
Software Requirements Specification

For

Associates of St. John Bosco Web Application Project

Version 1.0

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Table of Contents

Table of Contents	2
1. Introduction	4
1.1 Purpose	4
1.2 Product scope	4
1.3 References	4
1.4 Document overview	5
2. Overall description	5
2.1 Client characteristics	5
2.2 Application characteristics	5
2.3 User characteristics	6
2.4 General constraints	6
2.4.1 Usability	6
3. Requirements	6
3.1 General requirements	6
3.1.1 User Requirements	6
3.1.1.1 Administrator	6
3.1.1.2 Sub-user Administrator	7
3.1.1.3 Viewers	7
3.1.1.4 Logged-in Users	7
3.1.1.4.1 Bookmarks	7
3.1.1.4.2 Checklist	7
3.1.2 Page requirements	7
3.1.2.1 Home / About	7
3.1.2.2 Resources	8
3.1.2.3 Catholic Campus Ministry	8
3.1.2.4 Contact ASJB	8
3.1.3 Catholic Campus Ministry Search Tool	8
3.1.4 General Search Bar	8
3.1.5 Login Form	9
3.1.6 Registration Form	9
3.1.7 Catholic Campus Ministry Submission / Edit Form	9
3.1.7.1 Admin CCM Management	9
3.1.7.1.1 Approve/Disapprove	9

3.1.7.1.2 Add	9
3.1.7.1.3 Delete	9
3.1.7.1.4 Update	10
3.2 User interface requirements	10
3.2.1 Mobile-responsive	10
3.2.2 Cross-browser compatible	10
3.2.3 Mobile user interface requirements	10
3.3 Error handling requirements	10
3.3.1 Incorrect Username/Password	10
3.3.2 No User in Database	11
3.3.3 Username Unavailable	11
3.3.4 Error in Form Submission	11
3.4 Security requirements	11
3.4.1 Password security / verification	11
3.4.2 Search Tool security	11
3.5 Input requirements	11
3.5.1 Registration	11
3.5.2 Login	11
3.5.3 CCM Search Tool	12
3.5.4 General Search Bar	12
4. Non-Requirements	12
4.1 Training	12
4.2 Database backups	12
4.3 SSL Certificate	12
5. Assumptions	12
6. Appendices	13
6.1 Appendix A: Other Design Matters	13
6.2 Content Management Feature	13
6.3 Capacity	13
6.4 Processing	13
6.5 Output	13
6.6 Appendix B: Glossary	13
INDEX	14
CONTRIBUTIONS	16
Diego Bustamante	16
Hannah Morgan	16
Ashley Pontiveros	16

1. Introduction

1.1. Purpose

This software documentation will allow the user to effectively use the Associates of St. John Bosco. Upon reading the documentation, users will have a firm understanding of the web application usability. It will outline the required capabilities for each category of user: Admin, Logged-in User, and Viewer. This documentation will also inform the user of what content must be posted on static pages and the general required structure of both the static and dynamic web pages.

1.2. Product scope

The software specified in this document is a web application (web app) that will allow our client, the Associates of St. John Bosco, to connect current and prospective college students with Catholic Campus Ministries (CCMs) across the country. The goal of this web app is to provide students with an online resource where they can search for and document information about Catholic services offered on college campuses of interest. Students and ministry leaders will also be able to submit information about their local Catholic Campus Ministry (CCM) to be published on the web app for the benefit of other users. This service will help students to remain faithful by allowing them to search for services offered by each CCM. The web app will also utilize a Checklist function and a Bookmark function from within the app. This Checklist will allow users to keep track of the steps they have taken in their college search, and what they need to focus on next. The Bookmark function will allow quick access to previously viewed CCM information.

1.3. References

The primary reference used to create the requirements document was the original assignment guide provided by Dr. Karen Anewalt. The document presented a template for the software requirements specification. Other references needed to validate background information include:

1. Associates of St. John Bosco website: asjb.org
2. Catholic Campus Ministry of UMW website: www.umwcatholic.org

1.4. Document overview

The remainder of this document is organized by informational categories. Section 2 contains background information about the system, including a system overview, definition of client, definition of user, and general constraints. Section 3 contains the detailed requirements, including functional, non-functional, and interface requirements, grouped by requirements type. Section 4 contains non-requirements, which are specifications to be explicitly discluded from the product. Section 5 contains assumptions made about the system during the requirements collection process. Section 6 consists of the appendices, including a glossary and list of team member contributions to the requirements document.

