1

2	Scheduling issues	Team	Redefine the tasks in the project along the critical path	Low – 1	High – 4	Low - 1
3	Cost Overruns	Team	Reduce or eliminate non-necessary expenditures	Medium – 2	High – 5	Low - 1
4	Loss of stakeholder satisfaction	Team	Keeping stakeholders informed and addressing concerns immediately	Low – 1	High - 5	Low - 2
5	Change in the market	Team	Adjusting marketing strategies based on current trends	Medium – 3	High – 4	Medium - 3
6	Breaches in security	Nupoor	State of the art security along with trustworthy backups	High – 4	High – 5	Medium - 3
7	Catastrophic loss	Graham	Having good backup and clean-up strategy	Low - 1	High - 4	Low - 2

Table 8. Risk Register. Documentation of the various risks that can arise in the project.

Quality Assurance

Quality assurance helps control the development process to avoid major issues that would hinder project completion. Our development process will be as follows:

1. Analysis of requirements
2. Design
3. Implementation
4. Verification or testing
5. Maintenance

Our quality assurance process will be as follows:

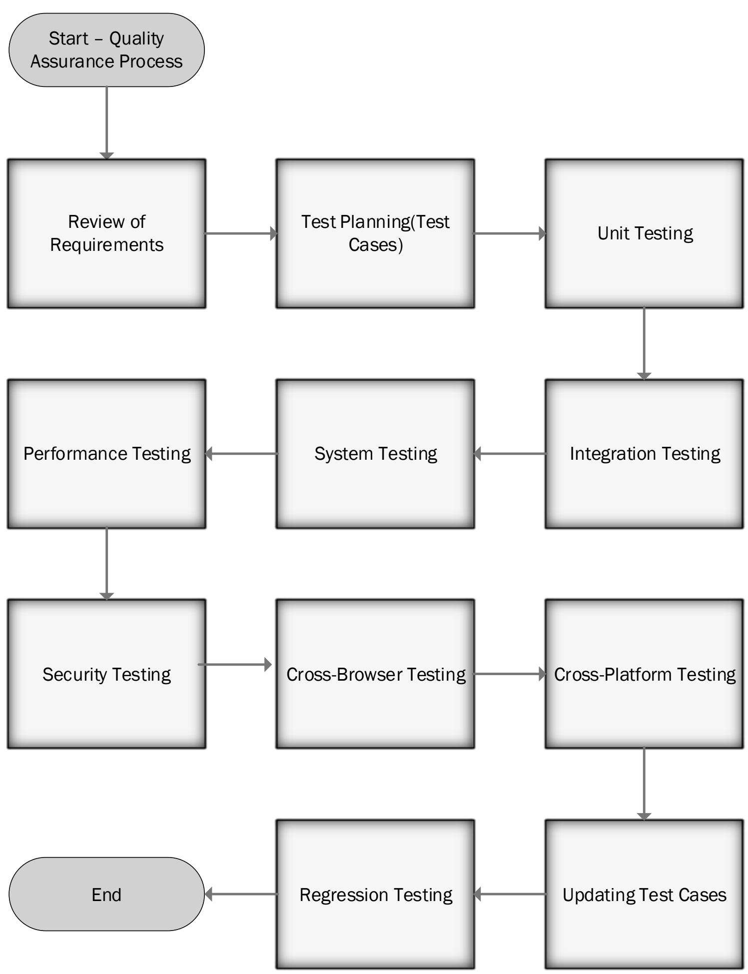

Fig 14. Quality Assurance Workflow

This process can be categorized into five steps as follows:

1. Review requirements and documentation
    - We will begin our work on the project in parallel with documentation generation. We will review the requirements and documentation for redundancies, executability, completeness, and verifiability. The goal is to analyze our system architecture and product for discrepancies. This will reduce our expenditure by detecting errors before the cause an issue as well as result in a better project for lower labor inputs. We will gather all related documentation and maintain an internal knowledge base
2. Plan and prepare test cases
    - Once we have established our requirements, we can plan test cases. For example, we will describe actions quality assurance inspectors will need to perform to ensure that our web site is functioning as intended.
3. Design test cases
    - When we have finished the development stage, we will begin running test cases. The primary aim is to ensure that any solution developed was properly put together from a technical perspective and meets the intended requirements. We will:
        I. Verify that different components work as a single system.
        II. Check system behavior for normal operations and peak load
        III. Determine the load at which our system will break down
        IV. Ensure that we have a sufficient security protection
        V. Test cross browser operations - Opera, Mozilla, Safari, etc.
        VI. Test cross platform operations- IOS, Android, Windows, etc.

VII. Perform regression testing

4. Report and measure
    - When quality assurance inspectors discover bugs or site errors, they record it in our bug tracking log. This will help to make sure that the entire team is on the same page during the improvement process as well as simplify communication. Each issue will receive a priority level to ensure that each issue is resolved based on urgency and people available
5. Verifying fixes
    - When developers fix issues the quality assurance inspectors will need to verify the resolutions implemented. The resolution will be logged in the bug tracking system once the issue is no longer detectable

Change Management Process

Changes to the Gift Registry Project must be carefully considered and the impact of the change must be clear in order to make any type of approval decisions. The following steps comprise team TEENG's change control process for scope changes:

1. Identify the need for a change (Any Stakeholder)
    - Requestor will submit a completed TEENG change request form to the project manager
2. Log change in the change request register (Project Manager)
    - The project manager will maintain a log of all change request for the duration of the project
3. Conduct an evaluation of the change (Project Manager, Project Team, Requestor)

- The Project Manager will conduct an evaluation of the impact of the change to cost, risk, schedule, and scope

4. Submit change request to Stakeholders (Project Manager)
   - The Project Manager will submit the change request and analysis to the Stakeholders for review
5. The Stakeholders Decision
   - The Stakeholders will discuss the proposed change and decide whether or not it will be approved based on all submitted information.
6. Implement Change (Project Manager)
   - If a change is approved by the Stakeholders, the project manager will update and re-baseline project documentation as necessary as well as ensure any changes are communicated to the team and stakeholders.

Any team member or stakeholder may submit a change request for the Gift Registry Project. All change request will be logged in the change control register by the Project Manager and tracked through to completion whether approved or not.

Version control.

The versions of the software will be identified by the date of commit, compilation, or publication date in reverse order followed by a period and an incrementing number. The following example displays the second release published on November 17, 2018: 20181117.2

Change request form.

Requests to make changes to the project will be done using the Change Request form seen in Exhibit A.

System Testing

For this project we will employ an agile approach through weekly iterations. Each week there will be requirements identified for completion to be delivered as a team. These identified requirements will be verified complete and then tested. Tests for planned functionality will be created and modified as deemed necessary by the team. After the project is completed the team will develop standardized tests that will be performed on a set schedule. Although automated unit tests are time efficient, there are no automated functional tests at this time. The team will consider automated unit testing after project completion.

Function testing.

A checklist, as modeled below, will be created in an attempt to ensure that everything on our website works as intended.

Test No.	Page Name	Page URL	Object	Pass/Fail
1				
2				
3				
4				
5				

Table 9. Function Testing Checklist. Documentation template for recording functional tests completed

Links.

We will start with all internal and external links. The aim of the test will be to verify that all links are correct, that there are no missing links, and that there are no unreferenced pages.

Forms testing for all pages.

We will be using several forms for interactive communication with site members. These forms must be tested to ensure all data entry boxes can be filled correctly, only allowed characters or values are permitted to be entered for data entry boxes and that all check boxes are fillable correctly.

Cookies testing.

We will be using cookies for several purposes. We will test pages with disabled cookies to ensure no files are stored on the user's computers and then we will test pages with cookies enabled to ensure the file entries are made.

HTML/CSS validation.

We will test for HTML syntax errors to ensure proper function for users and verify that the site is available to the public on search machines. We will also verify that our site is accurately mapped in both HTML and XML formatting.

Content testing.

Once we have tested for all the functionalities of the website, we will need to test visual aspects of the site. This includes grammar and spelling mistakes, image sizes, image placement, font sizes, font colors, and navigation. We will need to make sure that our content is visible, legible, logically linked, properly structured, clear and that no information is incorrect.

User Interface testing.

