COSC 412

Individual Project

Gurmilan Singh Sangha

Meeting 3/31/2021

**1.1 Project Introduction**

I am aware that the Sikh religion stands upon the principles of community and collaboration. Creating a website and an online platform for the Gurdwara could be a great way to draw in potential visitors and gain even more members of your community! In this day and age, the internet is the go-to resource for all information. The ease of typing in a few words or a phrase into a search engine and having access to thousands of websites of information is truly remarkable. By creating a website, users can share pictures, event details, and inform other users about the Sikh religion on a massive scale as many other Gurdwaras have done. A website for the Singh Sabha of Maryland could potentially increase the number of weekly visitors, increase donations by attracting the public, and would allow easy dissemination of information. The users will have the option to view important facts like hours, location, details about future events and pictures from past events. The users will also be able to upload content for the whole community to see. The proposed website could be named Ssob.xyz

**1.2 Project Deliverables**

* The website will be maintained through WordPress and all functions and features will correspond to requirements from the client listed in the documentation.
* The client can expect to the delivery date of the product to be late April/ early May.
* Individual Project Proposal
* Permission from Admin Staff (@Gurdwara)
* Design Review Mtg meeting
* List of requirements
* <https://github.com/Gsangha107/COSC412-Personal-Project>
* Use Case Diagram
* SPMP
* Proposed Design
* List of Tools
* Functioning Website
* System Test Procedure
* Milestone Review
* Presentation

**1.3 Evolution of the SPMP**

* Corrections might need to be made the SPMP after meeting with Professor Broadwater.
* Modifications made to user requirements.
* Currently the main features the client required were that users able to share posts/comments about posts, view the gallery from recent events or important places within Sikhi and create accounts to feel more involved. Some more basic features are the location, hours, and some background information.

**1.4 Development Approach**

* The project team has deemed the Agile software development ideology will best fit the needs of the client within the current parameters. The first step to the agile development is requirements which were set by the client and then documented in the documentation attached. The project team was given some guidelines and guidance for what the client required in the design and overall layout of the website which was then recorded in the WBS and Technical requirements documentation. The project team will implement all the aspects of design, feature, and functionality on SSOB.xyz. Testing will be done after all implementation/deployment has been completed to ensure that all design, feature, and functionality have been included and function properly. Review is the last step before the circular cycle begins again which the project team will monitor all the plugins for WordPress and the hosting cost to ensure all design, feature, and functionality still work as intended.
* The justification of the agile software development ideology, I chose this because I felt it would be the best for my personality, I feel much more confident in my ability to complete a big project when each step is not set in stone before moving to the next step of the process, especially this semester with so many different project I felt if I chose water fall or some other ideology I would not be able to perfect each item individually.

**1.5 Definitions and Acronyms**

**Gurdwara** - the holy temple for people in the Sikh religion and it translates to the Guru’s Door.   
**Sangat** – is the name of the congregation of the Gurdwara.

**2.0 Project Structure**

* Gurmilan will be the sole contact in this project, I intend to take this on as an individual project. As a native Punjabi speaker, I believe this will stand a great advantage with communicating with the elders of the Gurdwara who may have contributions for the website. My role will range from the client liaison to the developer for this project. As both the manager for this project and a member of this Gurdwara, my role is a double-edged sword; I can make executive decisions for the website with the insight I have as a member and I can reach out to the leaders and other members of the Gurdwara for input in the decision-making process. The deadlines, however, will be provided by Professor Broadwater. The project team will be paying for the necessary resources for this project but will try to limit spending since due to budgetary constraint.

**2.1 Changes in the development process**

* All changes will made will be agreed by both parties to allow for a better product and will be for the benefit for the end user, any changes made will also result in the modification of any related document like the user case diagram, Gannt chart etc. All documents will be stored and on GitHub to allow for accurate record of the modifications.

**2.2 Assumptions, Dependencies and Constraints**

* An assumption that was made is that a large portion of the products like API’s/Plugin and other services like hosting and purchasing the domain name will be relatively inexpensive or free. The project will be dependent on the plugins from WordPress to function properly. A constraint which I must disclose to you is the limited amount of money which I can use to create this website. However, a dependency of this project is you! A large part of website creation is making sure that the client is happy and uploads the appropriate information; I will depend on you, the leaders of the Gurdwara, to make sure that the information and design is appropriate and abides by religious rules.

