

## Resubmission Changes:

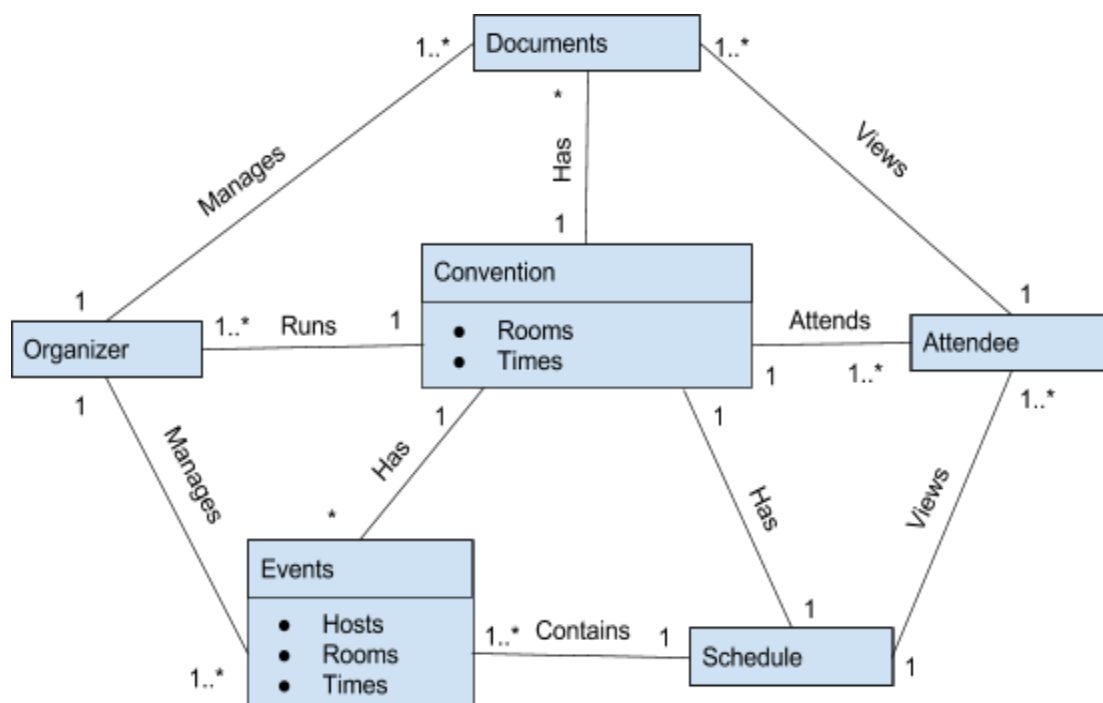
- Updated deployment diagram
- Edited some use case preconditions to be more specific
- Work breakdown structure includes documentation, etc.

## Lake Mountain Leprechauns - Elaboration Report

Maggie Borkowski, Rachel King, Michael Mortimer, Kyle Samson

(Note: A Glossary is available at the end of this document.)

## DOMAIN MODEL



## SUPPLEMENTAL SPECIFICATIONS

What follows is a list of supplemental specifications tied to the specified functionality for this project. All specifications are organized into two sub-categories: Front- & Back-End features. Within this, they are assigned one of three priority levels: Must, Should, Could.

“Must” priority defines top-priority features that are absolutely necessary for the completion of this project. “Should” priority defines features that are useful and will ideally be included in the final product, but that are not fundamentally required for its completion. “Could”

priority defines any features that are not ideal or fundamentally necessary, but that would provide some small or side benefit in adding, should the time and opportunity arise.

**Color Key: MUST, SHOULD, COULD**

### **Features and Capabilities**

#### *Back-End:*

1. Capabilities exist for user account creation and login.

*We plan to support user accounts for Organizers, to allow them to create and access multiple Conventions easily. This is a feature of the system, and will be tested using test accounts.*

2. Organizers can create Conventions, create Events within those conventions, join existing Conventions as Organizers, add Convention Attributes.

