CIS 4911 – SENIOR PROJECT

Picture Marketing’s Social Wall

Software Requirements Document

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Mentor: Cortney Mills

09/08/2014

Instructor: Masoud Sadjadi

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**1. Introduction**

This section deals with introducing our project and defining our purpose, scope, terms, and acronyms. It also deals with describing how the rest of this document will unfold, describing our feasibility study, as well as our project plan.

**1.1 Problem Definition**

The problem our project, the Social Wall, deals with is the inability for clients to display photo albums in a slideshow from social media sites and cloud storage apps in a quick and efficient manner. While it is possible to accomplish, it is normally tedious to set up and gives you a very limited amount of customization on how you want to show your slideshow.

**1.2 Scope of System**

For this project, we must ensure that our work delivers a product that is satisfactory. This is done through planning out how the work is split up, implementing all the necessary use cases, staying on the schedule provided, using the budget wisely, and obtaining all the resources necessary to carry out these tasks.

**1.3 Terminology - Definitions, Acronyms, and Abbreviations**

PM - Picture Marketing

SW - Social Wall

FB - Facebook

h/w - Hardware

s/w - Software

More definitions/acronyms to come when document is in Final Draft

**1.4 Overview of document**

In this document, we will discuss the software application to be developed. The project plan for this current deliverable is discussed we will discuss the current system in place today, the purpose of the new system we are going to implement, define our user requirements, describe the alternative solutions, and offer recommendations. This gives us our purpose behind our project and helps us move forward.

In our Project Plan, we discuss how we will organize our project, which includes our personnel organization and our h/w and s/w resources, and we identify our task, milestones, and deliverables for the rest of our project.

**2. Current System (Limitations and Problems)**

In the current system, to display a slideshow, whether as a form of advertisement or at an event, a company has to either download the images directly into their device and run it through a desktop slideshow application, or click through each individual image directly through social media site and display the images that way. This current system forces companies forces companies to dedicate time and resources for the creation of an appealing final product.

**3. Project Plan**

This section describes the plan of action for the software requirements document. Here, the member roles and work breakdown between members is described in detail for this current deliverable.

**3.1. Project Organization**

Joseph Gonzalez- Project Manager, Document Editor, Static UML Diagram Creator, Interface designer.

Juan Gonzalez-Llanos - Project Manager, Document Editor, Researcher, Dynamic UML Diagram Creator.

Cortney Mills - Mentor

Hardware:

* PC - Windows OS (7 or 8) or Mac (OS X or higher)

Software:

* StarUML (version 2.0.0)
* Trello (web application)
* Google Chrome
* Adobe Photoshop CS6
* Google Drive
* GitHub (version 2.0 for Windows or Web App)
* Tomcat 7.0
* Java EE
* Wamp Server
* Android Development Tools
* Webstorm
* Cordova/Phonegap
* AngularJS Framework

For this current deliverable, UML diagrams will be created in starUML software. Interface design will be created utilizing Adobe Photoshop CS6. Document preparation and writing will be conducted through Google Drive. Project Management activities will be maintained through online Trello application.

**3.2. Work Breakdown**

**3.3. Cost Estimate**

**4. Proposed System Requirements**

In this section, the proposed system requirements are presented and discussed in greater detail. The systems functional requirements along with their non-functional requirements are explained. UML diagrams describing both the static and dynamic aspects of the system are shown and expanded upon.

**4.1 Functional Requirements**

1) The system shall allow the user to generate a slideshow.

Refer to Appendix A: S-WALL/1-001/Generate Slideshow

2) The system shall allow the user to change the image cycle speed.

Refer to Appendix A: S-WALL/1-002/Image Cycle Speed

3) The system shall allow the user to change the background photo of the slideshow.

Refer to Appendix A: S-WALL/1-003/Edit Background Photo

4) The system shall allow the user to enter a recurring photo into the slideshow.

Refer to Appendix A: S-WALL/1-004/Add Recurring Photo

5) The system shall allow the user to digest photos from Facebook Account Album

Refer to Appendix A: S-WALL/1-005/Digest Facebook Account Album

6) The system shall allow the user to digest photos from Facebook Page Album.