We will need to test the user interface to ensure that users are seeing our pages as we intend them to be displayed regardless of what device or browser they are using.

Figure 15 displays the logic for the testing process.

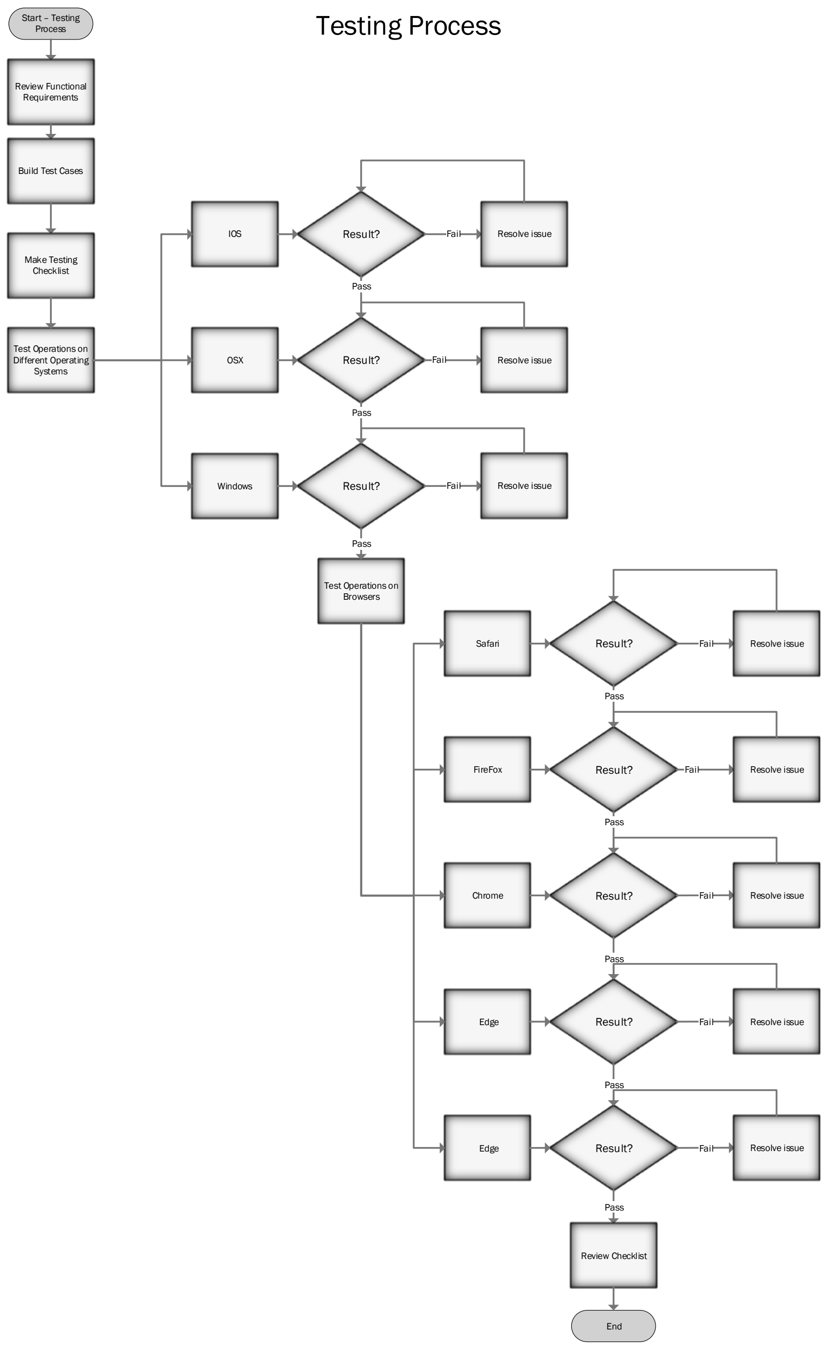

Fig 15. Testing Process

Bug Tracking

A bug, in relation to software, is an error or flaw in a computer program that causes it to produce and unexpected result or to behave in ways unintended. Bug reports will be submitted by both users and personnel. To circumvent the need to create a separate web page, bug reporting will be handed via email.

Reporting process.

The reporting process will go as follows:

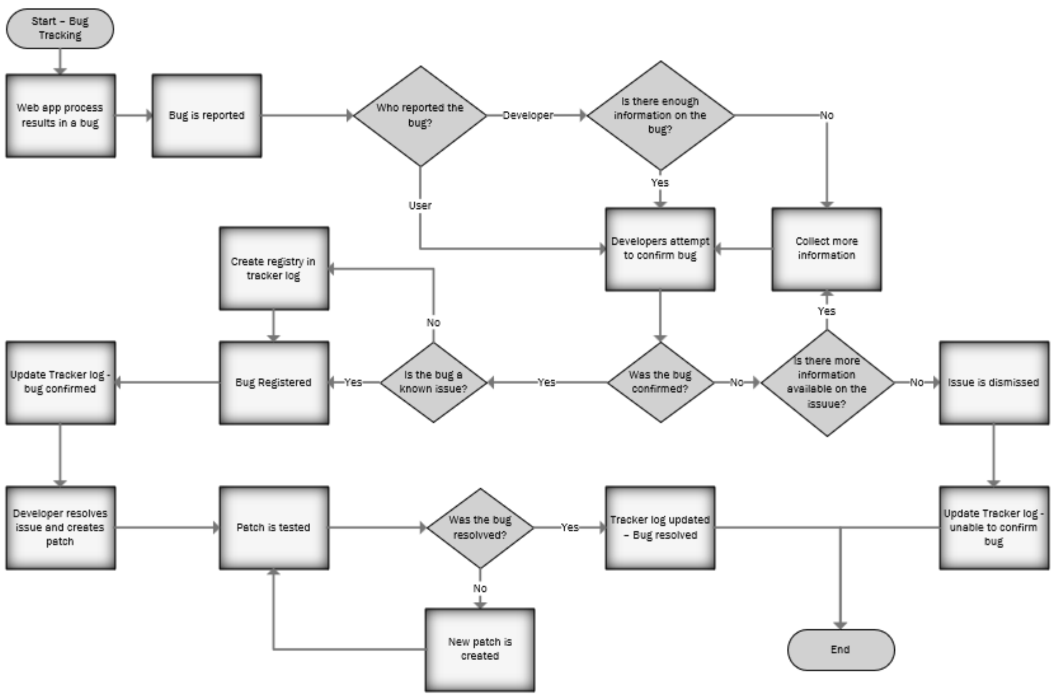

Fig 16. Reporting Process

The process will follow the same course regardless of who submits a bug report but it shall be noted who makes the report. When an issue is added to the tracker log, the status could be depending on the situation:

1. New
2. Pending Confirmation
3. Confirmed/dismissed
4. Awaiting resolution
5. Resolved

When issues are first reported they will be set to new. Once they are reviewed and assigned to developer they will be set to pending confirmation. Then when the developer either confirms or makes every attempt to confirm the bug then the issue will be set to confirmed or dismissed. Afterwards developers will create a patch, implement it and then test the resolution. Last but not least, when the issue is resolved it will be marked resolved.

Issue priorities.

1. Critical: The trunk does not work. Significant parts of the source are broken preventing key operations.
2. Urgent: Portions of the source are hindering advertised functions in a major way.
3. Medium: Issues are hindering proper function but applications are still working. There are workarounds for the issues.
4. Low: There is a minor loss of advertised function. Typically, this is just a nuisance but does not significantly affect proper function of the site. This may be a result of the site being accessed from an uncommon platform.
5. Very low: These issues are related to cosmetics, misspellings, misaligned graphics, etc.

Issue reporting form.

Issues will be tracked using the issue reporting form found in Exhibit B.

Defect tracking log.

The project will use the log found in Exhibit C for the purposes of tracking defects.

Usability Testing

Our primary goals of usability testing are to set a baseline of user performance, establish and validate user performance measures, and to identify any potential concerns with the website's design. Through this process we will be able to improve our website's efficiency as well as our end user's satisfaction. We strive to determine inconsistencies and usability problem areas within the user's interface and content areas. This may include but is not limited to navigation errors, presentation errors and control usage problems. We will have participants in these usability test exercise the website under a controlled test condition with representative proctors. Data will be recorded to observe how effective, efficient and well-received user interaction is.

