

Software Requirements Specification

for

GroupScheduleWebApp

Version 1.000

Prepared by

Group Name: SAF

Skylar Cruz
Alberto Clara
Fabiane Yeung

#11619299
#11603391
#11625240

skylar.cruz@wsu.edu
alberto.clara@wsu.edu
fabiane.yeung@wsu.edu

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Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.000	Skylar Cruz Alberto Clara Fabiane Young	First completed version of the SRS document for the GroupSchedule Web Application.	10/7/18

1 Introduction

*This document is an **SRS** for the GroupSchedule (**GS**) Web application. It is an application which allows users to join groups and coordinate schedules with each other by comparing availabilities between several users. This section details the document's purpose, the scope of the application, and identifies the intended audience of this document. It also includes details about the contents of the document including references and acronyms/abbreviations used throughout.*

1.1 Document Purpose

*The purpose of this document is to describe the requirements of the **GS** web application. This includes system requirements such as hardware and software as well as the functionality of the application. It explains the use by its intended audience in detail. This document is intended to be used as a proposal for developing initial versions.*

1.2 Product Scope

The GroupSchedule has the purpose of gathering the information of the group members and display their common availability. The objective of this software is to help the users with time management and our goal is to present a friendly interface where any individual with basic knowledge in computer can use.

1.3 Intended Audience and Document Overview

Professor:

An evaluation for feedback to improve the document.

User:

This document was written to easier the use of the program and to provide a better understanding of it. A basic computer knowledge is required to be able to use and/or understand the content in this file. The definitions of acronyms used can be found under section 1.4, a full description of the software and the functionality of it can be located furthermore.

1.4 Definitions, Acronyms and Abbreviations

GS = GroupSchedule

SRS = Software Requirements Specification

1.5 Document Convention

This **SRS** document used the following styles:

Headers: Arial Font, Size 14, Black

Text: Arial Font, Size 11, Black.

Any bold letters used in this document signal that it is important for the given section, such as headers.

All the acronyms defined on section 1.4 will be marked in in bold and use blue color.

1.6 References and Acknowledgments

“free flowchart maker and diagrams online,” Flowchart Maker & Online Diagram Software. [Online]. Available: <http://www.draw.io/>. [Accessed: 05-Oct-2018].

2 Overall Description

2.1 Product Perspective

<Describe the context and origin of the product being specified in this SRS. For example, state whether this product is a follow-on member of a product family, a replacement for certain existing systems, or a new, self-contained product. If the SRS defines a component of a larger system, relate the requirements of the larger system to the functionality of this software and identify interfaces between the two. In this part, make sure to include a simple diagram that shows the major components of the overall system, subsystem interconnections, and external interface. In this section it is crucial that you will be creative and provide as much information as possible.

TO DO: Provide at least one paragraph describing product perspective. Provide a general diagram that will illustrate how your product interacts with the environment and in what context it is being used, i.e., context diagram.>

The idea of this program came when the group members were having obstacles to find a common availability.

This web application is a self-contained scheduler-maker. Its main purpose is to receive directly from the user input that shows the availability and compares it with other users within same group. Once it contains the input it would then visually show a schedule with the overlap of the members of the group. The application is meant for use with coordinating between people in groups, with its main target being students.

2.2 Product Functionality

- Create user accounts
- Allow users to create/join groups
- Allow users to create availability schedules
- Allow users to submit availability schedules within a group
- Compare availability of all combinations of users in a group
- Admin privileges given within groups.

2.3 Users and Characteristics

System Administrators:

Developers of the application

- Can delete groups/users from the application

Group Administrators:

Comprised of important users within groups

- Users that create a group automatically become an administrator of that group
- Users may be promoted to group administrator by the current administrators of a group
- Invite/Remove/Ban privileges within groups
- Inherits all standard user privileges

Users:

Any individual may create a user account through the web application

- Create/join multiple groups
- Create availability schedules including master schedules and unique group schedules for each group they belong to

2.4 Operating Environment

The program is written in JavaScript and it's designed to work under browsers such as Google Chrome. The recommended hardware to be used is either a desktop or a laptop but it can also be accessed through mobile devices. Be aware that it could present problems when using those devices as it wasn't designed to fit them.

2.5 Design and Implementation Constraints

- It should work on mobile devices since it's a web app, but it might have bugs
- The source file of the program will be available for the public, so people can modify it
- If we want to publish online, we would have to buy a domain
- No password recovery, so if the user loses their account they will have to make a new one

2.6 User Documentation

The Web application will include a help page which will provide users information on how to use the application. It will be accessible by all users and show them how to create schedules, join groups, create groups and administrate their groups.

