Preliminary Design

SaintBook

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SaintBook
Requirements Specification

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Review

1.1 Product Overview

With the popularity of social networking sites ever increasing, it is important to take advantage of and expand on this trend. Social Networking sites allow people within a community to connect on a more personal level. Here at Siena College, Digital Evolutions would like to take this to a new height by implementing a project known as SaintBook. Dr. Eric Breimer, Professor at Siena College would like Digital Evolutions to create a networking site that is similar to Facebook, but solely for the Siena Community. The biggest difference between this site and Facebook will be that SaintBook will be group oriented rather than based purely on socializing. The site will allow Siena students, faculty and alumni to create personal user pages containing a home tab, profile tab, friends tab, group tab and message center tab. One of the main purposes of the groups will be to promote the 6 learning goals, or 6 R’s of Siena. Groups will be labeled in connection with one or more of these goals and any group the user is a member of will be displayed on the group tab, organized by the different R’s. Users who are not a member of the Siena community will also be able to access the site by using a guest account. Guests will have the ability to view user pages and group pages. This will give guests the opportunity to learn more about everything that goes on inside the Siena community.
1.2 User Case Narrative

**General User**
Students, Faculty and Staff

Students, faculty and staff will all be classified as the general user. This user will have three different options upon first accessing the site. The General User can either log in using their username and password if already registered; the General User can register using only their @siena.edu e-mail, and the user can also change their password if forgotten. Upon logging in, the General User will be directed to the Home tab of their personal user page. On the Home tab this user will be able to edit the top groups that appear on this tab and will also be able to view the user wall. The General User will have the ability to manage their Profile tab by adding questions and answers as well as pictures and captions. This user will also have the ability to choose what will be displayed publicly and what will be kept private for the user’s personal profile. The General User will be able to send friend requests and also accept or deny friend requests. The user will also be able to write on the wall of any other user they are friends with. On the Friends tab of the user page, the General User will also be able to select the top favorite friends to be displayed, and can then browse through all friends with an A-Z listing. The General User can also create a group and edit the group’s page. The creator of the group will automatically become the moderator of the group and must name a vice-moderator. The group creator will be able to control who can join the group. The moderator/vice-moderator of a group will have abilities including but not limited to managing the groups Home tab by choosing which members appear there, editing the Profile tab by adding or removing questions and answers and picture and captions, and accepting/rejecting/eliminating users from the group. The moderator/vice-moderator will also be able to send join requests for the group to become friends with another group, as well as disable the group if both the moderator and vice-moderator agree. The General User will have the ability to post on the groups wall once becoming a member. To easily find groups or other users on the site the General User will be able to use the browse feature which will be like an A-Z index. On the Group tab for the user, all groups that the user is a member of will be displayed and all groups will be sorted and organized based on the 6 R’s. The General User will also have a Message Center tab that will alert the user of any new notifications, including friend requests and group updates. Any User that is also a moderator or vice-moderator of a group will also receive requests made for that group in the Message Center tab of the user page.
Administrators

Administrators will be an important user for this project. This user will also be able to log in to the site using their registered user name and password, or the user can register themselves using the required @siena.edu domain. Administrators will also have their own personal user page to manage. Administrators will be able to edit the Home and Profile tab of the user page. On the Home tab, this user will be able to choose which top groups will be displayed and will also be able to view the user wall. Administrators will have the ability to add questions and answers and post pictures and captions to the Profile tab. Administrators will also be able to choose which tabs of the user page will be displayed as public and which tabs will be left private. Administrators can request to become friends with other users and can also accept or deny personal friend requests. Administrators will also have the ability to write on the wall of any other user they are friends with. On the Friends tab, Administrators will be able to choose which top favorite friends will be displayed and can then browse through all friends using the A-Z listing. This user can create and edit groups on the site and the creator of any group will automatically become moderator of that group and must immediately name a vice-moderator. As moderator or vice-moderator, Administrators will have control over the different tabs of the group. Moderators and vice-moderators will be able to select top members to be displayed on the Home tab for the group and can also post any pictures and captions and questions and answers to the Profile tab. Control over any new users wishing to join or remain in the group will also be handled by the moderator or vice-moderator, as well as sending or accepting requests to become friends with another group. If at any time the moderator chooses to disable the group, as long as the vice-moderator agrees, the group will be able to be disabled. These abilities held by the moderator and vice-moderator are subject to change as the project becomes more in depth. Administrators are also able to post on the wall for a group once becoming a member, just like students, faculty and staff are allowed to do. To easily find other users and groups, Administrators will also be able to use the browse feature which will be an A-Z index. Additional abilities of Administrators over the General User include the ability to label individual groups with attributes or certifications dealing with the 6 R's (learning goals). Another ability will be to change a user’s graduation year if a General User has been changed to an Alumni but hasn’t actually graduated yet. Administrators can also disable groups which do not seem pertinent to the Siena community, or reinstate groups that have been disabled, and will monitor wall postings, pictures, and activities of the groups to be sure everything is kept up to the standards set forth by Siena.
**Alumni**

Alumni will still have the option to be a user of this site. This user will have many of the same abilities as the Students, Faculty, and Staff. Once Alumni navigate to the site Alumni will be able to log in, still using their @siena.edu email address. Or if Alumni have not done so already, Alumni can register using this @siena.edu email address. This user will have a personal user page and be able to edit the Home and Profile tabs of the user page. Alumni will be able to post information, pictures and captions, and questions and answers to the Profile tab and select which top favorite groups will be displayed on the Home tab. Just like Administrators and the General User, Alumni will be able to decide which tabs of the personal user page will be open to the public and which tabs will be left private. Alumni can also send out friend requests to any registered user and can also accept or deny personal friend requests. On the Friends tab, Alumni will be able to choose which favorite friends will be shown, and can then browse through all friends using the A-Z listing. This user will be able to write on the wall of any user they are also friends with. The biggest difference in Alumni’s ability compared to the abilities of Students, Faculty, Staff and Administrators is that Alumni will not have the ability to create groups. This also means Alumni can never become moderator or vice-moderator of any of the groups. Alumni can still join groups and show support, post to the wall and have their personal involvement shown, but the total extent of their abilities within the groups will be determined at a later date. The Group tab for Alumni will also be the same as the General User and Administrators where all groups the Alumni is a member of will be shown, and all groups will be sorted by the 6 R’s. New notifications of friend requests or group updates will be shown in the Alumni’s Message Center tab. To easily find groups or other users Alumni will also be able to browse all groups and users with an A-Z index.

**Guests**

Guests will be a very unique type of user. The abilities of this user will be very limited. Guests will be able to self-register using an email other than @siena.edu. Once this user registers with this different email and has it verified, the user will automatically be labeled as a guest. Guests will be able to do a few minor things. Guests will not be able to have a personal user page, but Guests will be able to view any public user page created by current registered users, such as the Students, Faculty, Staff, Administrators and Alumni. Guests can also view the different public groups on the site but this user will not be able to join any groups. Guests cannot post or change any content in any of the groups or elsewhere on the site. The main purpose for Guests being able to log in to the site is to have the chance to see what current members of the Siena community do with the time spent at the college. To make this easier for guests, Guests will be able to browse for users and groups using the browse feature which is an A-Z index.
Super Administrator

The Super Administrator will not be an actual user, but a special user account. This account will be a single user name and password that multiple users may have access to. The sole purpose of the Super Administrator account will be to promote registered General Users to the status of Administrator or to demote Administrators down to the status of General User.