2. Overall description

2.1. Client characteristics

Our client is Father Christopher Vaccaro, the chaplain and director of the Catholic Campus Ministry of UMW and founder of the Associates of St. John Bosco (ASJB), a non-profit organization created to assist students in remaining connected with the Catholic faith. As such, Father Vaccaro is interested in a product that generally promotes the mission of ASJB and can be easily administered by chaplains of other CCMs.

2.2. Application characteristics

The Associates of St. John Bosco web app (ASJB Web App) is an application that will support the mission of the Associates of St. John Bosco to help students remain faithful and connected to the Catholic church during their time in college. The web app will be available as a fully functional, mobile responsive website which will act as a source of information for current and prospective students.

The web app will contain general information pages for the Associates of St. John Bosco. It will also allow users to submit information pertaining to the CCM available on their campus. The submitted information will be sent to system admins, who can choose to publish the information for all system users to access, creating a geographic network of Catholic resources. The app will allow students to search for CCMs by city, state, zip code, or school name. Users will also be able to login in order to save bookmarks to information for a specific CCM and a checklist to keep track of their progress.

2.3. User characteristics

Users of the ASJB Web App will consist of administrators, current and prospective students, and any other visitors interested in information about CCMs available on college campuses. The main Administrator will be Father Vaccaro. Sub-user Administrators will be assigned by Father Vaccaro with the purpose of assisting in the maintenance and organization of the website information. Students and other visitors will use the website to find information about services offered by CCMs at their colleges of interest.

2.4. General constraints

2.4.1. Usability

Software must be manageable for admins and general users without software experience. The software must be intuitive and should follow the common practices of other interactive web applications, such that users with minimal web experience can use the ASJB Web App.

3. Requirements

3.1. General requirements

Includes the requirements necessary to general functionality of the ASJB Web App and the setup of its users.

3.1.1. User Requirements

Outline of user roles and required capabilities. Users will include Admins, Sub-user Admins, Viewers, and Logged-in Users.

3.1.1.1. Administrator

The Administrator account of the web app will be able to add and remove other Sub-user Admins and Registered Users, approve or deny submissions to the Catholic Campus Ministries Network (CCM Network), and update, add, or remove submissions. Admins also have the capabilities of Viewers and Logged-in Users.

3.1.1.2. Sub-user Administrator

Sub-user Admins will have the authority to approve or deny submissions to the CCM Network, and edit, update, add, or remove submissions. Sub-user Admins also have the capabilities of Viewers and Logged-in Users.

3.1.1.3. Viewers

Viewers will be able to view all public pages and use basic app functions, including the Catholic Campus Ministry Search Tool (CCM Search Tool) to find information about CCMs.

3.1.1.4. Logged-in Users

Logged in Users will be able to view all public pages and use the CCM Search Tool to find information about different CCMs. In addition, Logged-in Users will be able to keep track of their progress by using Checklists and Bookmarks.

3.1.1.4.1. Bookmarks

The Bookmark feature will allow Logged-in Users to keep track of pages of interest to them on the website. The bookmarks will be viewable to Logged-in Users. Logged-in Users will be able to add and remove bookmarks for each page they visit, which will be available on their account until deleted by the user.

3.1.1.4.2. Checklist

The Checklist will be a feature on each CCM page that is accessible only to Logged-in Users. This page will keep track of personal questions that a user has for the specific CCM.

3.1.2. Page requirements

All users will have access to these pages.

3.1.2.1. Home / About

The About page will inform the user about the ASJB ministry including information about history, belief, and mission.

3.1.2.2. Resources

The Resources will contain links to other resources and information pertaining to CCMs and services available in the network.

3.1.2.3. Catholic Campus Ministry

The Catholic Campus Ministry main page will offer a search function that will allow visitors to search for CMs by city and state, zipcode, or school name. Once searched, the Catholic Campus Ministry page will display a list of the CCMs in that location. The user will be able to select a CCM from the list and view its specific CCM page.

3.1.2.4. Contact ASJB

The Contact page will be accessible to any user on the page. Login is not required to contact the admins of the website. The contact form will consist of the following entry fields:

- First Name * Required Field*
- Last Name * Required Field*
- Email * Required Field*
- Reason of inquiry * Required Field*
- Message * Required Field*

The gathered information will then be sent via SMTP email relay to the Admin Users of the site.

3.1.3. CCM Search Tool

The CCM Search Tool will allow visitors of the site to be able to search for general information about each ministry in the network. Users will be able to search by city and state, zipcode, or school name.

3.1.4. General Search Bar

The search bar will allow visitors of the site to be able to search for general information within the site.