Participants

The participants in these usability tests will be assigned a set of tasks to complete in as efficiently as possible within a timely manner. Afterwards they will be asked to provide feedback in regards to their usability and their acceptability of the interface they interacted with. The participants will be asked to provide the most honest opinion as possible.

Procedure

Participants take part in these tests using a computer of their choosing. The team will ensure that they perform tests on as many operating systems and platforms as possible. The participant's interaction with the website will be monitored by the team representative that will be observing from the same room. The team representative will brief the participant on the Website and instruct them that they will be evaluating the website, rather than the team representative evaluating the participant. The team representative will also instruct the participant to think aloud. The participation will be voluntary and the participants may choose to cease the usability test at any time. Prior to beginning each task, the participant will read aloud the task description from the printed copy and then begin the task. The time measurement will begin when the participant begins the task. After each task, the participant will complete the post-task questionnaire, found in exhibit I. After all task scenarios are attempted, the participant will complete the post-test satisfaction questionnaire, found in exhibit I. The team representative observing the participant will record the participant's actions and verbal comments. The team representative will also observe any problems encountered, concerns, coding bugs, and procedural errors.

Usability Metrics

The goal of the usability testing plan is to gather actionable and quantifiable data that can be used to improve the usability of the application. The two primary metrics that we will be collecting are for task completion and each user's subjective evaluation.

Task completion.

Each task will require that the participant obtains or inputs specific data that would be used to carry out the course of action during a typical task. The task will be completed whenever the participant indicates that they have accomplished the goal of the task, regardless of whether the task was completed successfully or not. The task may also be marked as completed if there is an error that prevents the user from accomplishing a task and the test observer will make note of such error.

Subjective evaluations.

Subjective evaluations in regards to the ease of use as well as the satisfaction of the end user will be collected via questionnaires, which will utilize free-form responses and rating scales.

Lessons Learned

Over the course of this project, we have grown as a team and learned many new things as a result of our effort and actions supporting one another for a common cause. One of the key lessons that we learned is that this project is very large and demanding project and that success will only be possible if we work together as a team, each one handling differing responsibilities but all coming together to create the project.

Another lesson that we learned is that even a project of this size has numerous interdependencies that all have to be accounted for. By working through the milestone requirements list as well as the amalgamated experiences of each member of the group, we were able to identify and address these interdependencies in a systematic way.

Over the course of this project, we have found that time management is of the upmost importance. We all had to carve out time from our busy schedules to accommodate this project, but where we stand today, we feel that the hours that we have put in together have been well worth it.

An eye-opening lesson that we have learned is just how much of the content that we have learned in other classes has come into play in the course of this project. The education we received in those other classes not only addressed the various aspects of our project, but also demonstrated to us how these various classes relate to each other and how they can be applicable to the real world.

As part of our database design, we were able to gain a better understanding on how to implement entity relationship diagrams using Chen’s notation.

Part of our project is to develop custom iconography for our web site. We hired a graphic designer to create artwork for us. This was a new experience for us and we found it rewarding.

Appendix

Exhibit A. Change Request Form

Change Request

Date

Project Name:

Date Request Submitted:

Title of Change Request:

Change Order Number:

Submitted By:

Change Category: ☐ Scope ☐ Schedule ☐ Cost ☐ Technology ☐ Other

Description of Change Request:

Events that made this change necessary or desirable:

Justification for the change/why it is needed/desired to continue/complete the project:

Impact of the proposed change on:

Scope:

Schedule:

Cost:

Staffing:

Risk:

Other:

Suggested implementation if the change request is approved:

Required approvals:

Name/Title	**Date**	**Approve/ Reject**

Exhibit B. Issue Reporting Form

Summary	
Reporter	
Submit Date	
Description	
URL	
Screenshot	
Platform	
Operating System	
Browser	
Severity	
Assigned to	
Priority	

Description	
Steps to reproduce	
Expected result	
Actual result	
Additional notes	

Exhibit C. Defect Tracking Log

DEFECT TRACKING LOG

Webpage name: TEENG Registry

Webpage URL: https://teeng.org

Purpose: To ensure that web site meets intended performance specifications. This spreadsheet will be used to track defects. The goal is to find the majority of the site's bugs before going live but there will always be things that are missed. This log will be used to document and test defects that must be corrected after project completion. This form will make it easier to monitor the progress of bug corrections. This form may be used by any member of the team.

Issue No.	Creation date	Logged by	Description	Priority	Assigned Date	Estimated time to resolve	Status	Resolution	Resolution Date	Actual Time to Fix	Root Cause
1	1/22/19	Graham	Unable to connect to DB	Critical	1/22/19	20hrs	Open	Working with vendor			

2	1/27/19	Graham	Getting HTTP 503 errors	Critical	1/27/19	2hrs	Open	Need to recreate instance			
3	1/28/19	Graham	Under certain conditions, users will not be able to create wishlists	Urgent	1/28/19	1hr	Open	Debug code and develop fix			

Exhibit D. Meeting Minutes

Minutes: November 29, 2018

Team TEENG

Gift Registry Project

Meeting Minutes

Date: November 29, 2018

Start Time: 6:30pm

Attendees: Tai Butler, Edward Martinez, Eduardo Davila, Nupoor Basmatkar, Graham O'Hea

AGENDA

I. Call to Order

II. Approval of Minutes

Team approved

III. Unfinished Business

- **a.** Project Status
- **b.** Specify Functional Requirements
- **c.** ERD Update
- **d.** Review Sample Docs
- **e.** Compliance Documentation

IV. New Business

Item	**Responsible Members**	**Due Date**
ERD Update	Graham O'Hea	12/4/18
Requirement Traceability Matrix	Eduardo Davila	12/4/18 (fluid)
Site Map	Tai Butler	12/4/18 (fluid)
Meeting Minutes Documentation	Edward Martinez	12/2/18 (fluid)
Create AWS Account	All Team Members	12/6/18
Review Sample Docs	All Team Members	12/4/18

V. Project Status

- All project tasks are on schedule in accordance with the Team TEENG WBS.
- Project Documentation/ Milestone 3 to be complete by 12/5/18
- Design, Coding, Implementation, and Testing to begin

Scheduled Meetings:

December 2, 2018 (Team), 5:00pm

December 5,2018 (Class), 6:00pm

December 6, 2018 (Team & Professor), 6:30pm

Adjournment Time: 8:12pm

Minutes: December 8, 2018

Team TEENG

Gift Registry Project

Meeting Minutes

Date: December 8, 2018

Start Time: 6:00pm

Attendees:

Tai Butler, Edward Martinez, Eduardo Davila, Nupoor Basmatkar, Graham O'Hea

AGENDA

I. **Call to Order**

II. **Approval of Minutes**

Team approved

III. **Unfinished Business**

Item	**Responsible Member (s)**	**Status/ Due Date**
Page numbers on docs	Team	12/13/18
Insert Identifying sentence for tables	Team	12/13/18

IV. **New Business**

Item	**Responsible Member (s)**	**Status/ Due Date**

Update Docs from TEENG.net to TEENG.org	Team	12/13/18
Usability Test 1st Draft	Eduardo Davila Graham O'Hea	12/13/18
Brand Personality/ Marketing Plan/ Logo	Tai Butler	12/13/18
Meeting Minutes/ WBS	Edward Martinez	12/13/18
Compliance Docs	Nupoor Basmatkar	1/12/19

V. Project Status

- **All Project tasks are on schedule in accordance with the Team TEENG WBS**
- **Project Documentation/ Milestone 4 to be complete by 12/19/18**
- **Design, Coding, Implementation, and Testing started on 12/8/18**

Scheduled Meetings:

December 13, 2018 (Team), 6:00pm

Team and Professor TBD

Adjournment Time: 9:40pm

Minutes: January 9, 2019

Team TEENG

Gift Registry Project

Meeting Minutes

Date: January 09, 2019

Start Time: 6:30pm

Attendees:

Tai Butler, Edward Martinez, Eduardo Davila, Nupoor Basmatkar, Graham O'Hea

AGENDA

VI. **Call to Order**

VII. **Approval of Minutes**

Team approved

VIII. **Unfinished Business**

Item	**Responsible Member (s)**	**Status/ Due Date**
SWOT Analysis/ Finances	Tai Butler	In Progress
Graphic Designer	Tai Butler	In Progress/ On Schedule
Coding	Graham O'Hea	In Progress/ On Schedule