1.3 Functional Requirements Inventory

This site will run on all major browsers including, Internet Explorer 7 and 8, Mozilla Firefox, Safari and Google Chrome.

The following is a list of the functional requirements for each user. The requirements are grouped by user case and there are 5 different users for SaintBook.

The General User

- Will be able to register for the website using @siena.edu email
- Will be able to securely login to the system using a registered username and password
- Will be able to reset/change password
- Will be able to modify HOME tab
  - Will be able to select top favorite groups to display on this tab
  - Will be able to view personal wall with messages posted from friends
  - Will have the ability to disable posts from friends
- Will be able to modify PROFILE tab
  - Will be able to upload/remove individual photos with captions
  - Will be able to add/remove questions and answers or other personal information
- Friends
  - Will be able to add/remove friends
  - Will be able to send friend requests
  - Will be able to accept/decline friend requests
  - Will be able to view all tabs of friends’ user page
  - Will be able to select top favorite friends to display on their FRIENDS tab
  - Will be able to browse through their friends with an A-Z listing at the top of the FRIENDS tab
The General User Continued

- Groups
  - Will be able to send a request to join a group and state why they want to join that group
  - Will be able to view all tabs of groups they are members of
  - Will be able to view all groups they are a member of and see which, if any, of the 6 R’s that group falls under
  - Will be able to create groups
    - Will be able to become moderator of the group they create
    - Will be able to and are required to name a vice-moderator
    - Will be able to edit the HOME tab of the group
      - Will be able to feature select members of the group on this tab
      - Will be able to monitor the groups wall and posts made to the wall
    - Will be able to edit the PROFILE tab of the group they create
      - Will be able to upload/remove individual photos and captions
      - Will be able to add/remove questions and answers or other information
    - Will be able to view any new notifications for the group, such as join or friend requests, in their user page MESSAGE CENTER tab
    - Will be able to accept/decline member join requests
    - Will be able to remove users from the group
    - Will be able to accept/decline “friend” requests from other groups
    - Will be able to send requests to become a “friend” of another group
    - Will be able to disable the group if the vice-moderator agrees
    - Will be able to choose which of the groups tabs (profile, home, friends, groups) can be viewed by non-members of the group

- Posting
  - Will be able to post on the walls of friends only
  - Will be able to post on walls of groups they are members of

- Will be able to view any new notifications, such as friend requests or group requests, in their MESSAGE CENTER tab
- Will be able to upload a profile picture
- Will be able to choose which tabs (profile, home, friends, groups, report) can be viewed by non-friends
- Will be able to browse a list of all users and a list of all groups
**Administrator**

- Will be able to register for the website using @siena.edu email
- Will be able to securely login to the system using a registered username and password
- Will be able to reset/change password
- Will be able to modify HOME tab
  - Will be able to select top favorite groups to display on this tab
  - Will be able to view personal wall with messages posted from friends
  - Will have the ability to disable posts from friends
- Will be able to modify PROFILE tab
  - Will be able to upload/remove individual photos with captions
  - Will be able to add/remove questions and answers or other personal information

**Friends**

- Will be able to add/remove friends
- Will be able to send friend requests
- Will be able to accept/decline friend requests
- Will be able to view all tabs of friends’ user page
- Will be able to select top favorite friends to display on their FRIENDS tab
- Will be able to browse through their friends with an A-Z listing at the top of the FRIENDS tab

**Groups**

- Will be able to send a request to join a group and state why they want to join that group
- Will be able to view all tabs of groups they are members of
- Will be able to view all groups they are a member of and see which, if any, of the 6 R’s that group falls under
- Will be able to create groups
  - Will be able to become moderator of the group they create
  - Will be able to edit the HOME tab of the group
    - Will be able to feature select members of the group on this tab
    - Will be able to monitor the groups wall and posts made to the wall
  - Will be able to edit the PROFILE tab of the group they create
    - Will be able to upload/remove individual photos and captions
    - Will be able to add/remove questions and answers or other information
Administrator Continued

- Groups (continued)
  - Will be able to create groups (continued)
    - Will be able to view any new notifications for the group, such as join or friend requests, in their user page MESSAGE CENTER tab
    - Will be able to accept/decline member join requests
    - Will be able to remove users from the group
    - Will be able to accept/decline “friend” requests from other groups
    - Will be able to send requests to become a “friend” of another group
    - Will be able to disable the group if the vice-moderator agrees
    - Will be able to choose which of the groups tabs (profile, home, friends, groups) can be viewed by non-members of the group

- Posting
  - Will be able to post on the walls of friends only
  - Will be able to post on walls of groups they are members of
  - Will be able to view any new notifications, such as friend requests or group requests, in their MESSAGE CENTER tab
  - Will be able to upload a profile picture
  - Will be able to choose which tabs (profile, home, friends, groups, report) can be viewed by non-friends
  - Will be able to browse a list of all users and a list of all groups

- Will have a control panel
  - Will be able to disable any user
  - Will be able to disable any group
  - Will be able to reinstate any group that has been disabled
  - Will be able to disable any post
  - Will be able to disable profile questions/answers and/or other personal information from users and groups that is not appropriate for the site
  - Will be able to remove any photos and captions

- Will be able to change a user’s graduation year if user sends a request
- Will be able to label groups with one or more of the 6 R’s if the Administrator feels the group meets the requirement of the R(s)

**Bold** indicates abilities of the Administrator that are not abilities of the General User
Alumni

- Will be able to register for the website using @siena.edu email
- Will be able to securely login to the system using a registered username and password
- Will be able to reset/change password
- Will be able to modify HOME tab
  - Will be able to select top favorite groups to display on this tab
  - Will be able to view personal wall with messages posted from friends
  - Will have the ability to disable posts from friends
- Will be able to modify PROFILE tab
  - Will be able to upload/remove individual photos with captions
  - Will be able to add/remove questions and answers or other personal information
- Friends
  - Will be able to add/remove friends
  - Will be able to send friend requests
  - Will be able to accept/decline friend requests
  - Will be able to view all tabs of friends’ user page
  - Will be able to select top favorite friends to display on their FRIENDS tab
  - Will be able to browse through their friends with an A-Z listing at the top of the FRIENDS tab
- Groups
  - Will be able to send a request to join a group and state why they want to join that group
  - Will be able to view all tabs of groups they are members of
  - Will be able to view all groups they are a member of and see which, if any, of the 6 R’s that group falls under
- Posting
  - Will be able to post on the walls of friends only
  - Will be able to post on walls of groups they are members of
- Will be able to view any new notifications, such as friend requests or group requests, in their MESSAGE CENTER tab
- Will be able to upload a profile picture
- Will be able to choose which tabs (profile, home, friends, groups, report) can be viewed by non-friends
- Will be able to browse a list of all users and a list of all groups
**Guests**

- Will be able to register for the website using a non “@siena.edu” email
- Will be able to securely login to the system using a registered username and password
- Will be able to reset/change password
- Will be able to view only public information of groups and users
- Will be able to browse for other users and groups on the site using the browse feature

**Super Administrator**

- Will be able to securely login to the system using a registered username and password
- Will be able to make any already registered General User an Administrator
- Will be able to make any Administrator a General User

### 1.4 Non-Functional Requirements Inventory

The following is a list of non-functional requirements. These are the requirements that specify how the system should be.