*As a core feature of this product, Organizers should be able to create and edit Conventions and their Attributes through the Back-End web application. This will be tested using fake accounts and fake input information.*

3. Organizers can upload Documents and define Event filter tags for their Conventions

*Organizers should be able to add additional information to their Convention to distribute to Attendees as needed. They can also provide additional organizational capabilities to Attendees viewing their schedule by categorizing their Events to allow for filtering the Front-End list. This will be tested by uploading test PDFs to the application, and by generating an invented list of Events and tags and testing it on both sides of the application.*

4. Organizers can view and edit Convention Attributes and Convention Details

*Organizers need to be able to edit different aspects of their defined Convention after the initial information has been input. This will be tested with various kinds of invented input.*

5. System provides a Schedule Generator for users that generates a potential best-fit Convention Schedule based on defined Events and Convention Details.

*This is a core feature of the product; the Back-End section will be able to provide potential schedules to an Organizer using their specified input. This saves the Organizer a great deal of time when putting their Convention together. This will be tested using a variety of fake Events and constraint as input.*

6. System pushes notifications to Attendees via the Front-End portion of this product when changes are made to Convention Attributes during the Time & Date of the Convention.

*As a bonus feature, it would be nice to have an automated way of alerting Attendees to important Event and Convention updates while things are*

*happening. This will be tested by altering various Attributes during a time period defined for a fake Convention.*

7. Schedule Generator provides feedback metrics to the user regarding the use and organization of their events within the provided Schedules.

*As a bonus feature, it would be nice to show Organizers some of the details in what occurred during their Schedule generation: which rooms had time conflicts, which Events were dropped from the Schedule altogether, etc. This will be tested much like the Schedule Generator.*

### **Front-End**

8. Application provides a homepage which allows Attendees to view Conventions they are attending.

*This is a core feature of the Front-End application; Attendees need an access hub for the Conventions they want to attend and all of the information contained therein. This can be tested with fake Conventions provided for the test user.*

9. Application provides a search function that allows Attendees to add more Conventions to their homepage.

*This is a core feature of the Front-End application; Attendees need a way to actually “attend” Conventions via this application. This can be tested with fake Conventions provided for the test user.*

10. Application provides a page through which to view a list of all Events at the given Convention.

*This is a core feature of the Front-End application; Attendees need a way to see and learn about different things going on at a given Convention. This can be tested with a fake Convention with a fake set of Events provided for the test user.*

11. The Events list is sortable by both name and time.

*It would be convenient and helpful to allow Attendees to search for Events using their respective names, or by looking at certain times they know they would be able to attend them, etc. This can be tested with a fake Convention with a fake set of Events.*

12. The Events list is filterable by Event Tags.

*It would be even more convenient for an Attendee to be able to search for specific types of Events, as defined by the Organizer. For example, at a Science Fiction themed Convention, an Attendee could search for all panels being hosted by guest speakers, or all movies being played. This can be tested with a fake Convention with a fake set of Events.*

13. Attendees can view detailed summaries of individual events at a Convention.

*More important than being able to view the Event title and time, an Attendee should be able to read a bit about what they're looking to go and see at a Convention. This is going to be accomplished within the application via Event sub-pages, accessible through the main title list. This can be tested with a fake Convention with a fake set of Events.*

14. Attendees can add events to a recorded Personal Schedule.

*It would be good to allow Attendees to collect specific Events they wish to visit in a personalized list. These Events can be collected directly from the main list for a given Convention. This can be tested with a fake Convention with a fake set of Events, to be added by a test user to a separate viewable list.*

15. Personal Schedule is sortable by name and time.

*A Personal Schedule has similar functional and organizational needs to the main Convention schedule/Event list. It would be nice to be able to sort and filter collected events. This can be tested with a fake Convention with a fake set of Events.*

16. Attendees can view convention Documents through the application.

*This is linked with the Organizer being able to upload desired Documents to their Convention. As the Back-End functionality for this is tested, so will this be tested in synch. (Viewing fake Documents.)*

17. Attendees receive notifications pushed from the Back-End portion of this product via a color-changing notification tab.