Coding	Eduardo Davila	In Progress/ On Schedule
Meeting Minutes/ Finances	Edward Martinez	In Progress
Compliance Docs	Nupoor Basmatkar	In Progress/ On Schedule

IX. New Business

Item	**Responsible Member (s)**	**Status/ Due Date**
Logo Decision	Team	Approved/ 1/09/2019
Graphic Design Details/FAQs	Tai Butler	In Progress
Compliance/Policy	Nupoor Basmatkar, Graham O’Hea	In Progress
Coding	Graham O’Hea, Eduardo Davila	In Progress/ On Schedule
Website Functionality	Team	In Progress/ On Schedule
Meeting Minutes/ WBS	Edward Martinez	In Progress/ On Schedule
Milestone 5	Team	In Progress/ 1/16/2019

X. Project Status

- **All Project tasks are on schedule in accordance with the Team TEENG WBS**
- **Design, Coding, Implementation, and Testing initiated on 12/8/18**

Scheduled Meetings:

Team TEENG meeting with Professor: January 10, 2019 @6:30pm

Team Meeting **Sunday**, January 13, 2019 @5pm

Adjournment Time: 7:26pm

Minutes: January 16, 2019

Team TEENG

Gift Registry Project

Meeting Minutes

Date: January 16, 2019

Start Time: 6:30pm

Attendees:

Tai Butler, Edward Martinez, Eduardo Davila, Nupoor Basmatkar, Graham O'Hea

AGENDA

XI. Call to Order

XII. Approval of Minutes

Team approved

XIII. Unfinished Business

Item	**Responsible Member (s)**	**Status/ Due Date**
Compliance/Policies	Nupoor Basmatkar	Current
Design	Tai Butler	Current
Update Documentation	Team	Current
Update PPT	Team	Current

XIV. New Business

Item	Responsible Member (s)	Status/ Due Date
Coding	Graham O'Hea	In Progress
Usability Testing	Eduardo Davila	In Progress
Turn in Milestone 5	Team	Submitted
Review PPT Presentation	Team	Current
Compliance	Nupoor Basmatkar	Current
Meeting Minutes	Edward Martinez	Current
Design Transparency	Tai Butler	Current

XV. Project Status

- **All Project tasks are on schedule in accordance with the Team TEENG WBS**
- **Design, Coding, Implementation, and Testing initiated on 12/8/18**

  Scheduled Meetings:

  Team TEENG meeting with Professor: January 17, 2019 @6:00pm

  Team Meeting **Sunday**, January 20, 2019 @5pm

  Team Meeting **Wednesday**: January 23. 2019@6:30pm

  Team/ Professor Meeting **Thursday**: January 24, 2019@6pm

  Adjournment Time: 8:30pm

Minutes: January 21, 2019

Team TEENG

Gift Registry Project

Meeting Minutes

Date: January 23, 2019

Start Time: 6:30pm

Attendees:

Tai Butler, Edward Martinez, Eduardo Davila, Nupoor Basmatkar, Graham O'Hea

AGENDA

XVI. **Call to Order**

XVII. **Approval of Minutes**

Team approved

XVIII. **Unfinished Business**

Item	Responsible Member (s)	Status/ Due Date
Design	Tai Butler	Current
Update Documentation	Team	Current
Update PPT	Team	Current

XIX. New Business

Item	Responsible Member (s)	Status/ Due Date
Coding	Graham O'Hea	In Progress
Usability Testing	Eduardo Davila	In Progress
Update PPT Presentation	Team	Current
Meeting Minutes	Edward Martinez	Current

XX. Project Status

- **All Project tasks are on schedule in accordance with the Team TEENG WBS**

Scheduled Meetings:

Team/ Professor Meeting **Thursday**, January 24, 2019 @6:00pm

Team Meeting **Sunday**, January 27, 2019 @5pm

Team/ Professor Meeting **Tuesday**: January 29. 2019@6:00pm

Final Presentation Meeting **Wednesday**: January 30, 2019@6pm

Adjournment Time: 8:30pm

Exhibit E. Configuration of the Development Environment

Setup local web server.

This is used to test the code builds before deployment. Download and install Visual C++ Redistributable for Visual Studio 2017 x86. https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads

Download Apache 2.4 as a Zip file. Do not get the 64bit version. Extract the Zip file directly to the C: drive. Should install into a new folder C:\Apache24. https://www.apachelounge.com/download/

Download the VC15 x86 Thread Safe version of PHP 7 as a Zip file. Create a new folder called PHP directly to the C: drive. Extract the Zip file to C:\PHP\. https://windows.php.net/download#php-7.2

Go into C:\Apache24\conf\ and open in Notepad the httpd.conf file

- Find the section that has a bunch of LoadModule declarations. Create a new line after the last one and add in the following line:

  ```
  LoadModule php7_module "C:/PHP/php7apache2_4.dll"
  ```

- Find the section that asks about the ServerName. Change the line "#ServerName www.example.com:80" to be (be sure that there is no leading hash):

  ```
  ServerName localhost:80
  ```

- Find the section that starts as "<IfModule dir_module>". Update the line in between the XML tags to be:

  ```
  DirectoryIndex index.php index.html
  ```

- Find the section that starts as "<IfModule mime_module>". After the line "#AddOutputFilter INCLUDES .shtml", add a couple of new lines and add in the following lines:

```
AddType application/x-httpd-php .php
AddType application/x-httpd-php .phtml
```

- Go to the very end of the file and add in the following line:

```
PHPIniDir “C:PHP”
```

Save the changes to httpd.conf. Test to ensure that it is working correctly

1. Create a folder in C:\Apache24\htdocs called “teeng”. New path should be:

```
C:\Apache24\htdocs\teeng
```

2. Open up Notepad and paste in the following code:

```
<html><body><p>Web server is working</p><p><?php echo
"PHP is working, too"; ?></p></body></html>
```

3. Save this Notepad file as index.php in C:\Apache24\htdocs\teeng\ and make sure the Save as type is set to “All Files (*.*)” and not “Text Documents (*.txt)”
4. Turn the web server on by:
   a. Going to the Start Menu and typing in cmd.exe to open the command window
   b. Type in the following code:

```
C:\Apache24\bin\httpd.exe
```

5. Open up a web browser and type in the following address:

```
localhost/teeng/
```

6. If you see the message that the web server and PHP is working, the setup is correct
7. Turn off the web server by closing the command window

You will need to turn the web server back on again to run the website for testing. Do this by repeating Step 4, above.

Setup the IDE.

This is used to write and manage the code. Download and install Java. Need to run installer as an Administrator. https://www.java.com/en/download/win10.jsp

Also need to install the JDK. Choose the Windows 64-bit version. https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Download Eclipse IDE. During installation, it will ask which version you want. “Select Eclipse IDE for PHP Developers”. https://www.eclipse.org/downloads/download.php?file=/oomph/epp/2018-09/Ra/eclipse-inst-win64.exe

When you open Eclipse for the first time, it displays the Welcome page. Click the Checkout projects from Git option. After you create your AWS account (see below), I will give you the info you need.

Download Composer and install. https://getcomposer.org/Composer-Setup.exe

Open up the command window as described previously. We need to do two things: navigate to the newly created Eclipse workspace and installing the AWS PHP tools. I’m including the command line prompt for context. Just type in the code highlighted in black:

```
C:\Users\Graham\> cd git\teengCode
C:\Users\Graham\git\teengCode\> composer require aws/aws-sdk-php
```

Setup Amazon Web services.

This is used to host the application. Create an AWS account on a free tier. When you are done, let me know that you have created it and what email address you used to create the account. I will add you to our AWS organization account. https://aws.amazon.com/

Add source control to the project. With the Eclipse project open:

1. In the upper right corner, click the Perspectives button

2. In the dialog, select the Git option and click Open
3. The Eclipse application will change views
4. Click the Clone a Git Repository link
5. A dialog will open. Select the Clone URI option and click Next
6. Paste the following address in the URI field:

   `https://git-codecommit.us-east-2.amazonaws.com/v1/repos/teengCode`
7. The dialog should populate the rest of the fields after the above link was pasted in
8. Enter in the user name and password that I provided to you after you let me know what your AWS account is. Make sure that you click the "Secure in Secure Store" checkbox and then click Finish
9. Add security questions as needed

Setup the database.