- The system must be user friendly
- The system must run fast and efficiently
- The system must be easily maintainable
- The system must be easily modifiable
- The system must be stable
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2.1 Data Flow Diagrams

The purpose of Data Flow Diagrams is to show the “flow” and transformation of data through the system. These diagrams are used as a visualization tool to help the audience get a better idea of what exactly is going on in the system. The first image shown below will be a legend describing what each of the different items in the diagrams are and what they represent. A Context Diagram is shown next, which is the general overview of each of the different agents interacting with the system. The Level 0 Diagram shows some more details about which processes each of the agents will be interacting with. Arrows are drawn to show the flow of data between the agents and processes. Following the Level 0 Diagram are Level 1, Level 2, Level 3 and Level 4 Diagrams. These Diagrams further break down each of the processes that are involved with the system, each showing more detail the further down the level is.
2.1.1 Data Flow Diagram Legend

- **Entities/Sources/Sinks**: of the system which represents the users. Data will flow from and to these entities.

- **Processes**: of the system which represents the functions. Data will flow from and to these processes.

- **Stores**: of the system which represent what stores the data. Data will flow into, be saved and be pulled from these data stores.

- **The Flows**: of the system which represent the chunk or packets of information going from one component to another.

The above image displays a legend for the Data Flow Diagrams. This legend explains all objects used in the diagram and what they represent.
2.1.2 Context Diagram

This diagram depicts a broad representation of the entities of the system and their interaction with the system.
2.1.3 Level 0 Diagram

This diagram depicts a detailed interaction or data flow between the entities and the processes of the system.

A.) Login request  
B.) Use profile and group functions  
C.) Sign up request  
D.) Process login request  
E.) Process profile and group functions  
F.) Process sign up request  
G.) Insert label  
H.) Label response  
I.) Give access  
J.) Receive access  
K.) Give access response

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2.1.4  Level 1 Diagram: Authenticate

This diagram depicts a more detailed representation of the Authenticate process of the system.
2.1.5 Level 1 Diagram: Label Attributes

This diagram depict the Label Attribute process of the system.

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This diagram depicts a more detailed representation of the Label Attribute process of the system.
2.1.6  Level 1 Diagram: Register

This diagram depicts a more detailed representation of the Register process of the system.
2.1.7  Level 1 Diagram: Grant Admin Access

This diagram depicts a more detailed representation of the Grant Admin process of the system.
2.1.8 Level 1 Diagram: Handle User/Group Page

This diagram depicts a more detailed representation of the Handle User/Group Page process of the system.
2.1.7.1 Level 2 Diagram: View User Page

This diagram depicts more detailed representation of the Handle User/Group Page process of the system. View User Page is when a user sees another user's page.
This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Navigate to User Page is when a user navigates to another user's page.
2.1.7.1.1.1  Level 4 Diagram: View User Tabs

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. View User Tabs is when a user clicks on that user’s tabs.
2.1.7.2 Level 2 Diagram: View Group Page

This diagram depicts more detailed representation of the Handle User/Group Page process of the system. View Group Page is when a user sees group's page.
2.1.7.2.1 Level 3 Diagram: Navigate to Group Page

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Navigate to Group Page is when a user navigates to a group’s page.
2.1.7.2.1.1  Level 4 Diagram: View Group Tabs

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. View Group Tabs is when a user clicks on that group's tabs.
2.1.7.3 Level 2 Diagram: Manage User Page

This diagram depicts more detailed representation of the Handle User/Group Page process of the system. Manage User Page is when a user manages their page.
2.1.7.3.1  Level 3 Diagram: Edit Home Tab

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Home Tab is when a user manages their Home tab.
2.1.7.3.2  Level 3 Diagram: Edit Profile Tab

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Profile Tab is when a user manages their Profile tab.
2.1.7.3.2.1  Level 4 Diagram: Edit User Profile Content

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit User Profile Content is when a user edits their Profile tab content.
This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Friends Tab is when a user manages their Friends tab.
2.1.7.3.4  Level 3 Diagram: Edit Groups Tab

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Groups Tab is when a user manages their Groups tab.
This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. View Message Center Tab is when a user manages their Message Center Tab.
2.1.7.3.6  Level 3 Diagram: Delete User Content

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Delete User Page is when a user can deactivate their account.
2.1.7.4 Level 2 Diagram: Manage Group Page

This diagram depicts more detailed representation of the Handle User/Group Page process of the system. Manage Group Page is when a user manages a group that they are a member of.
2.1.7.4.1  Level 3 Diagram: Edit Group Home Tab

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Group Home Tab is when a user manages their Group’s Home Tab.
2.1.7.4.2  Level 3 Diagram: Edit Group Profile Tab

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Group Profile Tab is when a user manages their Group’s Profile Tab.
2.1.7.4.2.1 Level 4 Diagram: Edit Group Profile Content

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Group Profile Content is when a user edits their Group Profile Tab content.
This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Group Members Profile Tab is when a user manages their Group’s Members Tab.
This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Edit Group Friends Tab is when a user manages their Group's Friends Tab.
2.1.7.4.5  Level 3 Diagram: View Message Center Tab

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. View Message Center Tab is when a moderator manages their Group's Message Center Tab.
2.1.7.4.6  Level 3 Diagram: Create/Delete Group Page

This diagram depicts an even more detailed representation of the Handle User/Group Page process of the system. Create/Delete Group Page is when a moderator can create/delete a group, delete content and pass moderation status for the group they moderate.
2.1.7.5   Level 2 Diagram: Browse for Users/Groups

This diagram depicts more detailed representation of the Handle User/Group Page process of the system. Browse for Users/Groups is when a user browses SaintBook for Users and Groups.
2.2 Structure Diagrams

A Structure Diagram in software engineering is a diagram, which shows the breakdown of the configuration system to the lowest manageable levels. It is used to show the hierarchical arrangement of the modules in a structured program. Each rectangular box represents a module. The names of the modules are written inside the box, and arrows are drawn between modules to show relationships.

2.2.1 Structure Diagram

This diagram depicts a structural or hierarchical arrangement of the major functions of SaintBook.

This diagram depicts a structural or hierarchical arrangement of the major functions of SaintBook.
2.2.2 Handle User/Group Page: View User Page

This diagram depicts a very detailed structural or hierarchical arrangement of the Handle User/Group function of SaintBook through the View User Page process.
2.2.3 Handle User/Group Page: View Group Page

This diagram depicts a very detailed structural or hierarchical arrangement of the Handle User/Group function of SaintBook through the View Group Page process.
This diagram depicts a very detailed structural or hierarchical arrangement of the Handle User/Group function of SaintBook through the Manage User Page process.
This diagram depicts a very detailed structural or hierarchical arrangement of the Handle User/Group function of SaintBook through the Manage Group Page process.
2.2.6 Handle User/Group Page: Browse for Users/Groups

This diagram depicts a very detailed structural or hierarchical arrangement of the Handle User/Group function of SaintBook through the Browse for Users/Groups process.
2.2.7 Authenticate

This diagram depicts a structural or hierarchical arrangement of the Authenticate function of SaintBook.

2.2.8 Label Attributes

This diagram depicts a structural or hierarchical arrangement of the Label Attributes function of SaintBook.
2.2.9  Register

This diagram depicts a structural or hierarchical arrangement of the Register function of SaintBook.

2.2.10  Grant Admin Access

This diagram depicts a structural or hierarchical arrangement of the Grant Admin Access function of SaintBook.
2.3 Logical Data Dictionary

The Data Dictionary provides a list of all data entities and variables that deal with this system. Any data that is inputted, manipulated, stored in the database or declared as an internal variable is listed here. A description of each is provided in detail, as well as which section of screens each will appear or be used in. A key is provided below to better explain what each of the descriptions means. Next semester when implementation begins for the project, the data dictionary will be able to be used to determine what tables will be needed for the database. The data listed here is also subject to change and be added to as the project becomes more in depth.