*It would be nice to notify an Attendee when important changes are made to Conventions they are attending. As the Back-End functionality for this is tested, so will this be tested in synch.*

18. Phone provides an alert (buzz or tone) to Attendees for upcoming events.

*It would be nice to notify an Attendee when important changes are made to Conventions they are attending, even when they're not directly viewing the application on their phone or mobile device. As the Back-End functionality for this is tested, so will this be tested in synch.*

## **User Interface & Usability**

### **Back-End:**

19. Field labels and instructions are present for all forms and services requiring input from the user.

*It is necessary to label and explain input fields to the Organizer so they can efficiently and successfully add information to their Conventions. If this is present, it passes the "test".*

20. Viewable Convention Assets are collapsible and organized.

*From the main Convention viewing page, all items displayed should be compartmentalized and ordered for readability. If the information is collapsable on the web page and placed under relevant section headers, it passes the “test”.*

21. Fonts, colors and other stylistic elements are consistent in the application, and with the Front-End segment of the product.

*For aesthetic purposes, all visual attributes of the different segments of this application should be uniform. Both the Front- and Back-End portions of this product will feature a consistent color set and font selection.*

#### **Front-End:**

22. Viewable Convention Assets are collapsible and organized.

*The Front-End application is likely to be viewed on a small screen, so compartmentalization of information is very important. If the information is collapsable on this segment of the application and placed under relevant section header pages, it passes the “test”.*

23. Fonts, colors and other stylistic elements are consistent within the application, and within the Front-End segment of the product.

*For aesthetic purposes, all visual attributes of the different segments of this application should be uniform. Both the Front- and Back-End portions of this product will feature a consistent color set and font selection.*

#### **Reliability**

##### **Back-End:**

24. System pushes notifications for other Convention changes directly after they are made

*The bonus notification feature, if implemented, should automatically notify Attendees of changes made to the Convention. If the Organizer edits anything in the Back-End, it will trigger this feature. This will be tested alongside (6) in the same manner.*

25. Schedule Generator displays top 5 schedules with least “dropped” events

*This is basic functionality for the Generator. It will display up to 5 possible Schedules at a time, and allow an Organizer to select among them, or generate a new set of Schedules. This can be tested with a fake set of Events fed into the Schedule and regenerated.*

**Front-End:**

26. Program displays information accurate and consistent with that provided by the Convention Organizer via the Back-End segment of the product.

*It is important that the information shown to the Attendee matches that provided by the Organizer; it is a core feature of this product. This can be tested by viewing fake input information in the Front-End and comparing it to that given in the Back-End.*