Refer to Appendix A: S-WALL/1-006/Digest Facebook Page Album

7) The system shall allow the user to digest photos Dropbox Directory

Refer to Appendix A: S-WALL/1-007/Digest Dropbox Directory

8) The system shall allow the user to digest photos from an RSS Feed

Refer to Appendix A: S-WALL/1-008/Digest RSS Feed

9) The system shall allow the user to choose the source of photos for slideshow.

Refer to Appendix A: S-WALL/1-009/Select Photo Source

10)The system shall allow the user to cast mobile app onto Chrome Cast device.

Refer to Appendix A: S-WALL/1-010/Cast to Chrome Cast

11) The system shall capture requests made by users, and handle them respectively.

Refer to Appendix A: S-WALL/1-011/Handle Cast Request

**4.2 Analysis of System Requirements**

**4.2.1. Scenarios**

**4.2.2. Use Case Model**

**4.2.3. Static Models**

**4.2.4. Dynamic Models**

**5. Glossary**

**6. Appendix**

**6.1. Appendix A - Complete use cases**

**Use Case ID:** S-WALL/1-001/Generate Slideshow

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web app.

2. User must have selected source of images.

* **Description:**

1. The use case begins when the user clicks the "Generate Slideshow” button.

2. The system shall check if user has entered all necessary input.

3. The system shall display the images in a slideshow format.

4. The use case ends when the system presents the user with the slideshow of images.

* **Postconditions:**

1. The user shall be presented with with a slideshow of images according to the settings input by the user.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to generate the slideshow.
* The system is unable to display images.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** Will be used almost everytime software is used.
* **Criticality:** High. Core functionality of software.
* **Risk:** High. Dependent upon external entities.

**Constraints:**

* System shall present user with slideshow within 5 seconds.

**Modification History:**

* **Owner:**
* **Initiation Date:** September 8, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-002/Image Cycle Speed

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

2. User must be in slideshow settings.

* **Description:**

1. The use case begins when the user enters data into the “Image Cycle Speed” setting.

2. The system shall maintain user input as image cycle speed.

3. The use case ends when the system records the users input and displays the changed number.

* **Postconditions:**

1. The user can purchase the item from an external site or can simply close the window.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to change image cycle speed.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** Medium- High Frequency. Setting utilized at least once every application use.
* **Criticality:** Medium-High. Most users may utilize feature, but it is not the core feature of the site.
* **Risk:** Low.

**Constraints:**

* The system must change the image cycle speed in under .2 seconds.

**Modification History:**

* **Owner:**
* **Initiation Date:** June 8, 2014
* **Last Modified:** July 9, 2014

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**Use Case ID:** S-WALL/1-003/Edit Background Photo

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

2. User must be in slideshow settings.

* **Description:**

1. The use case begins when the user clicks on “Background Photo”

2. The system shall present the user with a form to choose a background photo to utilize.

3. The system shall then retrieve the photo and update the background photo.

4. The use case ends when the system shows the user that the background photo has been changed.

* **Postconditions:**

1. Background photo has been changed.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to change photo.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** Medium Frequency. Setting utilized depending on certain situation where feature is wanted.
* **Criticality:** Medium-High. As part of the core functionality of the program, user should expect this functionality to work as intended.
* **Risk:** Low.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** September 8, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-004/Add Recurring Photo

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

2. User must be in slideshow settings.

* **Description:**

1. The use case begins when the user clicks on check mark, activating recurring photo feature.

2. The user shall click on the “recurring photo” button.

3. The system shall then present the user with a method of selecting a photo to utilize as the designated photo.

4. The user shall select the photo and click “ok”.

5. The use case ends when the system shows the user that the recurring photo feature has been activated and a photo has been input.

* **Postconditions:**

1. Recurring photo feature has been activated and designated photo is present in system.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to retrieve photo.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** Medium Frequency. Setting utilized depending on certain situation where feature is needed / wanted.
* **Criticality:** Medium-High. As part of the core functionality of the program, user should expect this functionality to work as intended.
* **Risk:** Low.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** September 8, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-005/Digest Facebook Account Album