3.1.5. Login Form

The login form will be available on all pages, and will allow the user to enter their login credentials in order to login to the web site. Logged-in Users will be taken to their personal home page.

3.1.6. Registration Form

The registration form will allow Viewers to register in order to be able to log in. Users will be required to enter a username, their email address, and a password in order to register. Once registered, the user will be able to log in and use the site's features as a Logged-in User.

3.1.7. Catholic Campus Ministry Submission / Edit Form

The Catholic Campus Ministry Submission / Edit Form will allow users to submit a CCM to the Network of Ministries on the application.

3.1.7.1. Admin CCM Management

The administration functions of the CCM Network to be carried out by the Admin User of the web app.

3.1.7.1.1. Approve/Disapprove

An email notification will be sent to an Admin when a CCM is added to the CCM Network. Admin Users will be able to approve and disapprove CCMs submitted by general users. Admin approval will result in the addition of the user-submitted CCM to the database and the publication of the information on the site.

3.1.7.1.2. Add

Admins will be able to add CCMs, which will result in the addition of a CCM to the database and to the published site.

3.1.7.1.3. Delete

Admins will be able to delete CCMs, which will result in the removal of the CCM from the database and from the published site.

3.1.7.1.4. Update

Admin Users will be able to update the information for a CCM in the database.

3.2. User interface requirements

3.2.1. Mobile-responsive

The ASJB Web App will adapt across common viewports allowing effective functionality on modern mobile devices. The viewport widths to be tested include, but are not limited to:

- Less than or equal to 320px
- Greater than 320px
- Greater than 480px
- Greater than or equal to 768px
- Greater than 1200px

3.2.2. Cross-browser compatible

The ASJB Web App will work across modern browsers without interface error. Web App will be viewable across Safari, Chrome, and Microsoft Edge.

3.2.3. Mobile user interface requirements

The mobile user interface will be displayed in an easy-to use, app-like manner. Users will be able to navigate the web app easily using mobile devices. Mobile device platforms to be tested for ease of use include but are not limited to:

- Android
- iOS
- Windows

3.3. Error handling requirements

3.3.1. Incorrect Username/Password

If the user enters the incorrect password or username, the system will notify the user that incorrect username or password was entered and prevent login.

3.3.2. No User in Database

If the user tries to login with a username that doesn't exist, the system will notify the user that the entered username does not exist in the database.

3.3.3. Username Unavailable

Upon registering, if the user enters a username that is already taken, the system will notify that the username entered is unavailable. The system will then request that the user enters a different username.

3.3.4. Error in Form Submission

If any form has an error sending, the user will be notified of the error in processing the request.

3.4. Security requirements

3.4.1. Password security / verification

For Viewers to have access to the Checklist and Bookmark features, they will login to their account using a username and password that the system verifies are a match. These features will only be accessible by a Logged-in User.

3.4.2. Search Tool security

Both search tools will be protected from database injection.

3.5. Input requirements

3.5.1. Registration

The Registration form will accept at least an email and password from the registering user. It is suggested that the email serve as username because it is a unique user identifier.

3.5.2. Login

Login form will accept a username and password.

3.5.3. CCM Search Tool

The CCM Search Tool will be a search bar that accepts a location input. The search criteria that can be entered include city and state, zip code, or school name.

3.5.4. General Search Bar

The General Search Bar will accept any string input and search the site for pages containing the string. A list of page links will be output.

4. Non-Requirements

The following items are outside the scope of the project and will not be implemented in the final web app.

4.1. Training

Additional training will not be necessary for the utilization of the web application. The software development documentation will provide enough basic information for using the web app.

4.2. Database backups

Database backups will not be provided by the service developers. It will be the client's responsibility to maintain the ASJB Web App.

4.3. SSL Certificate

The SSL Certificate will not be provided by the ASJB Web App Developers. The client will be responsible for purchasing an SSL Certificate from the Authority of their choice.

5. Assumptions

To thoroughly use the web application, the following assumptions are made about the standard users:

- Users will have internet access.
- Users will be familiar with the conventional user interface of other web applications.
- The app will be used on up-to-date versions of the most common web browsers.
- The app will primarily be used on mobile devices.

- Users will have a functional email in order to contact ASJB and to register for an account.

6. Appendices

6.1. Appendix A: Other Design Matters

These are features that will be decided by the implementation of the development team. These are not client-based requirements.

6.1.1. Content Management Feature

Consideration shall be given by the development team as to the best practice that will allow the Admin and Sub-user Admins to add, edit, and remove content easily on the site.