## **Supportability**

**Back-End:**

27. Web Application is functional in Firefox browsers.

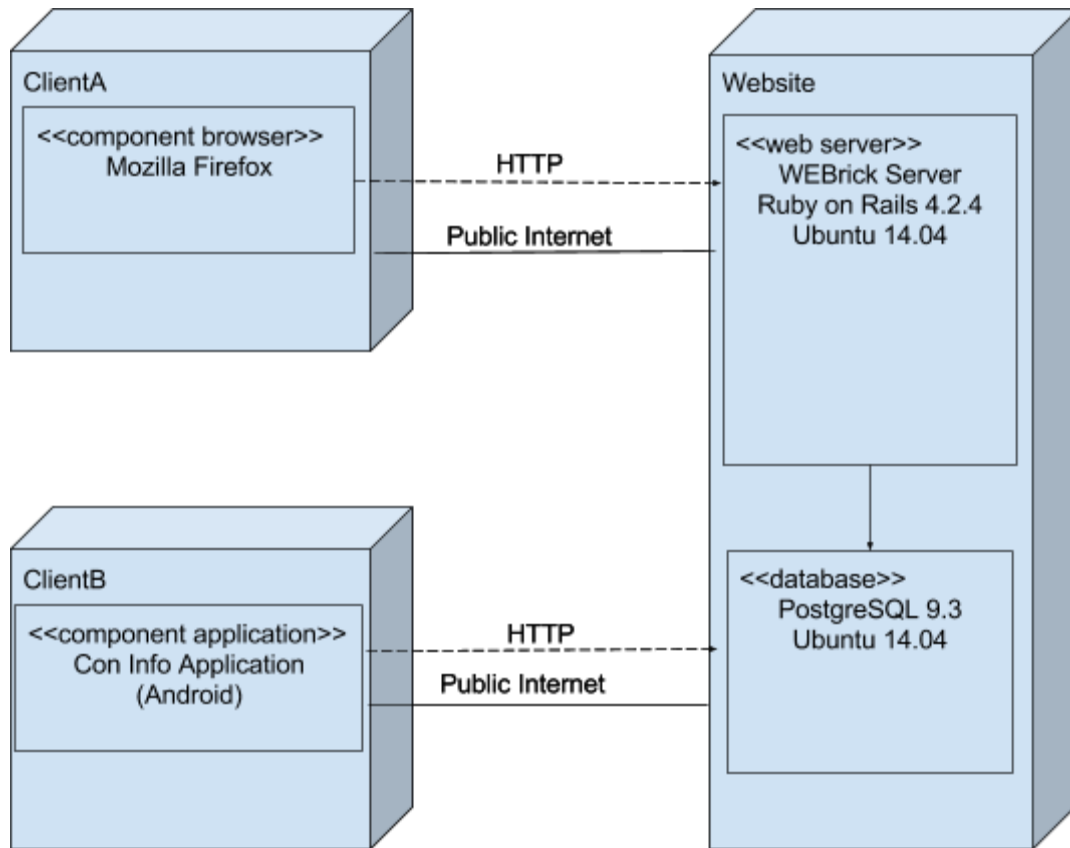
*A common and accessible web browser like Firefox should be able to display a functional version of our Back-End web application. This can be tested by running the application in this browser.*

**Front-End:**

28. Mobile Application is made available through the Google Play store.

*Mass and simple distribution is important; an Organizer ideally has a large number of Attendees who would like to view information on their phones or tablets. It is useful, then, to provide easy download/installation through this existing and popular platform. This can be tested by uploading & downloading the application from the Google Play Store.*

## DEPLOYMENT DIAGRAM



## USE CASES

Not included: SendNotification, ViewNotifications

CreateUserAccount	
<b>Identifier:</b>	BE1
<b>Description:</b>	An Organizer creates a back-end user account on management site.
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Organizer is on the site root page and not logged in.
<b>Flow of Events:</b>	<ol style="list-style-type: none"><li>1. Organizer selects option to create account on site.</li><li>2. System prompts user for name, email address, password</li><li>3. Organizer submits this information</li><li>4. System send confirmation email and redirects Organizer to confirmation page.</li><li>5. Organizer gets code from confirmation email and submits on confirmation page.</li><li>6. System redirects Organizer to management site main page.</li></ol>
<b>Postconditions:</b>	Organizer is on the site and logged into their new account

Login	
<b>Identifier:</b>	BE2
<b>Description:</b>	The Login use case models an Organizer logging into the system
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Organizer already has an account with the system, is on site root page.
<b>Flow of Events:</b>	<ol style="list-style-type: none"><li>1. Organizer enters username and password</li><li>2. If Organizer entered a valid username and password pair:<ol style="list-style-type: none"><li>2.1. System displays Organizer's home page</li></ol></li><li>Else:<ol style="list-style-type: none"><li>2.1. System displays "invalid username and/or password" message</li></ol></li></ol>



	2.2. Organizer repeats step 1
<b>Postconditions:</b>	Organizer is logged in and has access to their conventions

<b>CreateConvention</b>	
<b>Identifier:</b>	BE3
<b>Description:</b>	Organizer creates and initializes a new convention.
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Organizer created account and logged in, is on home page.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Organizer begins "Create a Convention".</li> <li>2. Organizer can fill in name, dates, and description. <ol style="list-style-type: none"> <li>a. System will prompt Organizer again if name or date is left blank.</li> <li>b. System will prompt Organizer again if name has been used by another convention.</li> </ol> </li> <li>3. System tells Organizer information can be changed later</li> <li>4. Organizer confirms entries.</li> <li>5. System notifies Organizer that convention has been created.</li> </ol>
<b>Postconditions:</b>	Organizer has a new convention associated with their account.