**2.3 Risks**

* Difficulty of the project
  + As the project will likely expand as time continues the level of difficulty will incrementally increase. Implementing all the features with the budgetary restraints with the combination of WordPress some level of ingenuity will definitely be needed to fulfill all the requirements.
* Inappropriate usage
  + Like all websites, I am planning to deal with users that might not comply with terms of service and the user’s policy. To help combat bots and other brute force attacks there needs to be different layers of security. Failing to implement might lead to inappropriate content being uploaded and large costs due to increased costs.
* Size of the project
  + The size of the project is already fairly large and I must make sure all functions are working correctly, while I am a capable programmer this is my first time creating a website. However, I assured the client that I am qualified to create this website and will try to limit the impact that these risks will have on the Gurdwara’s reputation and its community members.

**3.0 Technical**

**3.0.1 Tools to be Used**

* WordPress
* GitHub – used for version control
* Positive SSL – Provides an SSL certificate the website
* Draw.io – used to make diagrams
* Loginizer – prevents brute force attacks on the login page. Version (1.6.6) - Plugin
* Modern Events calendar lite – Calendar to display official events Version (5.17.6) - Plugin
* Premium Addons for Elemontor Version (4.3.1) - Plugin
* User Registration Version (1.9.6) - Plugin
* User Submitted Posts Version (202110212) - Plugin
* WP Forms Lite Version (1.6.6) - Plugin

**3.1 Explanation of the tools and methodology**

* To assure you of my abilities, I can tell you a bit about my past experiences. I have used Name Cheap and WordPress to create a website for my neighbor. He is a therapist in the Baltimore area and has greatly benefitted from the creation of his website, but I also learned a lot from the experience. This project will be a good test of my abilities and allow me to show my skillset. I have also decided to follow the Agile . I have created a design and am beginning to develop the website. Testing the website will be very important part of the project. Once that is developed, the project can be published in its final factor. I chose this methodology over the Agile methodology because I have a fixed time, fixed scope, fixed budget. Agile is meant for large enterprise level projects so I believe the aforementioned Agile methodology will be most appropriate in this situation.

**3.2 Technical User Requirements for Each User**

**Generic website**

* The website will display a home page.
* The website will display a post page.
* The website will display a hours and location page.
* The website will display a events calendar with accurate and up to date events.
* The website will display a gallery page.

**Admin User**

* The admin will be the only user allowed to add calendar events.
* The admin will be able login and logout.
* The Admin users will be able to upload a bio with personal info.
* The Admin users will be able to upload posts.
* The Admin users will be able to Read blog posts.
* The Admin users will be able to upload pictures.
* The Admin users will be able to comment on pictures.
* The Admin users will be able to view pictures.

**Verified Users**

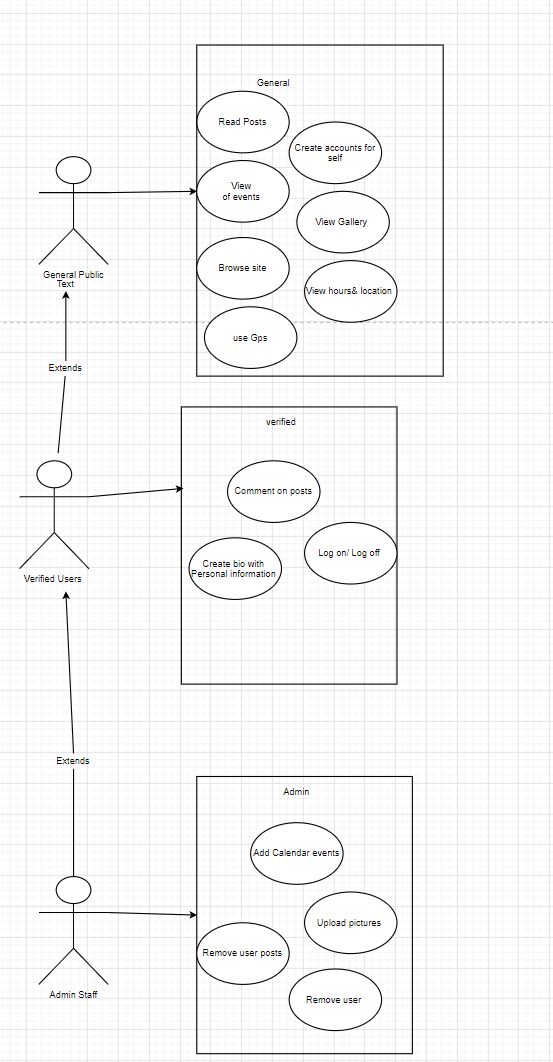
* The Verified users will be able login and logout.
* The Verified users will be able to upload important posts .
* The Verified users will be able to Read blog posts.
* The Verified users will be able to upload pictures.
* The Verified users will be able to comment on pictures.
* The Verified users will be able to view pictures.
* The Verified users will be able to upload a bio with personal info.