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

2. User must be in slideshow settings page.

* **Description:**

1. The use case begins when the user clicks “photo source” button.

2. The system shall present the user with the different source options available.

4. The user shall select the “facebook account” option from those presented.

5. The system shall present the user with a facebook login page.

6. User shall input correct credentials into login page and submit.

7. The system shall present the user with response of correct input.

8. The user shall click on the “get albums” button.

9. The system shall present the user with the available albums to be digested.

10. User shall select album of choice from list presented by system.

11. The use case ends when the system shows the user that the designated album has been chosen.

* **Postconditions:**

1. User has chosen album that will be used for slideshow engine.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** September 8, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-006/Digest Facebook Page Album

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

* **Description:**

1. The use case begins when the user clicks “photo source” button.

2. The system shall present the user with the different source options available.

4. The user shall select the “facebook page” option from the list of optoins

5. The system shall present the user with an input box.

6. User shall enter the name of the facebook page.

5. User shall click on the get photos button.

6. The system shall present the user with the albums available.

7. The use case ends when the user selects the album to digest.

* **Postconditions:**

1. User has set album from facebook page to be used in slideshow engine.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** September 8, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-007/Digest Dropbox Album

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

* **Description:**

1. The use case begins when the user clicks “photo source” button.

2. The system shall present the user with the different source options available.

4. The user shall select the “Dropbox” option from the list of options.

5. The system shall present the use with a dropbox login page.

6. User shall enter his credentials and submit.

5. System shall present user with available directories.

6. Use case ends when the user has selected the album desired for use.

* **Postconditions:**

1. User has selected and system has set dropbox album to be used for slideshow engine.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** October 5, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-008/Digest RSS Feed

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

* **Description:**

1. The use case begins when the user clicks “photo source” button.

2. The system shall present the user with the different source options available.

4. The user shall select the “RSS Feed” option from the list of options

5. The system shall present the user with an input box.

6. User shall enter the RSS Feed information

5. User shall click on the “next” button.

6. Use case ends when user has set RSS Feed information and has proceeded.

* **Postconditions:**

1. User has set up the RSS Feed link information and system is ready to digest photos.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** September 8, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-009/Select Photo Source

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User must be on web application.

* **Description:**

1. The use case begins when the user clicks “photo source” button.

2. The system shall present the user with the different source options available.

4. The user shall select an option from those listed to use as the source.

5. The system shall present the user with the function of accessing source.

6. User shall complete source process.

5. The use case ends when the system shows the user that the source option that has been chosen is active.

* **Postconditions:**

1. Source of images is that which user has chosen.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** October 5, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-010/Cast to Chrome Cast

**Use Case Level:** High Level

**Details:**

* **Actor:** User
* **Preconditions:**

1. User is utilizing mobile application.
2. User has setup source and settings.

* **Description:**

1. The use case begins when the user touches the “Cast” icon.

2. The system shall present the user with devices found on network.

3. The user shall select the Chrome Cast device wanted.

4. The system shall send a request to the server with users settings.

5. The system shall capture request and send the corresponding cast to device.

6. The use case ends when the device utilizing the Chrome Cast is displaying the correct photo feed.

* **Postconditions:**

1. Device running Chrome Cast is displaying photo feed.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** October 5, 2014
* **Last Modified:** October 5, 2014

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**Use Case ID:** S-WALL/1-011/Handle Cast Request

**Use Case Level:** High Level

**Details:**

* **Actor:** Server
* **Preconditions:**

1. User has sent a Chrome Cast request to the server.

* **Description:**

1. The use case begins when the system receives a Chrome Cast request

2. The system shall handle corresponding request adequately.

3. The system shall then handle request, and cast the photo feed with the users settings onto intended device.

**Postconditions:**

1. Source of images is that which user has chosen.

**Alternative Courses of Action**: N/A

**Exceptions:**

* The system is unable to access source.
* The system cannot connect to web.

**Related Use Cases:**

**Decision Support:**

* **Frequency:** High Frequency.
* **Criticality:** High. Needed for core functionality of system.
* **Risk:** Medium.