**KEY:**

**Unique (U)** – This piece of data cannot be duplicated anywhere, each must be individually unique. For example each email for each user must be unique.

**Non Null (NN)** – This piece of data must have a value, it cannot be empty.

**Name** – The name of the piece of data.

**Type** – The value type for each piece of data. A number given in parentheses after the type is the maximum length the value can be.

- **Text** – standard text field
- **Date** – a date with MM/DD/YYYY format
- **Varchar** – the value can include characters and/or numbers as a value
- **Int** – an integer
- **Boolean** – true or false value

**Restrictions** – Any limitations or specifications for that piece of data.

**Description** – Describes a little about what the piece of data is.

**Section it appears in** – A list of all the sections of screens the piece of data appears on.

**Example** – Provides an example of what the piece of data should be.

Below is a list of all sections of screens for the system where each piece of data will appear. In the Data Dictionary the individual sections the data appears in are noted.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Login</td>
</tr>
<tr>
<td>2</td>
<td>Super Administrator</td>
</tr>
<tr>
<td>3</td>
<td>Administrator View</td>
</tr>
<tr>
<td>4</td>
<td>Forgot Password</td>
</tr>
<tr>
<td>5</td>
<td>Alumni</td>
</tr>
<tr>
<td>6</td>
<td>General User Browse View</td>
</tr>
<tr>
<td>7</td>
<td>Group Members View</td>
</tr>
<tr>
<td>8</td>
<td>Registration</td>
</tr>
<tr>
<td>9</td>
<td>Self View</td>
</tr>
<tr>
<td>10</td>
<td>Visiting User</td>
</tr>
<tr>
<td>11</td>
<td>Guests</td>
</tr>
<tr>
<td>12</td>
<td>Moderator View</td>
</tr>
<tr>
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<td>Type</td>
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<tr>
<td>-------------------------------</td>
<td>----------------</td>
</tr>
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</tr>
<tr>
<td>GroupJoinRequest</td>
<td>Text</td>
</tr>
<tr>
<td>GroupLabel</td>
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<tr>
<td>GroupName</td>
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<td>Text</td>
</tr>
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<tr>
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<tr>
<td>------------</td>
<td>---------</td>
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<td>Question</td>
<td>Text</td>
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<tr>
<td>TopGroups</td>
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</tr>
<tr>
<td>WallPostDate</td>
<td>Date</td>
</tr>
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<td>Boolean</td>
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<td>varchar(32)</td>
</tr>
<tr>
<td>WallPostSender</td>
<td>varchar(32)</td>
</tr>
</tbody>
</table>
2.4 Prototype Screens – External Design

The following are the prototype screen shots that have been developed for the project thus far. These prototypes were developed to give a better understanding of what direction this project is headed in. The designs are subject to change in the future but as for right now this is the basic idea for how SaintBook should be implemented.

**Login Page**

This screen, the Login Screen, is the screen the user first sees when they navigate to Saintbook. They will be able to log into their account by inputting their email and password into the respective text boxes and then clicking the Sign In Button. They can click on the hyperlink Create an Account if they do not have an account on Saintbook and wish to make one, or the hyperlink Forget your password if the user has forgotten the password to their account.
This is what the screen will look like as text is inputted.
Registration Page

This screen is the screen the user will be directed to if they click on the Create an Account hyperlink from the first page. They will be able to input their email address into the text fields. The user is recommended to use their @siena.edu email address, because if not the user will only be able to register for SaintBook as a guest and will have very limited functionality available to them. Clicking the **Confirm** button will direct the user to the **Registration Email sent** screen and send a confirmation email to the email the user typed in.
This is what the screen looks like as data is input into the fields.
Registration Email sent

This is the screen the user will be directed to when they have clicked the Confirm button on the Registration Page screen. The user will be able to click the Go to Login Page button that will direct them back to the initial Login Page.
Registration Email

This is what the email the user will receive will look like. They will be able to use the URL in the email to navigate to the Registration (cont.) page and complete their registration.
This is the screen the user will be directed to when they use the URL given to them in the confirmation email. The username will be the email they input in the first Registration page. They will be able to input their first name, last name, password, and their password again in order to confirm the first password typed in within the respective text boxes. The user will be able to click the Complete button when they have finished filling out the text boxes, and they will be redirected to the next listed page.
This is what the screen looks like as data is input into the fields.
Registration Complete

This is the screen the user is directed to after they have successfully completed the Registration (cont.) page and hit the Complete button. The user can click the Go to Login Page to navigate to the Login Page so that they may log into SaintBook.
This is the screen the user will be directed to when they click the **Forgot your Password?** hyperlink. The user will be able to input their email address into the text box. After the user has done so and clicks the **Submit** button, an email with directions on how to change your password will be sent to the email address in the text box and the user will be directed to the **Change Password Email Sent** screen.
This is the screen viewed as data is input into the field.
This is the screen the user will be directed to after they click the Submit button on the previous listed screen. They can click the **Go to Login Page** to navigate to the Login Page.
Email Received for a Forgotten Password

SaintBook- Forgot Password Request  Inbox [X]  Send [X]

To reset your password please click the link below and follow the instructions on that page.

http://orasesy.cs.siena.edu/~perm_saintbook.php?a34ac5f388b1bbbf5a2014f0026382e@email=c10bada@siena.edu&code=805663311

If you continue to have problems please contact our support team at team.digital.evolutions@gmail.com

All the best,
Siena College and the SaintBook Team!
This is the screen the user will be directed to from the URL in the email they receive in order to change their password. The user will be able to input the new password and confirm the password in the corresponding text boxes. They can click the Complete button to navigate to the Password Change Successful screen.
This is the screen viewed as data is input into the fields.
Password Change Successful

This is the screen the user will see after they have successfully changed their password and clicked the Complete button on Change Password screen. They can click the Go to Login Page to navigate to the Login Page.
User’s Home Tab

This screen, the User Home tab, is the screen the user will be directed to when they successfully log into their account. The User Home tab will allow the user to see the 6 groups that the user has selected as their favorites and the group’s most recent Wall post. The Wall of the user will be displayed on the right side of the page. They can click the Pick Favorites button to navigate to a page to change their favorite groups. The user can also follow a hyperlink to their Home tab, their Profile tab, Groups tab, Friends tab, Message Center tab, Privacy Settings, or Logout page, or use the Browse button that are all located at the top part of the page which has the green background.
User Select Favorite Groups

Clicking the Pick Favorites button on the User’s Home tab screen will navigate you to this screen where the user can choose their favorite groups. Clicking the **Update** button will save which groups were picked as favorites and navigate the user back to the User’s Home tab.
**User’s Profile Tab**

This screen is where the user can post content about themselves, including questions and answers as well as pictures and captions. They can delete any bubble. They can click the **Edit** button or **Upload a Photo** button to edit their profile or upload a photo respectively.
User’s Edit Profile Tab

This screen is where the user is navigated to if the Edit button is clicked on the User’s Profile tab. The user can input data into the text boxes. Clicking the **Add** button will add what is in the text boxes to the user’s profile and navigate the user to the **User’s Profile tab**.
This is what the page looks like as data is input into the fields.
User Upload Photo