**General Public Users**

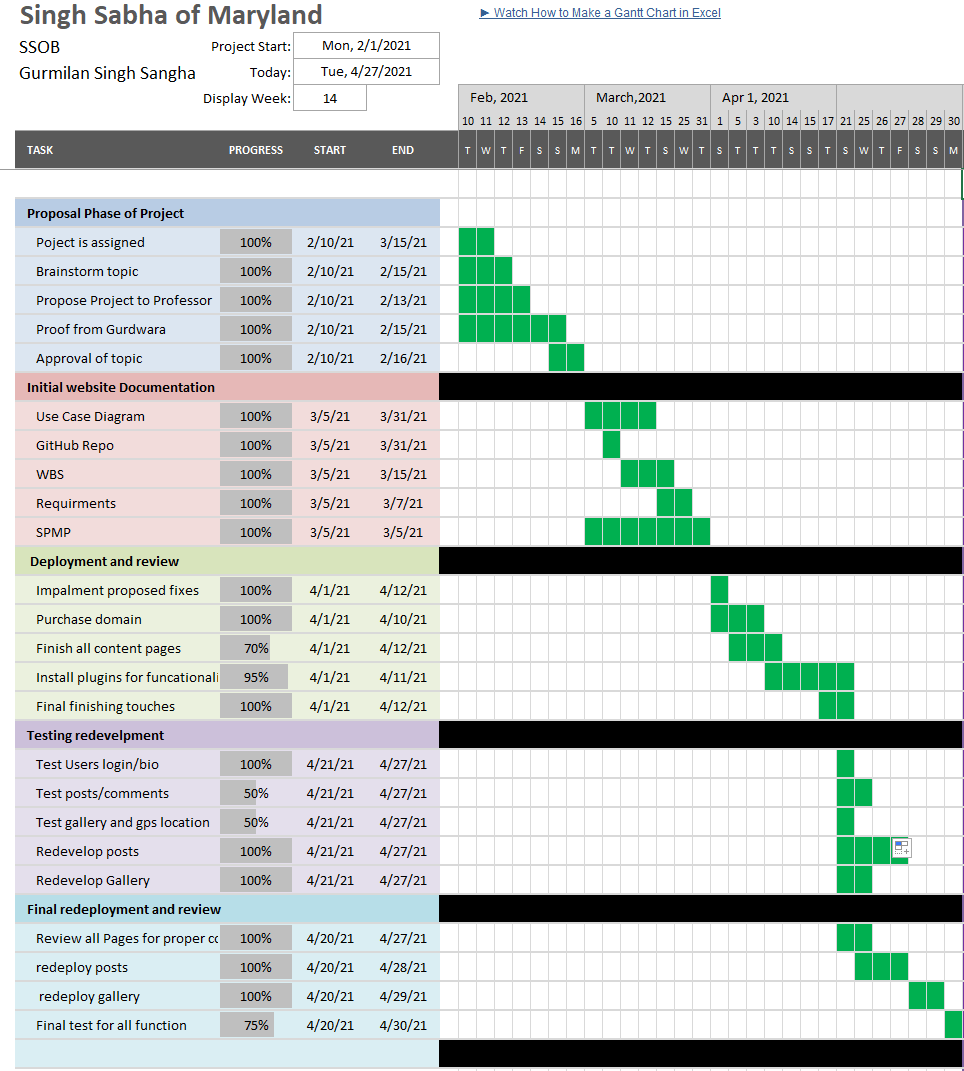
* The General Public users will be able to view pictures.
* The General Public users will be able to read blog posts.
* The General Public users will be view calendar events.