<b>AddOrganizerToConvention</b>	
<b>Identifier:</b>	BE4
<b>Description:</b>	Organizer requests to be added to a convention run by Administrator.
<b>Actors:</b>	Organizer, Administrator
<b>Preconditions:</b>	Both actors have site accounts and are logged in, viewing home page.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. From main page, Organizer chooses option to add self to an event.</li> <li>2. Organizer searches for their event and sends a request to be added.</li> </ol>

	<ol style="list-style-type: none"> <li>3. Administrator received this request and chooses whether to add Organizer.</li> <li>4. If Administrator chooses to add Organizer <ol style="list-style-type: none"> <li>4.1. Organizer now has Organizer privileges for this event.</li> <li>Else</li> <li>4.2. Organizer is not granted access to event.</li> </ol> </li> </ol>
<b>Postconditions:</b>	Organizer is added to event if Administrator chooses to do so.

<b>ManageConventionDetails</b>	
<b>Identifier:</b>	BE5
<b>Description:</b>	The Manage Convention Details use case models a back-end user editing of details for a Convention they host.
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Organizer is logged into the system & viewing their Convention's page.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Organizer selects option to manage their Convention Details.</li> <li>2. System displays current Convention Details and prompts for editing</li> <li>3. Organizer adds a list of room names to their Convention.</li> <li>4. System displays updated Details.</li> </ol> <p>Repeat steps 3 and 4 for adding lists of hosts and tags to the Convention.</p>
<b>Postconditions:</b>	Organizer's listed Convention details now include the added Details.

<b>AddEvent</b>	
<b>Identifier:</b>	BE6
<b>Description:</b>	Organizer adds Events to their Convention
<b>Actors:</b>	Organizer

<b>Preconditions:</b>	Organizer is logged into the system & viewing their Convention's page.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Organizer selects an option to add Events to their Convention.</li> <li>2. Organizer enters Event details: name, host, preferred date &amp; time, preferred location, description, tags</li> <li>3. If the Event is unique: <ol style="list-style-type: none"> <li>3.1. System notifies the Organizer that the Event has been added.</li> </ol> </li> <li>Else <ol style="list-style-type: none"> <li>3.2 System notifies the Organizer that the Event already exists within their Convention.</li> </ol> </li> </ol>
<b>Postconditions:</b>	Organizer is notified that their event has/has not been added to their Convention.

<b>UploadDocument</b>	
<b>Identifier:</b>	BE7
<b>Description:</b>	Organizer uploads document to event through management site.
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Organizer is logged in and on a convention's page
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Organizer navigates to the documents page, where existing documents can be seen.</li> <li>2. Organizer selects option to upload document.</li> <li>3. System displays prompt for file's display name, description, and location on Organizer's computer.</li> <li>4. Organizer provides this information and selects the file.</li> <li>5. System notifies Organizer that document has been stored.</li> </ol>
<b>Postconditions:</b>	Document is viewable as a part of its corresponding event.

<b>EditConventionAssets</b>	
<b>Identifier:</b>	BE8

<b>Description:</b>	Organizer removes assets from their Convention.
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Organizer is logged into the system & viewing their Convention page.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Organizer selects an option to view all current Convention Assets.</li> <li>2. System displays current Convention Assets: all Details, Documents, Schedule, and Events.</li> <li>3. Organizer selects an option to allow editing of the Assets.</li> <li>4. Organizer selects an option to remove a specific Asset from their Convention. <ol style="list-style-type: none"> <li>4.1a. If the Asset removed is an Event used in the current Schedule, System displays a notification that the Schedule is now out-of-date.</li> <li>4.1b. If Assets are removed during the listed Convention date &amp; time, System notifies Attendees of the changes made.</li> </ol> </li> <li>1. System displays updated Convention Assets.</li> </ol>
<b>Postconditions:</b>	System now displays updated Convention Assets.