This screen is where the user is navigated to if the Upload a Photo button is clicked on the User’s Profile tab. Clicking the **Browse**… button will open a dialog box in which the user can search their computer for a photo the user would like to upload. The user can input data into the text box to add a caption. Clicking the **Upload** button will upload the photo and the caption to the user’s profile and navigate the user to the User’s Profile tab.
This is what the screen looks like as text is input into the fields.
User’s Friends Tab

This screen shows the user’s favorite friends. They can click the Pick Favorites button to choose their favorite friends. The user can also view a listing of their friends from the A-Z listing at the top. The Browse for new friends button will allow the user to browse other users on the site that they are not friends with.
User’s Select Favorite Friends

This user is navigated to this screen when they click on the Pick Favorites button on the User Friends tab. They can check who they want their favorite friends to be. Clicking the Update button will update their favorite friends and navigate them back to the User Friends tab.
This is the page that will show all friends of the user whose name begin with the letter A. The user will be able to click on a different letter in the list and be brought to another listing of friends whose name begin with that letter. The button **List All** will list all friends of that user.
User’s Groups Tab

This screen is viewed by the user when they click to view their Group tab. It will display a list of all groups the user is a member of and the list is defaulted to be sorted by the R’s.
This screen is viewed by the user when they click the **Reason** link on the User’s Group tab. The list is populated by groups that the user is a member of and that fit the Reason criteria.
This screen is viewed by the user when they click the letter A in the A-Z listing. It will display all groups the user is a member of that begin with the letter A.
Viewing a non-friend User’s Home Tab

This is the screen that the user will see when they are logged in and viewing the home tab of another user they are not friends with. They will be able to see the other user’s favorite groups and Wall.
Viewing a non-friend User’s Profile Tab

The user will view this screen when they are logged in viewing the profile tab of another user they are not friends with. The User Profile tab will allow the user to see the profile of a member of Saintbook. It will have bubbles containing content that has been posted. The Wall of the other user will be displayed on the right side of the page.
Viewing a non-friend User’s Group Tab

This screen will be viewed by the user when they are logged in and viewing the Groups tab of another user they are not friends with. The page will allow the user to see what groups the other user is a member of. Again these groups will all be organized by the 6 R’s.
### Viewing a non-friend User’s Group Tab for Reason

The user is brought to this screen when they view another user’s groups for Reason.
The user is brought to this screen when they view another user’s group tab sorted by the letter A.
Viewing a non-friend User’s Friends Tab

This screen will be viewed by the user when they are logged and viewing the Friends tab of another user they are not friends with. The page will allow the user to view the friends of another user.
Viewing a Groups Home Tab (non-member)

This is the screen the user will view when they are looking at the Home tab for a Group they are not a member of. This tab will show the top members for the group as well as how the member is associated with the group. The wall for the group will be displayed to the right but they will not be able to post on the wall.
Viewing the Profile Tab for a Group (non-member)

The user will view this screen when they are logged in and viewing the profile tab of a group. The page will allow the user to see the profile of the group which will contain content about the group that has been posted by the group moderator. The groups’ wall is also displayed to the right. If the user wishes to join this group they can click the Request Membership button at the top.
Viewing the Groups Members Tab (non-member)

The user will view this screen when they are logged in and viewing the Members tab of a group. The page will allow the user to see 9 members of the group and their profile information. The user will be given the option to view more members of the group through the List All or the Alphabet options. The Wall of the group will be displayed on the right.
Viewing the Groups Friends Tab (non-member)

This screen will display the groups that the current group is friends with. The top friends will be displayed and the user will be able to view a complete list of friends using the A-Z listing at the top.
This is seen by the user when the user navigates to view the friends of a group, listed by individual letter.
Browse Groups Feature

This screen will allow the user to browse for other groups on the site. It will provide a full listing of all groups or can be sorted by individual letter, using the A-Z listing at the top.
Group’s Home tab viewed as Moderator

This is the screen the user will be taken to when they click the Home tab for the group they are currently viewing if they are the moderator of that group. The page will allow the user to see 6 top members of the group and how they are involved with the group. The Moderator can change the top members of the group being displayed by clicking the **Pick Favorites** button. The Wall of the group will be displayed on the right, and the user will have the option to write on the Wall and delete specific wall posts. The user can also follow a hyperlink to the Home tab for that group, the Profile tab for that group, Members tab for that group, and the Friends tab for that group that will be located just under the header with the green background and will have a white background.
Add Content to Group as Moderator

This is the screen the user will see when they are a moderator of a group and they clicked the Edit button. They will be able to input text into the text boxes corresponding to the descriptions of the boxes preceding them. Clicking the Add button will update the Profile tab of the group with information that was typed into the text boxes. Clicking the Upload a Photo button will bring the user to a screen that will allow the user to upload a photo. The Wall of the group will be displayed on the right, and the user will have the option to write on the Wall and delete specific wall posts.
This screen is what is seen as data is input into the fields.
This is the screen the user will be taken to when they click the Members tab for the group they are currently viewing if they are the moderator of that group. The Group Members page will allow the user to see 9 random members of the group and their profile information. The user will be given the option to view more friends of the group through the List All or the Alphabet options. The Wall of the group will be displayed on the right, and the user will have the option to write on the Wall and delete specific wall posts.
This is the screen the user will be taken to when they click the Friends tab for the group they are currently viewing if they are the moderator of that group. The screen will be populated by favorite groups that are friends of that group, and will give the option to go to more friends of the group through the List All or the Alphabet options. The Wall of the group will be displayed on the right, and the user will have the option to write on the Wall and delete specific wall posts. The user will be able to click the **Pick Favorites** button to navigate to a page where they will be able to pick the favorite group friends. The user will be able to click the **Browse for new friends** button to navigate to a page where they will be able to look for members of Saintbook.
This is the screen the user will be taken to when they click the Message Center tab for the group they are currently viewing and are a moderator of. The star next to Message Center means there are messages the user has not read yet. The left bubble would show members of Saintbook that wish to become members of that group. The right bubble would show other groups that wish to become friends with that group. The moderator of the group will have the ability to Accept or Deny these requests. The Wall of the group will be displayed on the right side of the page and the user will have the option to write on the Wall and delete specific wall posts.
The user will view this screen after they have clicked the Upload a Photo button in order to upload a photo to a group the user is moderating. Clicking the Browse… button in the main part of the screen will open a dialog box that will allow the user to search their computer for a photo that they wish to upload. The user will be able to add a caption to the photo by imputing text into the corresponding text box. Clicking the Upload button will upload the photo and caption if there is one to the group’s profile tab. The Wall of the group will be displayed on the right side of the page and the user will have the option to write on the Wall and delete specific wall posts.
This is what the screen looks like as data is input into the fields.
Super Administrator Page

This is the screen the user will see when they log into the Super Administrator account. The names of all the members of Saintbook will be listed categorized by the first letter of their last name, with the list defaulted to A when first logging in. The user will be able to change the status of a member of Saintbook from a General User to an Administrator or from an Administrator to a General User.
Message Center tab for General User

This is the screen the user will be taken to when they click the Message Center tab in the header. The star next to Message Center means there are messages the user has not read yet. The top left bubble would show members of Saintbook that wish to become friends with the user. The top right bubble would show the responses of groups that the user wished to become a member of. The bottom bubble would show groups the user is the moderator of. If the group has unread messages in its message center, there will be a star next to the group’s name. The Wall of the user will be displayed on the right side of the page and the user will have the option to write on the Wall and delete specific wall posts.
Create Group