This is used to store the data when testing locally. Download and install MySQL Community Server. During installation, it will ask what other components to install as well. Add them all if you can and make sure that Workbench is included.

https://dev.mysql.com/downloads/mysql/

If the installer asks you to set a root password, we will be using the following as the root password:

```
[password redacted]
```

If you didn't set up a root password during installation, it can be setup here in the following way:

1. Open the Start menu and either type in or select "Control Panel"
2. Click the System and Security option
3. Click the Administrative tools option. A new window opens
4. Find the Services application and double-click it
5. In the Services application, find any instances that contains "MySQL" (for example, MySQL80) that also say "Running" in the status column
6. Right-click on the running instance and select the "Stop" option
7. Open up Notepad. Type in the following text:

   ```
   ALTER USER 'root'@'localhost' IDENTIFIED BY '[password redacted]';
   ```

8. Save the file in the root C: directly as mysql-init.txt
9. Start the cmd.exe console (described previously)
10. Type in the following commands in to console, pressing the enter key after each command

```
cd “C:\Program Files\MySQL\MySQL Server 8.0\bin”
mysqld --defaults-file="C:\\ProgramData\\MySQL\\MySQL
Server 8.0\\my.ini" --init-file=C:\\mysql-init.txt
```

To check to ensure that this is working correctly:

1. Open up MySQL Workbench
2. Click on the + sign next to MySQL Connections. A new dialog, Setup New Connection, will open up
3. In the connection name field, type in “teeng”
4. Click the “Store in vault” button next to the Password label. Enter in the password written above and click the OK button
5. Click the “Test Connection” button
    a. If configured properly, you should get a message that indicates this. Close the Successfully made the MySQL connection
    b. If you do not get this message, reach out to Graham

Create a new database for us to store our data in

1. Repeat steps 1 through 4 above
2. Click the OK button in the Setup New Connection dialog
3. A new database, teeng, will be created and displayed in MySQL Workbench. Double-click on the new database to open it
4. In the Navigator pane on the left side of the screen, find the SCHEMAS section. Right-click on any schema in this section and select the Create Schema option from the context menu. A new Workbench tab will be created
5. In the Name field, enter “teengschema” and click the Apply button

6. A SQL window will appear with the actual code that will be run. Click the Apply button
7. You should now see teengschema in the Navigation pane. All tables for our web app will be created here. Close the teengschema Workbench tab

Application operations should never be executed using the root account. Create a new user with limited permissions that will be used by the web app:

1. In the Navigator pane on the left side of the screen, click on Users and Privileges. A new Workbench tab will be opened
2. Click on the Add Account button at the bottom of the screen
3. Fill in the following fields with the following information:

   ```
   Login Name: teengUser
   Password: [password redacted]
   Confirm Password: [password redacted]
   ```
4. Click on the Apply button
5. Click on the Schema Privileges tab under the Details for account teengUser
6. Click the Add Entry… button
7. Click the Selected Schema radio button and find the teengschema option. Select it and then click the OK button
8. Under the Object Rights section, click the following check boxes

   ```
   SELECT
   INSERT
   UPDATE
   DELETE
   EXECUTE
   SHOW VIEW
   ```

9. Click the Apply button in the lower-right corner of the window

10. Close the Users and Privileges Workbench tab

Exhibit F. Test Cases for Requirements Traceability Matrix

Test Case #	Action	Expected result	Test Result
1	Click on the logo in the header.	The user is redirected to the homepage.	Pass
2	Click on the social media site links.	The user is redirected to the company's social media account pages.	Fail – no SM links
3	Click on the "Terms and Conditions" link.	The "Terms and Conditions" are displayed.	Pass
4	Click on the "Privacy Policy"	The "Privacy Policy" is displayed.	Pass
5	Click on the "Contact Us" link	The company's email will display for the user.	Pass
6	Open up "Homepage" URL	The homepage displays as intended.	Pass
7	Search for the company logo in the header	The company logo displays as intended.	Pass
8	Click on the "Log in" link on the homepage.	The user is redirected to the "Log In" page.	Pass
9	Click on the "Sign-up" link on the homepage.	The user is redirected to the "Sign-up" page.	Pass
10	Click on the "Help" link on the homepage.	The user is redirected to the "Help" page.	Fail – No

			help link
11	Click on the" Registry Search" link on the homepage.	The user is redirected to the "Registry Search" page.	Fail – registry is in user account
12	Click on the "Learn More" link on the homepage.	The user is redirected to the "Learn More" page.	Pass
13	Open "Sign-up" page URL	The "Sign-up" page displays as intended.	Pass
14	Click on the submit button on active form in "Sign up" page	The active form is submitted and enters the data into the company database to create an account for the user.	Pass
15	Click on "First Name" field in Sign-up page active form. Enter First name.	User is able to type into field on active form with the appropriate characters.	Pass
16	Click on "Last name" field in Sign-up page active form. Enter last name.	User is able to type into field on active form with the appropriate characters.	Pass
17	Click on "User name" field in Sign-up page active form. Enter user name.	User is able to type into field on active form with the appropriate characters.	Pass

18	Click on "Email" field in Sign-up page active form. Enter email.	User is able to type into field on active form with the appropriate characters.	Pass
19	Click on "Password" field in Sign-up page active form. Enter Password.	User is able to type into field on active form with the appropriate characters.	Pass
20	Click on "Phone number" field in Sign-up page active form. Enter phone number.	User is able to type into field on active form with the appropriate characters.	Fail – no phone number
21	Open up "Log-in" URL.	The log-in page displays as intended.	Pass
22	Click submit button on active form on the "Log-in" page.	The user's credentials will be authenticated and if correct the user will be logged in and redirected to their "Welcome" page.	Pass
23	Click on "Username" form field on the "Log-in" page	User is able to type into field on active form with the appropriate characters.	Pass
24	Click on "Password" form field on the "Log-in" page	User is able to type into field on active form with the appropriate characters.	Pass
25	Open "Welcome" page URL.	The "Welcome" page displays as intended.	Pass
26	Click on the "My account" link on the "Welcome" page.	User is redirected to their account page.	Pass

27	Click on the "My Connections" link on the "Welcome" page.	User is redirected to their connections page.	Pass
28	Click on the "Logout" link.	The user is logged out.	Pass
29	Click on the "My Registries" link on the "Welcome" page.	User is redirected to their registries page.	Pas
30	Click on the "My Events" link on the "Welcome" page.	User is redirected to their events page.	Pass
31	Open "Account" page URL.	Account page displays as intended.	Pass
32	Click on "First Name" field on Account page active form. Enter First name.	User is able to type into field on active form with the appropriate characters.	Fail – PW reset only
33	Click on "Last name" field on Account page active form. Enter last name.	User is able to type into field on active form with the appropriate characters.	Fail – PW reset only
34	Click on "Email" field on Account page active form. Enter email.	User is able to type into field on active form with the appropriate characters.	Fail – PW reset only

35	Click on “Phone number” field on Account page active form. Enter phone number.	User is able to type into field on active form with the appropriate characters.	Fail – PW reset only
36	Click on “Home Address” field on Account page active form. Enter home address.	User is able to type into field on active form with the appropriate characters.	Fail – PW reset only
37	Click on “Password” field on Account page active form. Enter password.	User is able to type into field on active form with the appropriate characters.	Pass
38	Click on “Confirm Password” field on Account page active form. Enter password.	User is able to type into field on active form with the appropriate characters.	Pass
39	Click on the submit changes button on the active form on the “Account” page.	The active form is submitted and updates the data in the company database.	Pass
40	Open “Learn More” page URL.	The “Learn more” displays as intended.	Pass
41	Click on “About us” link.	The user is redirected to the “About us” page.	Pass
42	Click on the “FAQ’s” link.	The FAQ’s display as intended.	Pass