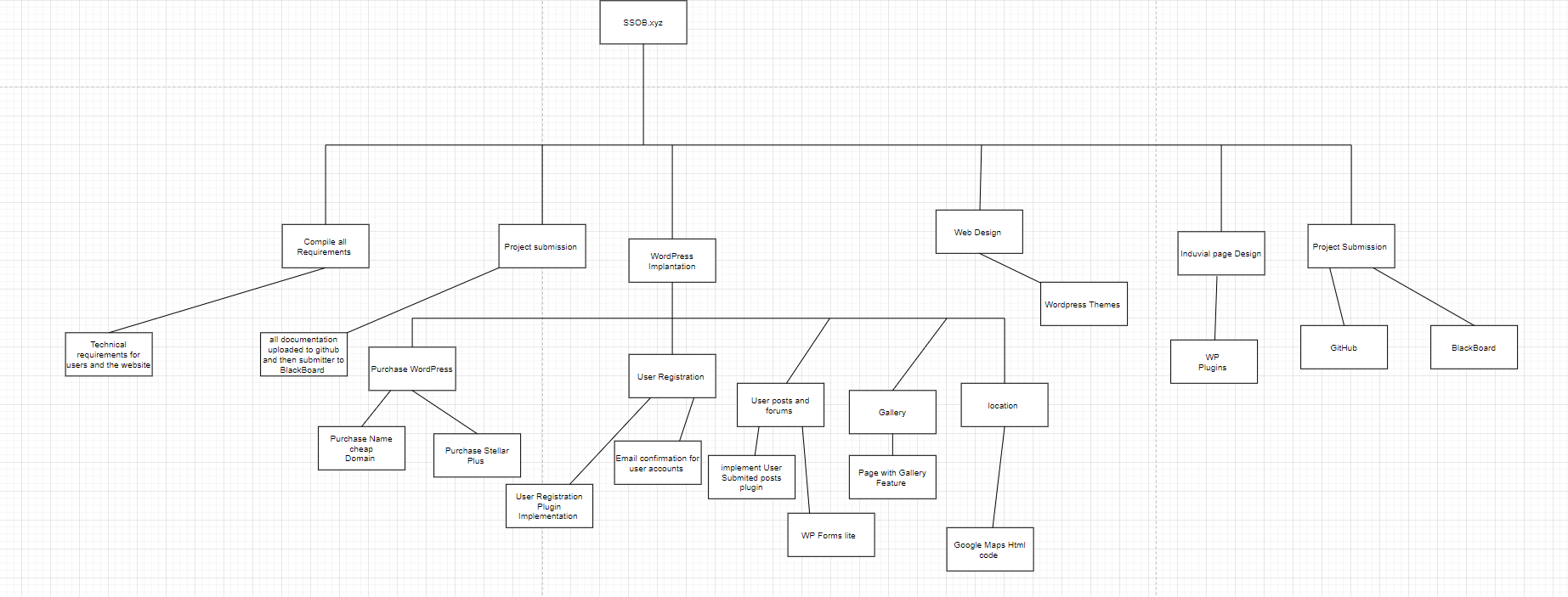
**3.3 User Diagram**

* Based on my previous experiences, I would strongly recommend that we move forward with a website with three different types of users. There would be the general public, verified users, and then administrative staff. The general public would have limited abilities, mainly only being able to read the site, view the pictures, and create a bio for a personal user. Verified users would have to contact the administrative staff in order to gain additional access. They would log in and gain the ability to upload blogs, pictures, comments and to request calendar events for services which they wish to claim. The administrative staff has all the aforesaid abilities, but can also remove posts, create other admin users, add calendar events, and ban users.



**3.4 Gantt Chart**



**3.5 WBS Chart**

**3.5 Meeting with Professor**