This is the screen the user sees when they create a group. They can input text into the text boxes according to the descriptions. The Create button will create a group based on the information in the text boxes.
This is what the screen looks like as data is input into the fields.
This screen is what the user sees when they are an administrator and viewing the groups listed by the letter A. Groups that are grayed out have been disabled. As administrator, the group can be reinstated by simply clicking on it. An administrator can also disable a group by clicking the “x” next to it.
Administrator Browse Members

This screen is what the user sees when they are an administrator and viewing the users listed by the letter A. A user can be hidden or unhidden by an administrator. Users that are grayed out have been disabled. As administrator, the user can be reinstated by simply clicking on the name. An administrator can also disable a user by clicking the “x” next to it.
Group Profile tab viewed as Administrator

This screen is what the user sees when they are an administrator and viewing a group’s profile tab. The user can delete content of the group or any Wall posts.
Label a Group

This screen is what the user sees when they are an administrator of a group and wish to label the group with one of the 6 R’s. The administrator can click the Meets radio button if they feel the group meets the criteria.
View Profile tab of User as Guest

This is the screen the user will see if they are registered as a guest and viewing a profile tab of another user.
View Profile tab of Group as Guest

This is the screen the user will see if they are registered as a guest and viewing a group profile tab.
Alumni Viewing their Group Tab

This is the screen that an Alumni will view when under their Group’s tab. They will be able to see all groups they are a member of, sorted by the R’s. The difference for alumni and general users and administrators is that alumni will not have the option to create groups.
Viewing Friends tab of Group listed by letter (member)

This screen shows a General User viewing their Group’s friends listed in alphabetical order.
Viewing Friends tab of Group (member)

This screen shows a General User viewing their Group’s friends defaulted to Group’s favorite friends. Since the user is a member of this group they have the ability to post on the groups wall.
This screen shows General Users viewing a group’s home tab that they are a member of. The home page shows the top members of the group and how they are associated with that group. The user can post on this groups wall since they are a member of the group.
This screen shows General Users viewing a group’s members tab listed in alphabetical order. The user can post to the groups wall because they are a member.
Viewing Group Members tab as a member

This screen shows General Users viewing a group’s member tab as a member of that group. The tab is defaulted to list top members.
Viewing a Groups Profile tab as a member

This screen shows General Users viewing a group’s profile tab as a member of that group. The user can post on the groups wall. This tab displays content and pictures associated with the group.
General Users Browsing for Groups

This screen shows general users browsing for groups. The groups can be listed by letter or all together.
General Users Browsing for Users

This screen shows general users browsing for users. The users can be listed all together or by letter.
Moderator Browsing for Groups

This screen shows the moderator of a group browsing for groups. As moderator, the moderator can request to become friends with any group they find.
This screen will be viewed if the moderator of a group navigates to that group’s profile tab. It will have bubbles containing content related to the group. The Wall of the group will be displayed on the right, and the user will have the option to write on the Wall and delete specific wall posts. Clicking the **Edit** button will navigate the moderator to a page that allows the moderator to edit the content of the group. Clicking the **Upload Photo** button will navigate the moderator to a screen that will allow the moderator to upload a photo.
The user will view this screen after they have clicked the Upload a Photo button in order to upload a photo to a group the user is moderating. Clicking the Browse… button in the main part of the screen will open a dialog box that will allow the user to search their computer for a photo that they wish to upload. The user will be able to add a caption to the photo by imputing text into the corresponding text box. Clicking the Upload button will upload the photo and caption if there is one to the group’s profile tab. The Wall of the group will be displayed on the right side of the page and the user will have the option to write on the Wall and delete specific wall posts.
This screen shows a moderator of a group viewing the group’s friends tab sorted by the letter A.
This screen shows a moderator of a group editing the top favorite friends of the group for the groups friends tab.
Moderator Editing Group’s Favorite Members

This screen shows a moderator of a group editing the group’s favorite members. The moderator gets to choose which top members of the group will appear on the Home tab for the group.
This screen shows a moderator of a group viewing the group’s members sorted by letter.
This is the screen the user will be taken to when they click the Message Center tab for the group they are currently viewing and are a moderator of. The star next to Message Center means there are messages the user has not read yet. The left bubble would show members of Saintbook that wish to become members of that group. The right bubble would show other groups that wish to become friends with that group. The moderator of the group will have the ability to Accept or Deny these requests. The Wall of the group will be displayed on the right side of the page and the user will have the option to write on the Wall and delete specific wall posts.
Error Screens

This error is viewed if an invalid email was typed in when the submit button is clicked.
This error is viewed if invalid characters where typed into the email address field.
This error is viewed if invalid characters were typed into the New Password and/or Confirm Password field(s).
This error is viewed if the New Password field and the Confirm Password field do not match.
This error is viewed if an invalid email was entered.
This error is viewed if an invalid character(s) were entered and the Sign In button clicked.
This error is viewed if password was not correct for the email entered.
This error is viewed if the email addresses entered do not match.
This error is viewed if an invalid character(s) was entered.
This error is viewed if an invalid character(s) was entered.
This error is viewed if Password and Confirm Password fields do not match.
This error is viewed if you put in a user name that does not exist in the database, does not have a siena.edu email address, or is an alumni.
2.5 Test Plan

2.5.1 Acceptance Criteria and Testing Plan

A software project test plan is a document that describes the objectives, scope, approach, and focus of a software testing effort. The process of preparing a test plan is a useful way to think through the efforts needed to validate the acceptability of a software product. The completed test plan will serve to help anyone that is not involved in the testing to understand the ‘why’ and ‘how’ of product validation. The test plan documents the approach that will be used to authenticate and make certain that a product or system that is being tested meets the requirements and other conditions.

The acceptance criteria will be determined by the functional requirements inventory listed in section 1.3 of this document and the non-functional requirements inventory listed in section 1.4 of this document. By definition, functional requirements are what the system will be able to do and what is testable about the system while in contrast, the non-functional requirements define how the system will be; the elements of the system that are not testable. At the completion of this project, team Digital Evolutions will determine which of these requirements were met and which were not met. Please refer to the sections listed above to see the complete listing but keep in mind that these requirements are subject to change and can be added to as more information is gathered.

SaintBook will be tested on both Windows and Mac operating systems and with the four major browsers Internet Explorer 7 and 8, Mozilla Firefox, Safari and Google Chrome. Testing requirements will be decided upon and developed by Digital Evolutions. The first set of tests will be a set of individual unit tests that will break the system down into separate modules. Each individual unit of the module will be tested separately from every other unit and module. Once it has been determined that each individual unit works correctly, the module test will be performed, which will test all units of that module together. The integration test will be performed next. This test will bring modules together to be tested and make sure they still run properly. The system test will be a combination of all tests. This will connect all of the units and modules and bring the entire system back together to be tested further as one whole entity. For this document, Digital Evolutions has developed a full list of each separate unit that will be tested. A detailed test has been created for three of these units and these tests are presented below. In the next document, Detailed Design, tests will be written out for each unit and then the results of all of these tests will be presented in the Acceptance Test document where it will be determined whether or not all requirements were met.
2.5.2 Unit Test Directory

The following is a list of all separate units that will be tested. Once each of these unit tests passes, a full system test will be performed to ensure correctness and efficiency.