2.7 Assumptions and Dependencies

Dependency1: *Use Google Authentication or similar Authentication from a third party to take care of signing in and managing account. For example, Google Authentication would take care of resetting a password in case a user was to lose it. This would possibly allow a greater the encryptions of the password to be greater.*

3 Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

The web application will be an accessible website with several pages for users to access

- *A splash page explaining the application and instructions on joining/creating an account*
- *A sign up/log in page*
- *An account page listing all currently joined groups and buttons for creating/joining groups*
- *Group pages which display various schedules for each user and combined schedules*

3.1.2 Hardware Interfaces

GS is supported by any operating system such as: Windows, Linux, and macOS. The program will work as it was designed to in a desktop/laptop on a browser. On the other hand, it might not work correctly on a mobile device or other small screen devices.

3.1.3 Software Interfaces

GS will be designed specifically for browsers where the user will connect to a webpage and it will display an interface where the user will be able to register, login, and get password support from our third parties. Also, to get a better experience with GS the user might want to use a more recent system like: Windows 7 and up, Linux distros such as Ubuntu.

3.1.4 Communications Interfaces

All user's account information such as passwords and user names will be encrypted to ensure security for users. The encryption will not be managed by us but rather a third party. Communications through the third party will be done in HTTPS or a similar standard.

*Messages between users will only be possible outside of the **GS** such as text messages or similar methods.*

3.2 Functional Requirements

Create user accounts

- *Sign up page will provide users the ability to create user accounts*
- *Users provide an e-mail address and request a user name and password*
- *Passwords are to be encrypted and e-mail addresses hidden from other users/group admins*

Allow users to create/join groups

- *Users can create groups.*
- *Groups can be given any name but are also supplied with an ID number*
- *Users can join groups by searching for the group name and ID number. An administrator must approve any user attempting to join a group.*

Allow users to create availability schedules

- *Users set individual schedules of availability.*

- Scheduling is broken down into 30-minute chunks
- Users can set availability for any given day, to repeat weekly, monthly, or annually.
- Multiple user schedules can be created

Allow users to submit one availability schedule to a group

- All groups contain a master schedule which combines the schedules of all the users in the group
- Users can submit a single availability schedule to a group
- Any changes applied to the individual schedule will be reflected in the group schedule

Compare availability of all combinations of users in a group

- Group pages will display all schedules of individuals in a group
- Master schedule shows the availabilities of the combined schedules
- Availabilities will be shown for any combination of combined users
- Users can toggle user schedules on and off on the master schedule

Admin privileges given within groups.

- Invite users to group
- Accept users requesting access to group
- Remove users (not administrators) from group
- Promote users to administrators of a group
- Demote self to user (if another administrator exists in the group)

3.3 Behavior Requirements

3.3.1 Use Case View

4 Other Non-functional Requirements

4.1 Performance Requirements

Comparing availability schedules should be a quick process. Combining schedules within a group and properly displaying combined availabilities should not take longer than a couple of seconds and in most cases will be instantaneous.

4.2 Safety and Security Requirements

- Passwords will be encrypted to protect our users
- An account can only be made under one e-mail
- Our third party will take care of the security level

4.3 Software Quality Attributes

Flexibility:

- The app allows the user to manage their schedule
- It will select the best time of their common availability

Portability:

- Can be accessed from any desktop/laptop
- May be able to access from their mobile devices

Usability:

- User will have a 'HELP' button to get possible questions answered
- A friendly and simple interface makes it easy to navigate the program

Appendix A – Data Dictionary

<Data dictionary is used to track all the different variables, states and functional requirements that you described in your document. Make sure to include the complete list of all constants, state variables (and their possible states), inputs and outputs in a table. In the table, include the description of these items as well as all related operations and requirements.>

User Type	Delete groups and users	Invite/remove/ban users from groups	Promote Users/Demote Self	Join/Leave/Create Groups	Create/Delete/Submit Schedules
System Administrator	✓	✓	✓	✓	✓
Group Administrator		✓	✓	✓	✓
Normal User				✓	✓

Name	Type	Description	Notes
User Name	String	All users must provide a user name when signing up to use the GS application.	All User Names must be unique from each other
Group	Object	Unique object which holds variables for the structure of a group in GS.	
Schedule block	Binary	Physical Representation of timeslots in schedules. Has an on and off state.	

Inputs	Description
Login	Users will log in with an encrypted password. The login service may be handled by a third party such as Google Authentication.
Schedule input	Users input information about their availability into a schedule. These times will in 30-minute blocks.
Contact Us	User will be able to contact the owner of the website for any support or

	question. There will be a template provided for the user.
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Outputs	Description
Schedule Output	After schedule information is input by the user, a graphical representation of the schedule will be displayed
Master Schedule	Will provide overlaps of individuals schedule.
Print Schedule	All schedules will be able to be printed using the user's pc printers

Appendix B - Group Log

Sept. 27 2:40pm to 6pm

- Come up with ideas of what we want to do for the project
- Choose and implement the idea
- Sketch the interface of the web application
- Discuss what language we want to use
- Started the **SRS** document

Oct. 3 11:30am to 12:30pm

- Divide sections between team members
- Review what was done on the document
- Continue working on the document

Oct. 7 6:30pm to 8:20pm

- Review the document
- Change some sections
- Finalize the **SRS** document