43	Click on the social media links.	The user is redirected to the company's social media accounts.	Fail – no SM links
44	Click on the "Photo Disclaimer" link.	The photo disclaimer display as intended.	Fail – no link
45	Click on the "Privacy Policy" link.	The privacy policy display as intended.	Pass
46	Click on the "Terms & Conditions" link.	The terms& conditions display as intended.	Pass
47	Open the "About Us" page URL.	The page displays as intended.	Pass
48	Open the "Events Page"	The page displays as intended.	Pass
49	Click on the "Create Event" link.	An active form populates and displays as intended.	Pass
50	Click on "Event name" field on the "Create Event" active form. Enter Event name.	User is able to type into field on active form with the appropriate characters.	Pass
51	Click on "Event date" field on the "Create Event" active form. Click on date on populated calendar.	User is able to select date on active form calendar and the date sets as intended.	Pass

52	Click on "Registry name" field on the "Create Event" active form. Enter Registry name.	User is able to type into field on active form with the appropriate characters and the registry populates as intended.	Pass
53	Click on "Groups" field on the "Create Event" active form. Click on groups to be included.	User is able to select groups and add them to the event being created.	Fail – no groups
54	Click on "Recurring" field on the "Create Event" active form. Select recurring.	User is able to select recurring event and set it as intended.	Pass
55	Click on "Recurring" field on the "Create Event" active form. Select non-recurring.	User is able to select non-recurring event and set it as intended.	Pass
56	Click on "Delete Event" link on the "Events" page.	The page prompts the user to confirm the deletion of the event.	Fail – no delete
57	Select yes on "Delete Event" confirmation prompt.	The event selected for deletion is deleted from the user's calendar.	Fail – no delete
58	Select no on "Delete Event" confirmation prompt.	The event deletion is canceled.	Fail – no delete

59	Open “My Wish Lists” page URL.	The page displays as intended.	Pass
60	Click on “Wish Lists” link on “My Wish Lists” page.	The user’s wish lists expand.	Pass
61	Click on a wish list.	The wish list expands displaying items currently on the wish list.	Pass
62	Click “edit” link next to existing wish lists.	The user is able to make changes to their existing wish list.	Pass
63	Click “add item” next to an existing wish list.	The user is redirected to the “Add item page”.	Pass
64	Click on “delete item” link on the “Events” page.	The page prompts the user to confirm the deletion of the item.	Fail – no delete
65	Select yes on “delete item” confirmation prompt.	The item selected for deletion is deleted from the selected user’s wish list.	Fail – no delete
66	Select no on “delete item” confirmation prompt.	The item deletion is canceled.	Fail – no delete
67	Click on “Create Wish List” link.	An active field form will populate.	Pass

68	Click on “Wish List Name” on the “Create Wish List” active form. Type wish list name.	The user is able to type in the name for the new wish list”	Pass
69	Click on the submit button on the “Create Wish List” active form.	The wish list is created.	Pass
70	Click on “delete wish list” link on the “Wish Lists” page.	The page prompts the user to confirm the deletion of the wish list.	Fail – no delete
71	Select yes on “delete wish list” confirmation prompt.	The wish list selected for deletion is deleted from the user’s lists.	Fail – no delete
72	Select no on “delete wish list” confirmation prompt.	The wish list deletion is canceled.	Fail – no delete
73	Click on “Create Unwish List” link.	An active field form will populate.	Fail – no unwish list
74	Click on “Unwish List Name” on the “Create Unwish List” active form. Type unwish list’s name.	The user is able to type in the name for the new unwish list”	Fail – no unwish list

75	Click on the submit button on the “Create Unwish List” active form.	The unwish list is created.	Fail – no unwish list
76	Click on “delete unwish list” link on the “Wish Lists” page.	The page prompts the user to confirm the deletion of the unwish list.	Fail – no unwish list
77	Select yes on “delete unwish list” confirmation prompt.	The unwish list selected for deletion is deleted from the user’s lists.	Fail – no unwish list
78	Select no on “delete unwish list” confirmation prompt.	The unwish list deletion is canceled.	Fail – no unwish list
79	Open “Add Item” URL.	The page should open as intended.	Pass
80	Click on “Item Name” field on the active form on the “Add Item” page	User is able to type into field on active form with the appropriate characters.	Pass
81	Click on “Item URL” field on the active form on the “Add Item” page	User is able to type into field on active form with the appropriate characters.	Pass

82	Click on “Item Description” field on the active form on the “Add Item” page	User is able to type into field on active form with the appropriate characters.	Pass
83	Click on “Address of store where available” field on the active form on the “Add Item” page	User is able to type into field on active form with the appropriate characters.	Pass
84	Click on Connections link	List of User Connections is displayed. Each existing connection will have a button next to it that allows the user to delete that connection with the other user	Pass
85	Click on the Search link. Type in the name of a user to search for	A search field is displayed and text is entered on screen. Clicking the Search button will execute the query and return matches, if any	Pass
86	Click the Delete Connection button	The website will confirm if the user really wants to delete the connection. Clicking the confirm button will delete the connection	Fail – no delete
87	Click on the Blocked Connections filter to remove it	List of connections, including those connections which have been blocked, will be displayed	Fail – can’t remove block

88	Click on the Block button when responding to connection requests	The connection request will be blocked and no further connection requests will be allowed between these two users	Pass
89	Click the Invite Others link on the Connections page	A form email will be created that will be sent to email addresses supplied	Fail – no invite
90	Click the Pending Connections link	List of pending connections is displayed. The user can click Approve to add the other user as a connection	Pass

Exhibit G. Test Cases and Requirements Traceability Matrix Mapping

Requirement Number	Test Case Number	Status
1.1	1	Tested
1.2	2	Tested
1.3	3	Tested
1.4	4	Tested
1.5	5	Tested
2	6	Tested
2.1	7	Tested
2.2	8	Tested
2.3	9	Tested
2.4	10	Tested
2.5	11	Tested
2.6	12	Tested
3	13	Tested
3.1	14	Tested
3.1.1	15	Tested
3.1.2	16	Tested
3.1.3	17	Tested
3.1.4	18	Tested
3.1.5	19	Tested
3.1.6	20	Tested
4	21	Tested

4.1	22	Tested
4.1.1	23	Tested
4.1.2	24	Tested
5	25	Tested
5.1	26	Tested
5.2	27	Tested
5.3	28	Tested
5.4	29	Tested
5.5	30	Tested
6	31	Tested
6.1.1	32	Tested
6.1.2	33	Tested
6.1.3	34	Tested
6.1.4	35	Tested
6.1.5	36	Tested
6.1.6	37	Tested
6.1.7	38	Tested
6.1.8	39	Tested
7	40	Tested
7.1	41	Tested
7.2	42	Tested
7.3	43	Tested
7.4	44	Tested

7.5	45	Tested
7.6	46	Tested
8	47	Tested
9	48	Tested
9.3.1	49	Tested
9.3.2	50	Tested
9.3.3	51	Tested
9.3.4	52	Tested
9.3.5	53	Tested
9.3.5	54	Tested
9.3.5	55	Tested
9.4	56	Tested
9.4	57	Tested
9.4	58	Tested
10	59	Tested
10.1	60	Tested
10.1.1	61	Tested
10.1.2	62	Tested
10.1.2.1	63	Tested
10.1.2.2	64	Tested
10.1.2.2	65	Tested
10.1.2.2	66	Tested
10.2	67	Tested

10.2	68	Tested
10.2	69	Tested
10.3	70	Tested
10.3	71	Tested
10.3	72	Tested
10.4	73	Tested
10.4	74	Tested
10.4	75	Tested
10.4	76	Tested
10.6	77	Tested
10.6	78	Tested
11	79	Tested
11.1.1	80	Tested
11.1.2	81	Tested
11.1.3	82	Tested
11.1.4	83	Tested
12	84	Tested
12.2	85	Tested
12.3	86	Tested
12.4	87	Tested
12.3.1	88	Tested
12.5	89	Tested
12.6	90	Tested

Exhibit H. Change Management Requests

Change Order Number: 00000001

Change Request

Date: December 8, 2018

Project Name: Gift Registry Project

Date Request Submitted: December 8, 2018

Title of Change Request: teeng.net to teeng.org

Change Order Number: 00000001

Submitted By: Graham O'Hea

Change Category: ☐ **Scope** ☐ **Schedule** ☒ **Cost** ☐ **Technology** ☒ **Other**

Description of Change Request: Requesting to change domain name from teeng.net to teeng.org due to waiting period of 60days for confirmation.