<b>GenerateSchedule</b>	
<b>Identifier:</b>	BE9
<b>Description:</b>	The GenerateSchedule use case models a Organizer choosing a schedule for an input list of events
<b>Actors:</b>	Organizer, Time, Attendee
<b>Preconditions:</b>	Organizer has logged in via the LogIn use case, has access to edit a convention, is viewing that convention's page
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Organizer selects "Scheduler" tab on convention's page</li> <li>2. System displays "Scheduler" page</li> <li>3. Organizer selects "Generate Schedules" button</li> <li>4. If convention's Events list (created with AddEvent use case) contains more than 0 events: <ol style="list-style-type: none"> <li>4.1. If all events from Events list can be made into a schedule with no overlaps:</li> </ol> </li> </ol>

	<p>4.1.1. System displays up to 5 possible schedules</p> <p>4.1.2. Organizer selects desired schedule</p> <p>Else:</p> <p>4.1.1. System displays up to 5 schedules with the fewest number of events missing</p> <p>4.1.2. Organizer selects desired schedule</p> <p>4.1.3. System displays message that lists excluded event(s) and tells Organizer to schedule the event(s) manually from the convention details page (via ViewConvention use case)</p> <p>Else:</p> <p>*4.1. System displays message that there are no events to schedule</p> <p>1. If Time is between start and end of the convention, system sends a notification for each modified event, viewable by Attendees</p>
<b>Postconditions:</b>	System displays message that the convention's schedule has been updated (*unless asterisked step occurs)

<b>AttendConvention</b>	
<b>Identifier:</b>	FE1
<b>Description:</b>	Attendee downloads and begins tracking convention details.
<b>Actors:</b>	Attendee
<b>Preconditions:</b>	Attendee is on search page, found convention through search function in the mobile application. Organizer has created a convention (CreateConvention) matching search criteria.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>Attendee selects convention from search results.</li> <li>System shows Attendee details of selected convention. <ol style="list-style-type: none"> <li>If Attendee finds a convention they were not looking for, Attendee must search again.</li> </ol> </li> <li>Attendee elects to receive convention information.</li> <li>System shows home page of convention.</li> </ol>

<b>Postconditions:</b>	Attendee can now access convention information and updates.
------------------------	---

<b>AddToPersonalSchedule</b>	
<b>Identifier:</b>	FE2
<b>Description:</b>	The AddToPersonalSchedule use case models an Attendee adding an event from the convention schedule to their personal schedule
<b>Actors:</b>	Organizer
<b>Preconditions:</b>	Attendee has selected a convention to view via AttendConvention use case, is on convention page in the mobile application
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>1. Attendee selects “Schedule” tab for convention</li> <li>2. System displays convention schedule with events sorted by time</li> <li>3. Option 1: <ol style="list-style-type: none"> <li>3.1. Attendee selects “add event” option next to desired event</li> </ol> </li> <li>Option 2: <ol style="list-style-type: none"> <li>3.1. Attendee selects event to view in detail</li> <li>3.2. System displays page with detailed information on selected event</li> <li>3.3. Attendee selects “add event” option on detailed event page</li> </ol> </li> </ol>
<b>Postconditions:</b>	System displays message that event has been added to Attendee’s personal schedule

<b>ViewPersonalSchedule</b>	
<b>Identifier:</b>	FE3
<b>Description:</b>	Attendee views schedule of tracked events.
<b>Actors:</b>	Attendee

<b>Preconditions:</b>	Attendee has completed the AttendConvention use case, is on home page in the mobile application.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>Attendee selects "View Personal Schedule".</li> <li>System shows Attendee list of events they have flagged. <ol style="list-style-type: none"> <li>System shows Attendee any events that are conflicting.</li> <li>Attendee removes event from their schedule.</li> <li>Attendee sets how long before the event they want to be notified.</li> <li>System shows empty list if Attendee flagged nothing.</li> </ol> </li> <li>Attendee leaves personal schedule.</li> </ol>
<b>Postconditions:</b>	Attendee has seen and/or modified their personal schedule.