List of Units

1. Register
2. Login
3. Forgot/Change Password
4. User HOME tab
5. User PROFILE tab
6. User FRIENDS tab
7. User GROUP tab
8. Create Group
9. User MESSAGE CENTER tab
10. User Page
11. Group HOME tab
12. Group PROFILE tab
13. Group MEMBERS tab
14. Group FRIENDS tab
15. Group MESSAGE CENTER tab
16. Group Page
17. Browse Feature
18. Super Admin Powers
19. Administrator Powers

2.5.3 Unit Test Cases

A test case includes the test number and description of the test. The action to be performed, or the input entered by the user, the state before the test, and the expected result are described for the three units below. There are cases described for the correct actions of users as well as incorrect actions. After the tests have actually been performed, the observed results will be recorded.
## 2.5.3.1 Register

### SaintBook Registration

Allows users to create an account and gain access to the system.

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Pass/Fail Status</th>
<th>Test Number</th>
<th>Description</th>
<th>Action to perform test (Input)</th>
<th>State Before Test</th>
<th>Expected result</th>
<th>Observed result</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>1.001</td>
<td>Enter E-mail Address text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>Confirm button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.002</td>
<td>Confirm E-mail Address text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>Confirm button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.003</td>
<td>Invalid character(s) inputted into any text box of the Registration page* .. .. / ?</td>
<td>Blank text box</td>
<td>Invalid characters message displayed and Confirm button is disabled</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.004</td>
<td>E-mail address mismatch</td>
<td>User inputs two E-mail addresses that don't match into the E-mail address text boxes</td>
<td>Blank text boxes</td>
<td>“E-mail addresses don't match” message displayed and Confirm button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.005</td>
<td>E-mail address match</td>
<td>User inputs the same E-mail address into both E-mail address text boxes</td>
<td>Blank text boxes</td>
<td>Confirm button is enabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.006</td>
<td>Confirmation page for Registration E-mail being sent</td>
<td>User clicks the enabled Confirm button</td>
<td>Blank text boxes</td>
<td>Screen letting the user know a Registration E-mail was sent and the E-mail actually is sent to the user's E-mail address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.007</td>
<td>Registration E-mail has proper link</td>
<td>Click link in E-mail</td>
<td>E-mail with link</td>
<td>Link directs user to Registration (Con't) page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.008</td>
<td>First Name text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>Complete button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.009</td>
<td>Last Name text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>Complete button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.010</td>
<td>Enter Password text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>Complete button id disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.011</td>
<td>Confirm Password text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>Complete button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>-------</td>
<td>-----------------------------------</td>
<td>------</td>
<td>----------------</td>
<td>----------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.012</td>
<td>Invalid character(s) inputted into any text box of User info page</td>
<td>&quot;... &quot; / ?</td>
<td>Blank text box</td>
<td>Invalid character(s) message displayed and Complete button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.013</td>
<td>Enter Password text box encryption</td>
<td>User inputs a password into the Enter Password text box</td>
<td>Blank text box</td>
<td>The Enter Password text box displays the password the user inputted as dots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.014</td>
<td>Confirm Password text box encryption</td>
<td>User inputs a password into the Confirm Password text box</td>
<td>Blank text box</td>
<td>The Confirm Password text box displays the password the user inputted as dots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.015</td>
<td>Password mismatch</td>
<td>User inputs two passwords that don't match into the password text boxes</td>
<td>Blank text box</td>
<td>&quot;Passwords don't match&quot; message displayed and Complete button is disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.016</td>
<td>Enabled Complete button</td>
<td>User inputs proper values for all fields</td>
<td>Complete button is disabled</td>
<td>Complete button is enabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.017</td>
<td>Confirm Registration</td>
<td>User clicks the enabled Complete button</td>
<td>Properly filled-in User Info page</td>
<td>Add user information to the database and display the Complete Registration page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.018</td>
<td>Re-direct to the Login page</td>
<td>User clicks &quot;Go to Login page&quot; button</td>
<td>Complete Registration page</td>
<td>Bring the user to the Login page</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# 2.5.3.2 Login

**SaintBook Login**
Allows the user to properly login to the system

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Action to perform test (input)</th>
<th>State Before Test</th>
<th>Expected result</th>
<th>Observed result</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 1.001</td>
<td>Username text box is blank</td>
<td>None</td>
<td>Sign In button is disabled</td>
<td>Blank text box</td>
</tr>
<tr>
<td>F 1.002</td>
<td>Password text box is blank</td>
<td>None</td>
<td>Sign In button is disabled</td>
<td>Blank text box</td>
</tr>
<tr>
<td>F 1.003</td>
<td>Invalid character(s) inputted into any text box</td>
<td>* ... &quot; .. ' / ?</td>
<td>Blank text box</td>
<td>Invalid character(s) message displayed and Sign In button is disabled</td>
</tr>
<tr>
<td>F 1.004</td>
<td>Enabled Sign In button</td>
<td>User inputs both a username and a password</td>
<td>Sign In button is enabled</td>
<td>Blank text box</td>
</tr>
<tr>
<td>F 1.005</td>
<td>Wrong username</td>
<td>User inputs a username that is not in the database and clicks the enabled Sign In button</td>
<td>Wrong username message displayed to user</td>
<td>Blank text box</td>
</tr>
<tr>
<td>F 1.006</td>
<td>Wrong password</td>
<td>User inputs a password that does not match the password in the database for the username they inputted and clicks the enabled Sign In button</td>
<td>Wrong password message displayed to user</td>
<td>Blank text box</td>
</tr>
<tr>
<td>F 1.007</td>
<td>General User, Admin, Alumni Login</td>
<td>User inputs a username that belongs to either a General User, Admin, or Alumni, inputs the correct password, and clicks the enabled Sign In button</td>
<td>General User, Admin, or Alumni brought to their User Home tab</td>
<td>Blank text boxes</td>
</tr>
<tr>
<td>F</td>
<td>1.008</td>
<td><strong>Guest Login</strong></td>
<td><strong>User inputs a username that belongs to a Guest, inputs the correct password, and clicks the enabled Sign In button</strong></td>
<td>Blank text boxes</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>F</td>
<td>1.009</td>
<td><strong>Super Admin Login</strong></td>
<td><strong>User inputs a username that belongs to the Super Admin, inputs the correct password, and clicks the enabled Sign In button</strong></td>
<td>Blank text boxes</td>
</tr>
</tbody>
</table>
## 2.5.3.3 Forgot Password

**SaintBook**

**Forgot Password**

Allows a user to create a new password if they forgot their old one.