Events that made this change necessary or desirable: The need to remain on schedule and within scope to complete this project in an efficient and timely manner.

Justification for the change/why it is needed/desired to continue/complete the project: Justification for this change comes in the form to remain on schedule without having to wait 60days for acceptance.

Impact of the proposed change on:

Scope: None

Schedule: None

Cost: One time cost of $14.99

Staffing: None

Risk: None

Other: None

Suggested implementation if the change request is approved: Immediately to provide efficient time for documentation revisions.

Required approvals:

Name/Title	**Date**	**Approve/ Reject**
Tai Butler	12/13/18	Approved
Edward Martinez	12/13/18	Approved
Eduardo Davila	12/13/18	Approved
Nupoor Basmatkar	12/13/18	Approved
Graham O'Hea	12/13/18	Approved

Change Order Number: 00000002

Change Request

Date: January 13, 2019

Project Name: Gift Registry Project

Date Request Submitted: January 13, 2019

Title of Change Request: Design ie: Transparency on Images/ Color Scheme

Change Order Number: 000000002

Submitted By: Graham O'Hea, Tai Butler

Change Category: ☐ **Scope** ☐ **Schedule** ☐ **Cost** ☐ **Technology** ☒ **Other**

Description of Change Request: Transparency of images to be compatible with website. Agreement of color scheme on pages presented in website.

Events that made this change necessary or desirable: The ability of deliver a pleasurable experience to users while using the Teeng.org website.

Justification for the change/why it is needed/desired to continue/complete the project: Justification for this change comes in the form of delivering a pleasurable experience to users. Along with maintaining (HCI) standards.

Impact of the proposed change on:

Scope: None

Schedule: None

Cost: None

Staffing: None

Risk: None

Other: None

Suggested implementation if the change request is approved: Immediately to provide efficient time for documentation revisions and usability testing.

Required approvals:

Name/Title	**Date**	**Approve/ Reject**
Tai Butler	01/16/2019	Approved
Edward Martinez	01/16/2019	Approved
Eduardo Davila	01/16/2019	Approved
Nupoor Basmatkar	01/16/2019	Approved
Graham O’Hea	01/16/2019	Approved

Exhibit I. Usability Tasks

Task 1 – Navigate to the website's Sign-up page and create an account.

Task 2 – Navigate to the website's Homepage and login in.

Task 3 – Navigate to your account page and change your password.

Task 4 – Navigate to your event's page and create an event.

Task 5 – Navigate to your Wish List's page and create a wish list.

Task 6 – Navigate to one of your wish lists and add an item.

Task 7 – Navigate to your connections page and add one of the team members.

Task 8 – Navigate to your wish list created and remove the item you added in task 6.

Task 9 – Navigate to your Wish Lists page and delete the wish list you created in task 5.

Task 10 – Navigate to your Wish Lists page and create an Un-Wish List

Task 11 – Navigate to your Un-wish list and add an item.

Task 12 – Navigate to your Wish Lists page and delete your Un-wish list. Log out.

Exhibit J. Usability Feedback Questionnaire

Teeng.org Usability Feedback

At Teeng.org, we value the opinion of every member. We strive to ensure that all of you receive the best experience that we may offer. To make this goal possible we would like to gather information in regards to your experience at Teeng.org.

Select the answer which best matches your opinion	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Teeng.org has a visually appealing design.	○	○	○	○	○
Teeng.org is easy to navigate through.	○	○	○	○	○
Teeng.org presents information in a way that is easy to understand.	○	○	○	○	○
Teeng.org exceeds my needs and expectations.	○	○	○	○	○
Teeng.org makes it easy to find what I am looking for.	○	○	○	○	○
Teeng.org loads pages quickly.	○	○	○	○	○
Teeng.org is a website I am likely to recommend to friends.	○	○	○	○	○
Teeng.org was easy to sign up for.	○	○	○	○	○
Teeng.org has provided me with a successful gift shopping experience.	○	○	○	○	○

Please add any additional comments you would like to convey to the team at TEENG.org

Exhibit K. Marketing Analysis and Plan

Our Objective

Teeng's Things is a lifetime family gift registry you can set up once and use forever to give and get the gifts that matter most. Because there is always something to celebrate - holidays, birthdays, weddings, graduation, new babies, new homes or just because, Teeng.org is the place to share gift ideas with family and friends online or on the go.

Business Summary

Our Company

Teeng's Gift Registry is a company headquartered through a virtual team with offices in a decentralized online location. The company's mission is to offer the flexibility and eliminate the anxiety that gift giving can bring by creating an online gift registry from home. With as much time as consumers need to curate a wish list our service allows consumers to do a little research on products and items before selecting them. However, the best part is that consumers can adjust, remove and add items easily, and as many times as they want to! An online registry also means consumers can set it up together without worrying about the hassle of going to a department store and booking an appointment.

Teeng's gift registry is a service provided to help customers purchase products for recipients who have pre-selected items they want or need. From weddings and baby showers to college graduations, housewarming parties and retirement send-offs, gift registries make the shopping experience faster and less stressful.

Our Marketing Leaders

[Marketing Leader 1] *Taina Butler is Teeng's Lead Marketing Director. She will develop and implement the Brand strategy. She will also develop the marketing strategy for new and existing products. Also overseeing implementation of the Marketing strategy - including campaigns, events, digital marketing, and PR.*

[Marketing Leader 2] *Graham O'Hea is Teeng's Marketing Coordinator. he will market products by developing and implementing marketing and advertising campaigns; tracking sales data; maintaining promotional materials inventory; planning meetings and trade shows; maintaining databases; preparing reports.*

[Marketing Leader 3] *Nupoor Basmatkar is Teeng's Marketing Analyst. As Market research analysts she will perform research and gather data to help a company market its products or services. She will also help determine a company's position in the marketplace by researching their competitors and analyzing their prices, sales, and marketing methods.*

SWOT Analysis

As Teeng's Gift Registry's marketing team, we want to help the brand lean into what it does well, improve what it doesn't, capitalize on what it can do, and defend against what could challenge it. With that in mind, here is our SWOT analysis for 2018.

Strengths	***Weaknesses***	***Opportunities***	***Threats***
• *Offering gift registry from various vendors* • *The flexibility to choose different items from different vendors* • *Share list through social media*	• *We would like to strengthen our social media advertisement and influence within the current market.* • *We would like to become more efficient at communicating with our customers and accommodating their needs and wants*	• *The gift registry market is estimated at $30B annually.* • *We're changing the game. With an easy integration and a fully branded end-to-end gift registry,* • *Increase sales, acquire new users, and significantly enhance customer life value.*	• *We think Jifiti.com could hinder our growth.* • *Jifiti.com offers a service that enables anyone to create a complete gift registry website.* • *Giftsers.com offers a similar service which could potentially pose a threat or competition.*

Marketing Initiatives

Teeng.org has the ambitious goal of increasing sales and potential revenue by 25%. To help the business do that, our marketing team will pursue the following initiatives in 2019:

Initiative 1

Description:

Over the next 12 months, we'll work on implementing email marketing. We will outline a plan very specific to that initiative and will carry it out. Our efforts will be focusing into email marketing initiative demands that we understand intimately.

Goal of initiative:

To increase our website's rank and create critical top-of-the-funnel marketing content that helps our sales team start more conversations with consumers also seeking to capture the attention of our consumers through email which is directly speaking to them during their time of celebrations.

Metrics to measure success:

10,000 organic page views per month / 10 content downloads per month.

Initiative 2

Description:

After our 12-month period we would like to implement a cause related initiative to give back to our community and to those in need especially during events that may be difficult for many to fund.

Goal of initiative:

Our goal is to help less fortunate families celebrate events and collaborate with agencies to serve people in need for celebrations that would not be celebrated otherwise.

Metrics to measure success:

Working within the community and across the state with different events and agencies to assist us with brand awareness.

Initiative 3

Description:

Send out surveys through social media with incentives to redeem on our site to gain a better understanding of the market and the needs of our consumers while rewarding them for their valuable feedback and loyalty.