<b>ViewDocuments</b>	
<b>Identifier:</b>	FE4
<b>Description:</b>	Attendee looks at convention documents.
<b>Actors:</b>	Attendee
<b>Preconditions:</b>	Attendee is on a convention's page in the mobile application.
<b>Flow of Events:</b>	<ol style="list-style-type: none"> <li>Attendee selects the option to view documents.</li> <li>System presents list of documents added to selected convention.</li> <li>Attendee chooses from among these options.</li> <li>System loads document and displays to the Attendee.</li> </ol>
<b>Postconditions:</b>	Document now appears on the Attendee's screen.

## WORK BREAKDOWN STRUCTURE

- CreateUserAccount
  - Create base page for Create Account
  - Add button to home page to link to Create Account page.
  - The Create Account page will have fields for username, email, password, and password confirmation.
  - Add a submit button that runs a submit routine.

- Check if the information is valid (unique username and email, passwords match, password fits our specifications).
  - Store account and send activation code.
  - We need a confirmation page with a form to input the activation code.
- **LogIn**
  - Add two fields to the home page for username and password.
  - Check that the combination matches, then redirect to management page if it does.
- **CreateConvention**
  - Add a link to the CreateConvention page from the management page.
  - Add text forms for the convention name and description as well as date/time pickers for start and end time.
  - Create button that runs a few checks.
    - It checks for a unique name.
    - It checks that start time is before end time.
    - It checks that something has been input for name and times
  - If these checks pass, user will get a notification telling them these can be changed.
  - Redirect the user to the management page.
- **AddOrganizerToConvention**
  - Provide a search function for conventions specifically to add yourself to a convention.
  - Next time the creator of a convention logs in, they should get a notification (to be implemented) to add the user to a convention.
  - The requesting user will be notified themselves on the decision.
  - If accepted, the convention will appear in the requesting user's management page.
- **ManageConventionDetails**
  - User selects the convention from their list of conventions.
  - The manage convention page will include 3 tabs for rooms, hosts, and tags.
  - Each tab will display a list of elements that can be added to, removed from, or edited.
- **AddEvent**
  - We include another tab in the manage convention page to manage events.
  - There will be a button to add a new event. We will provide a page to create an event.
  - The add event page will have fields to add name, select host, select preferred times and locations, and add a description.
  - Check that the event is unique and add it to the event list if it is.
- **UploadDocument**
  - Provide a page to view the convention documents as well as a button to add new ones.
  - Open a file browser so that the user can add a file to the convention.



- Store the uploaded file to the server.
- EditConventionAssets
  - Provide a convention overview to view all assets (documents, schedule, events).
  - Allow the deletion of any asset.
  - If the asset removed is an event that is in the schedule, push a notification to all mobile clients that the schedule has changed.
- GenerateSchedule
  - Create a page and link for the scheduler.
  - Develop a constraint satisfaction algorithm that will try to include as many events as possible.
  - Display the top 5 most conforming schedules to the user.
    - Display the fact that the schedules exclude some events, if that is true
  - Add a way for the user to add one of the schedules to the convention's assets.
- SendNotification
  - Create a page for sending notifications to subscribers
  - The page will have fields for title, details, and urgency
  - Push the notification to all subscribers
- AttendConvention
  - Allow the mobile app to send a query for list of databases matching a regex
  - List the top X results of search
  - Add a next button to get the next X results
  - Add an attend button, which will send all of the conventions information to the user device.
- AddToPersonalSchedule
  - In the view event page, include a button to flag an event.
  - The event is flagged as being part of the user's personal schedule
- ViewPersonalSchedule
  - Add a page for a user to view their flagged events.
  - Display a schedule containing only flagged events.
  - Highlight any events that overlap with another on the personal schedule.
  - Add button to unflag an event.
  - Add an alarm when an event is X minutes from starting.
- ViewNotifications
  - Add a page for notifications
  - Show the X most recent notifications.
  - If any notifications are new, highlight them.
  - When the user leaves this page, mark all notifications as read.
- ViewDocuments
  - Add a page to see all the convention documents.
  - Allow the system to choose how to open a specific document.
- Documentation: Stakeholder Review 1
  - List all class present responsibilities and relationships
  - Create CRC cards, Static Class Diagrams