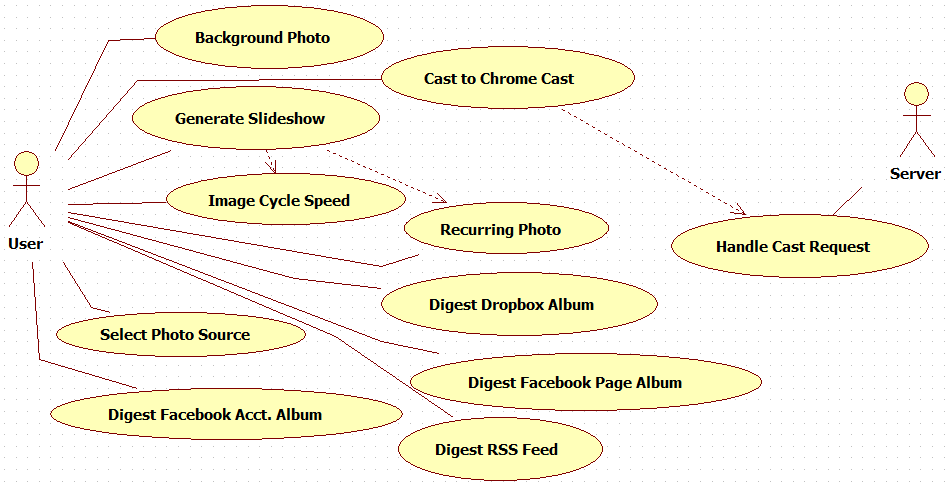
**Constraints:**

**Modification History:**

* **Owner:**
* **Initiation Date:** October 5, 2014
* **Last Modified:** October 5, 2014

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**6.2. Appendix B - Use case diagram using UML**



**6.3. Appendix C - Static UML Diagram**

**6.4 Appendix D - Dynamic UML Diagrams**

**6.5 Appendix E - User Interface Designs**

**6.6. Appendix F - Diary of meetings and tasks.**

Diary Entry 1:

Date: September 4, 2014

Location: Picture Marketing Offices

Start time: 2:30 pm

End time: 5:00 pm

In Attendance: Juan Gonzalez-Llanos, Joseph Gonzalez, Cortney Mills

Late: N/A

Agenda:

* Introduction and initial meeting
* Learn about Picture Marketing
* Explanation and details of the project
* Go over requirements of the system
* Talk about expectations of the project

Summary of Discussion:

Introduced ourselves to Cortney and the Picture Management. Discussed the Social Wall project, what is needed and what is expected.

Diary Entry 2:

Date: September 8, 2014

Location: Virtual meeting via Skype

Start time: 7:30 pm

End time: 8:40 pm

In Attendance: Juan Gonzalez-Llanos, Joseph Gonzalez

Late: N/A

Agenda:

* Talk about document drafts due
* Discussed use cases
* Come up with requirements and constraints

Summary of Discussion:

Discussed and worked on drafts that are due on September 8th and we came up with the use cases.

Diary Entry 3:

Date: September 19, 2014

Location: Picture Marketing Offices

Start time: 2:30 pm

End time: 4:30 pm

In Attendance: Juan Gonzalez-Llanos, Joseph Gonzalez, Cortney Mills, Louis Zuckerman

Late: N/A

Agenda:

* Discuss Development Approach
* Create Schedule
* Discuss requirements/finalize

Summary of Discussion:

Louis would become a mentor as well of the project. Had meeting to discuss how to approach the project and finalize requirement elicitation. Decided upon an android application, chrome cast compatible, as well as a web application. Discussed tools needed as well as framework that will be utilized being angularjs. Joseph would be in charge of android application, Juan in charge of Slide show engine and web app.

Diary Entry 4:

Date: September 26, 2014

Location: Picture Marketing Offices

Start time: 2:30 pm

End time: 4:30 pm

In Attendance: Juan Gonzalez-Llanos, Joseph Gonzalez, Cortney Mills, Louis Zuckerman

Late: N/A

Agenda:

* Show Facebook demo
* Discuss development approach

Summary of Discussion:

Discussion and acceptance of major work must be done on core parts of system. Must get android application running phonegap and slideshow engine must begin development.

Diary Entry 5:

Date: October 3, 2014

Location: Picture Marketing Offices

Start time: 2:30 pm

End time: 4:30 pm

In Attendance: Juan Gonzalez-Llanos, Joseph Gonzalez, Cortney Mills, Louis Zuckerman

Late: N/A

Agenda:

* Discuss phonegap project
* Slideshow engine

Summary of Discussion:

Phonegap project discussed in detail. Along with getting application running on emulator. See benefits of angular and begin approach to develop using framework. Slideshow engine displayed, must be converted to angularjs.