Goal of initiative:

The goal of the initiative is to better serve the community in which we are marketing and seek success through adequate information provided by those who utilize our services.

Metrics to measure success:

Our success is measured through repeat business and social media sharing of our site and services provided.

Target Market

Industries

In 2018, we're targeting the following industries where we'll sell our product and reach out to customers:

[Online gift registry]

A gift-registry program can bring a whole new genre of customers. While weddings and baby registries have been going strong for a while, consumers are setting up registries for a wider variety of occasions: sweet 16, bat mitzvah, graduation and more. While many consumers worry that big-box stores have the registry market covered. The registry is especially important when customers are looking for that unique gift to give their loved ones on special occasions.

[Event Planning]

Event planning includes fundraising for life's most precious moments and celebrations between family members, close friends or co-workers. Celebrating life's achievements and milestones can and have become costly where as having the ability to collaborate together makes life that much easier. Through gift cards and adding funds to the recipient's page through a system which allows the celebration to be as grand as the person celebrated.

Buyer Personas

Within our target market, we've identified the following buyer personas to represent our ideal customers. The Internet hasn't just impacted the way millennials and members of generation X shop, research and connect. It's been responsible for a full revolution in the way Americans of all demographics make purchase decisions.

[Buyer Persona 1]

Millennials are 22-37 years old. They work in fields of technology for a living and spends their free time socializing and connecting with others and searching for entertainment using social media. Ultimately, Millennials are cautious consumer, global, charitable, and information hungry who want [personal or professional challenge(s) that your business will try to solve].

[Buyer Persona 2]

Generation X are 45-65 years old. They work in the business field for a living and spends their free time shopping, traveling, watching TV and spending time with family. Ultimately, Generation X wants to be included in all social activities. By providing the ease of gift giving without the hassle of deciding what's best to gift. Our service at Teengs.org will eliminate that anxiety and ensure recipients are pleased with anything you choose off their registry. Boomers *are 25% of the total population, $3 trillion of buying power but less than 5% of total ad dollars are targeted towards this group. According to a survey by Ad Age, many companies fear reaching out to boomers could age their brand. We would like to change the way Generation X is perceived especially within the social market by assisting them when choosing a gift during celebrations. Using our service will ensure their gift is the talk of any event.*

Competitive Analysis

Within our target market(s), we expect to compete with the following companies:

[Company 1] giftsters.com

Products we compete with: A free, private, web and mobile gift registry connecting family and close friends

Other ways we compete: this competitor offers customers the ability to access over 3000 vendors to compare prices.

[Company 2] Jifiti.com

Products we compete with: online gift registry set up

Other ways we compete: this competitor offers a service that enables anyone to create a complete gift registry website fraud and security free.

[Company 3] myregistry.com

Products we compete with: The best online universal wedding or bridal registry, baby registry and gift registry for any occasion! ... You can also create wish lists, cash gift funds and sync store registries.

Other ways we compete: this competitor offers a similar service to Teeng.org by providing a one stop shop online location for gift giving

[Company 4] target.com

Products we compete with: Create a Target Wedding Registry to plan your wedding, bridal shower or any event. Find a registry to shop for the perfect gift for people you know. ... You can shop their registry online and pick it up at a store near you or them for free.

Other ways we compete: this competitor offers the ability to pick up in store if needed. Also having multiple store front locations

Market Strategy

Product

Online registries eliminate the chaos and clutter of physically registering for all your gifts, and they often offer a much better selection than what you'd find in a brick-and-mortar store. So, if you want to add a set of dishes to your registry, for example, you can go to the store and make do with whatever is in stock, or you could browse the entire selection online. Plus, many outlets carry a much wider variety of products online than they do in-store, so there's a good chance that hand-painted earthenware dining set you fell in love with, while e-shopping won't even be available inside the store's physical location. Plus, it's easy to add, delete and modify your prospective gifts, so if you find a dinnerware collection later that you like more than those hand-painted plates, you can easily swap them out.

Hassle-free exchange and return policies can boost sales and the customer service experience. When a gift registry is hosted by a retailer, a certain level of control is maintained, and returning or exchanging gifts without a receipt becomes simplified. Overall, implementing a gift registry provides customers with a unique shopping experience allows gift recipients to choose items they truly want, rather than creating the need for returns and exchanges of items they dislike or won't use.

Price

The service at Teeng.org offers is a free online gift registry for anyone who wishes to celebrate someone through the art of gift giving. The revenue generated would be through third party vendors which whom the customers can also draw registry information from more than 3,000 retailers nationwide into the system to create a one-stop shop by adding items from the sites of companies such as Amazon, EBAY, and Bed Bath and Beyond just to name a few. Within the current market of registries, the service is at a competitive rate. The gift registry industry with estimated revenue of almost USD 77 billion by 2022.

Promotion

For our application website we will include the word(s) Registry or Gift Registry in the navigation menu and have more than one link to the gift registry landing page as customers take different navigation paths.

As we update site pages, add banners and labels that call out our gift registry or great gifting ideas we would add a gift registry mention or tagline to emails and other direct-to-consumer materials that we are planning to send or hand out to customers. Because emails are a great, easy, and cost-efficient way to connect with our customers, we would also create a new campaign inviting our entire customer base to use a registry for all of their gifting occasions.

By taking full advantage of the power of social media to quickly capture customer attention we would use Instagram, Facebook, Pinterest, Twitter, or write blogs intended to educate and engage, any or all of these platforms are perfect for sharing images, stories, and quick call-to-action messages that can invite customers to share registry news and success stories.

People

The Marketing Director will bring success to the operation by developing the brand strategy and by doing that this will allow the development of the marketing strategy to assist the team with campaigns and other public relation matters.

Our Marketing Coordinator will facilitate the logistics of the operation by overseeing the flow and efficiency of advertising campaigns; tracking sales data; maintaining promotional materials inventory; planning meetings and trade shows; maintaining databases and preparing reports.

Our Marketing Analyst will allow us to understand and analyze the current market insights at every point of the experience. She will list creation, list management, social sharing, e-commerce, group gifting, thank you notes and gift redemption.

Physical Evidence

Building a registry online with Teeng.org is incredibly easy. Customers can register by celebration type or room by room (all the kitchenware in one section, bathroom products in another) or they can organize their selections by product type -- cookery, electronics, furniture and so on. Customers can also better utilize their time by registering online. Look up exactly what they want by specific keywords and search terms, such as "silk sheets" and "red mixer," instead of wasting half a day wading through countless aisles of stuff.

Budget

Over the course of 2019, given the cash allotted to the Marketing team, we expect to invest in the following items to ensure we meet the objectives outlined in this marketing plan:

Marketing Expense	***Estimated Price***
Marketing Software Branding	*$65.00*
Event 1 [Hosting]	*$70.40*
Event 2 [Attending]	*free*
Total	***$135.40***

Marketing Channels

Over the course of 2019, we will launch our use of the following channels for educating our customers, generating leads, and developing brand awareness:

[Website/Publication 1] WWW.TEENG.org

Purpose of channel: DIRECT ACCESS TO WEBSITE

Metrics to measure success is the number of online registries being created and shared amongst groups

[Social Network 1] INSTAGRAM

Purpose of channel: Brand awareness

Metrics to measure success will be the number of page views per month. We'll also offer a free giveaway or raffle for those who participate. We chose Instagram to get access to a visual-focused platform with enthusiastic followers and high engagement. People are happy to follow brands on Instagram, and they're actively discovering and purchasing products on the platform. That's a big win.

- *80% of users follow at least one brand on Instagram, with 60% of these users saying they've discovered a product or service through the platform.*
- *At least 30% of Instagram users have purchased products they discovered on Instagram.*
- *65% of top-performing Instagram posts clearly feature products.*

[Social Network 2] FACEBOOK

Purpose of channel: social media connections

Metrics to measure success will be the number of connections viewing or creating online registries.

With more than 1.59 billion users, Facebook comprises of the largest blend of demographics of any social platform. It provides an extraordinary medium for Teeng.org to connect with our prospective customers all around the world. From an advertising perspective, it's the easiest to manage and allows for the best possible targeting. We use Facebook Ads to match our current buyers with over two million similar prospects who possess similar characteristics. We then push them to an opt-in page where we can capture their name and email.