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Description</th>
<th>Action to perform test (input)</th>
<th>State Before Test</th>
<th>Expected result</th>
<th>Observed result</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 1.001</td>
<td>Enter E-mail Address text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>&quot;E-mail address required&quot; message displayed and Submit button is disabled</td>
<td></td>
</tr>
<tr>
<td>F 1.002</td>
<td>Invalid character(s) inputted into any text box of the Forgot Password page</td>
<td>* ... *.. * / ?</td>
<td>Blank text box</td>
<td>Invalid character(s) message displayed and Submit button is disabled</td>
<td></td>
</tr>
<tr>
<td>F 1.003</td>
<td>Enabled Submit button</td>
<td>User inputs an E-mail address into the Enter E-mail text box</td>
<td>Disabled Submit button</td>
<td>Submit button is enabled</td>
<td></td>
</tr>
<tr>
<td>F 1.004</td>
<td>Wrong E-mail address</td>
<td>User inputs an E-mail address that is not in the database and clicks the enabled Submit button</td>
<td>Blank text box</td>
<td>Wrong E-mail address message displayed to user</td>
<td></td>
</tr>
<tr>
<td>F 1.005</td>
<td>Confirmation page for confirmation E-mail being sent</td>
<td>User inputs an E-mail address that is in the database and clicks the enabled Submit button</td>
<td>Blank text box</td>
<td>User is brought to a confirmation page saying that the E-mail was sent and the E-mail was actually sent to the user's E-mail address</td>
<td></td>
</tr>
<tr>
<td>F 1.006</td>
<td>Confirmation E-mail has proper link</td>
<td>Click link in E-mail</td>
<td>E-mail with link</td>
<td>Link brings user to the Reset Password page</td>
<td></td>
</tr>
<tr>
<td>F 1.007</td>
<td>New Password text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>&quot;New password required&quot; message displayed and Complete button is disabled</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.008</td>
<td>Confirm New Password text box is blank</td>
<td>None</td>
<td>Blank text box</td>
<td>“Confirm new password” message displayed and Complete button is disabled</td>
</tr>
<tr>
<td>F</td>
<td>1.009</td>
<td>Invalid character(s) inputted into any text box of the Reset Password page</td>
<td>“…” .. ’/ ?</td>
<td>Blank text box</td>
<td>Invalid character(s) message displayed and Complete button is disabled</td>
</tr>
<tr>
<td>F</td>
<td>1.010</td>
<td>New Password text box encryption</td>
<td>User inputs a password into the New Password text box</td>
<td>Blank text box</td>
<td>The New Password text box displays the password the user inputted as dots</td>
</tr>
<tr>
<td>F</td>
<td>1.011</td>
<td>Confirm New Password text box encryption</td>
<td>User inputs a password into the Confirm New Password text box</td>
<td>Blank text box</td>
<td>The Confirm New Password text box displays the password the user inputted as dots</td>
</tr>
<tr>
<td>F</td>
<td>1.012</td>
<td>Password mismatch</td>
<td>User inputs two passwords that don’t match into the password text boxes</td>
<td>Blank text boxes</td>
<td>“Passwords don’t match” message displayed and Complete button is disabled</td>
</tr>
<tr>
<td>F</td>
<td>1.013</td>
<td>Password match</td>
<td>User inputs the same password into the password text boxes</td>
<td>Blank text boxes</td>
<td>Complete button is enabled</td>
</tr>
<tr>
<td>F</td>
<td>1.014</td>
<td>Confirm Password Reset</td>
<td>User clicks the enabled Complete button</td>
<td>Both password text boxes contain the same password</td>
<td>Update the user’s password in the database and display the Complete Forgot Password page</td>
</tr>
<tr>
<td>F</td>
<td>1.015</td>
<td>Re-direct to Login page</td>
<td>User clicks the “Go to Login page” button</td>
<td>Complete Forgot Password page</td>
<td>Bring the user to the Login page</td>
</tr>
</tbody>
</table>
2.6 Development Environment and Production Environment

For our development environment, Digital Evolutions has two workstation computers provided by Siena College located on the 3rd floor of Roger Bacon in the Software Engineering lab. The reason for detailing the development and production environments is to try and complete a high level of compatibility across as many platforms as possible. If an error in compatibility arises this listing will act as a reference to help narrow down potential version conflicts.

Development Workstations:

- Dell Optiplex760 Desktop
  
  **Hardware**
  - Intel Core2 Duo processor clocked at 2.93GHz
  - 4.00GB of memory
  - 146GB of hard drive space

  **Available Software**
  - Mozilla Firefox 3.5
  - Google Chrome 3
  - Internet Explorer 8
  - Notepad++
  - Adobe Web Design Suite CS4
  - UltraVNC server and client

- iMAC5 desktop
  
  **Hardware**
  - MacOSX version 10.4.11 on an Intel Core2 Duo clocked at 2.00GHz
  - 1.00GB of memory
  - 148GB hard drive space

  **Available Software**
  - Safari version 3.2.1

Development Web Server/Database:

- Siena’s Oraserv server
  
  - CentOS Linux release 5.2
  - x86_64 bit processor
  - Apache Web Server version 2.2.9
  - PHP version 5.2.6
  - MySQL version 5.0.45
  - Oracle version 11.1
Production Web Server/Database:

- Host Monster’s Hosting Server
  - Linux
  - X86_64 bit processor
  - Apache Web Server version 2.2.13
  - PHP version 5.2.9

MySQL version 5.0.81
Appendices

Appendix A: Glossary of Terms

6 R’s - Learning goals that Siena abides by as a Franciscan College. They are:

* Reason (Informed Reasoning)
* Rhetoric (Effective Communication)
* Reflection (Meaningful Reflection)
* Regard (Regard for Human Solidarity and Diversity)
* Reverence (Reverence for Creation)
* Responsibility (Moral Responsibility)

Apache - A web server software.

Database - A collection of data arranged for ease and speed of search and retrieval.

Facebook - A global social networking website that is operated and privately owned by Facebook Inc.

Functional Requirements Inventory - Define what the system will be able to do and what is testable about the system.

Gantt Chart - A Gantt chart is a type of bar chart that illustrates a project schedule. Gantt charts illustrate the start and finish dates of the terminal elements and summarize elements of a project.

Group - Groups bring together a collection of people associated with some aspect of the community, and will be the main focus of the site.

Group FRIENDS tab - Will display other groups that this group is friends with.

Group HOME tab - Will display featured members of the group as well as the group’s wall.

Group MEMEBRS tab - Will display featured members of the group as well as provide an A-Z listing of all members.

Group MESSAGE CENTER tab - Will display new notifications for the group, such as member join requests and group friend requests. This will only be visible to the moderator or vice-moderator of the group.

Group Page - Refers to all information and tabs associated with the group.
**Group PROFILE tab** - Will display any questions/answers and pictures/captions about the group.

**Internet** - A global system of interconnected computer networks that use the standardized Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private and public, academic, business, and government networks of local to global scope.

**Label** - The process in which administrator’s associate groups with the 6 R’s.

**Moderator** - A user becomes a moderator of any group they create and will then have control over that group, allowing them to add/remove members and friends, etc. They are also required to name a vice-moderator.

**MySQL** - A Multithreaded, multi-user Relational Database Management System.

**Non-Functional Requirements Inventory** - Define how the system will be; the elements of the system that are not testable.

**Oracle** - A relational database management system produced by Oracle Inc.

**PHP - PHP Hypertext Preprocessor** - An open source (free) programming language that is used for dynamic pages and is a high-level scripting language.

**URL** - Uniform Resource Locator - Global address of documents and other resources on the World Wide Web.

**User FRIENDS tab** - Will display the top favorite friends of the user as well as an A-Z listing of all other friends.

**User GROUP tab** - Will display a listing of groups the user is a member of and the groups will be organized by the 6 R’s. An A-Z listing of all groups will also be available.

**User HOME tab** - Will display the favorite groups of the user as well as the user’s wall.

**User MESSAGE CENTER tab** - Will display any new notifications the user has, including friend requests and groups updates. Any notifications for groups the user is a moderator of will also be displayed.

**User Page** - Refers to all information and tabs associated with the user.

**User PROFILE tab** - Will display any questions/answers and pictures/captions posted by the user.
**Vice-Moderator** - Chosen by the moderator of a group when the moderator creates a group. Vice-moderator will have the same privileges of a moderator, which include adding/removing members and friends, etc.
Appendix B: Project Timeline: Gantt Chart

Current Timeline
First the Current Timeline for this project will be displayed

Future Timeline
Second will be the Future Timeline for the completion of the project
The Gantt Chart displays our timeline for the semester, showing team meetings, client meetings, and milestones.
The Gantt chart displays our timeline for the semester, showing team meetings, client meetings, and milestones.

Future

Timeline - Gantt Chart