6.1.2. Capacity

Consideration shall be given by the development team as to how many users the system will support to provide adequate service. Consideration should also be given as to the number of entries the system will support in a given time frame, how many SMTP email relays will be supported, and how much traffic the application will be able to support in general.

6.1.3. Processing

Processing goals will be determined by the design choices of the development team.

6.1.4. Output

Output decisions -- including the formatting of CCM Search Tool output -- will be determined by the development team.

6.2. Appendix B: Glossary

- 6.2.1. Admins:** Admins are main administrator users of the application who are set up by the development team, and have superuser permissions including adding and editing all pages and permissions of the other types of user.
- 6.2.2. ASJB:** Associates of St. Johns Bosco

- 6.2.3. **Catholic Campus Ministry:** Any Catholic Ministry that aligns itself with a particular college and provides services to the students entering or attending that college.
- 6.2.4. **CCM:** Catholic Campus Ministry
- 6.2.5. **Dynamic:** A page is generally referred to as dynamic when the information on that page changes depending on the user viewing the page.
- 6.2.6. **Logged-in Users:** Logged-in Users are users of the application who have completed the registration process on the site.
- 6.2.7. **Ministry Network:** The Ministry Network is defined as the complete set of information about each CCM that is available in the application.
- 6.2.8. **Static:** A page is generally referred to as static when the information on that page is the same for all users in the application.
- 6.2.9. **Sub-user Admins:** Sub-user Admins are users of the application who have completed the registration process, and who have been granted permission to edit static pages on the site.
- 6.2.10. **Viewers:** Viewers are non-logged in users of the application that have access to only those pages and features designated available to the public.

INDEX

About.....	3.1.2.1	Login form.....	3.1.5
Administrator.....	3.1.1.1	Login.....	3.5.2
Admins.....	6.2.1	Ministry Network.....	6.2.7
Admin CCM Management.....	3.1.7.1	Mobile-responsive	3.2.1
Appendices.....	6	Mobile user interface requirements.....	3.2.3
Application characteristics.....	2.2	No user in Database.....	3.3.2
Approve.....	3.1.7.1.1	Non-Requirements.....	4
ASJB.....	6.2.1	Page requirements.....	3.1.2
Assumptions.....	5	Password security / verification.....	3.4.1
Bookmarks	3.1.1.4.1	Processing.....	6.1.3
CCM Search Tool.....	3.1.3	Product scope.....	1.2
Catholic Campus Ministry Submission.....	3.1.7	Purpose.....	1.1
Catholic Campus Ministry.....	6.2.2	References.....	1.3
Capacity.....	6.1.2	Registration.....	3.5.1
Checklist.....	3.1.1.4.2	Registration form.....	3.1.6
Client characteristics.....	2.1	Requirements.....	3
Contact ASJB.....	3.1.2.4	Resources.....	3.1.2.2
Content Management Feature.....	6.1.1	Search Tool security.....	3.4.2
Cross-browser compatible.....	3.2.2	Security requirements.....	3.4
Delete.....	3.1.7.1.3	SSL certificate.....	4.3
Disapprove.....	3.1.7.1.1	Static.....	6.2.7
Document overview.....	1.4	Sub-user Administrator	3.1.1.2
Dynamic.....	6.2.5	Sub-user Admins.....	6.2.4
Edit Form.....	3.1.7	Update.....	3.1.7.1.4
Error handling requirements.....	3.3	Usability.....	2.4.1
General constraints.....	2.4	User characteristics	2.3
General requirements.....	3.1	User interface requirements.....	3.2
General Search bar.....	3.1.4	User Requirements.....	3.1.1
Glossary.....	6.2	Viewers.....	3.1.1.3
Home	3.1.2.1		
Incorrect username/password.....	3.3.1		
Input requirements.....	3.5		
Logged-in users.....	6.2.5		

CONTRIBUTIONS

Diego Bustamante

- Introduction
 - Purpose
- Overall Description
 - User Characteristics
- General Requirements
 - 3.1.1.1-3.1.1.4
- Assumptions
- Non-Requirements
 - 4.1-4.2
- Error Handling
 - 3.3.1-3.3.4
- Index

Ashley Pontiveros

- Introduction
 - Scope
- Overall Description
 - Application Characteristics
 - General Constraints
- General Requirements
 - Page Requirements
 - User Requirements
 - 4.1.1.1-4.1.1.3
 - User Interface Requirements

Hannah Morgan

- Introduction:
 - References
 - Document Overview
- Overall Description:
 - Client Characteristics
 - General Constraints
- General Requirements:
 - 3.1.3-3.1.7