- Create sequence diagrams for two written Use Cases
- Write out design approach
- Write contribution summary & status report summary
- First Demo: Stakeholder Review 1
  - Compare current functionality against promised functionality in the schedule
    - (required) Back-End: functional “musts” (see Supplemental Specifications)
    - (required) Front-End: templated UI
    - (required) Product name
  - Supplement functionality (see above work breakdown) where needed
- Documentation: Stakeholder Review 2
  - Review source code and add comments for clarity where needed
  - Write testing documentation
  - Write contribution summary and status report
  - Write code review documentation (from stakeholder 1)
- Working Beta Release: Stakeholder Review 2
  - Compare current functionality against promised functionality in the schedule
    - (required) Front & Back End connected and functional
    - (required) Front-End: Support Personal Schedule Creation
    - (required) Back-End: Login functionality present
  - Supplement functionality (see above work breakdown) where needed
  - Write contribution summary & status report
- Transition release & documentation
  - Compare functionality against documented use cases and supplemental specifications
  - Test functionality
  - Deploy a downloadable, installable version of the software
  - Write installation/user instructions
  - Write a summary of the test results for the software
  - Write contribution summary & status report

## UPDATED SCHEDULE

Each iteration is one week long, starting on Thursdays.

### Color Key

Blue - Documentation Requirements

Red - Class Schedule Deadlines

Green - Use Case/Feature Iterations

Start of Week (Thurs)	Deliverables
--------------------------	--------------

10/15*	<p><b>Beginning of Construction (10/13)</b></p> <ul style="list-style-type: none"> <li>● Back End - Establish working code base/structure</li> <li>● Back End - Template forms for input</li> <li>● Back End - Written plan for how to implement schedule generator</li> </ul>
10/22	<ul style="list-style-type: none"> <li>● Back End - Functional forms to create a Convention, add Convention Details (rooms, hosts)</li> <li>● Back End - Functional pages to view all conventions, view specific convention &amp; its assets, remove assets</li> <li>● Back End - Form to create Events</li> </ul>
10/29	<ul style="list-style-type: none"> <li>● Back End - View &amp; edit specific events from convention view page</li> <li>● Back End - Implement Scheduler (pulls from Events list)</li> <li>● Front End - UI with template pages (home page, view convention)</li> <li>● Front End - template pages for view event list tab, view specific event detail</li> </ul>
11/5	<ul style="list-style-type: none"> <li>● Stakeholder review #1 (due 11/5) <ul style="list-style-type: none"> <li>○ Back End - all “musts” functional; can create convention, create &amp; schedule events through constraint satisfaction</li> <li>○ Front End - Templates for UI</li> <li>○ Name for product</li> </ul> </li> <li>● Set up server and database, connect front end and back end</li> </ul>
11/12	<ul style="list-style-type: none"> <li>● Back End - User account creation, log-in, convention search &amp; add</li> <li>● Front End - Convention search &amp; add</li> <li>● Front End - Event List &amp; Details pulled from database, accessible from Convention pages</li> <li>● Front End - Tab for personal schedule, add events from convention’s event list or event detail page</li> </ul>
11/19	<p><b>Beginning of Transition (11/23)</b></p> <ul style="list-style-type: none"> <li>● Stakeholder review #2 (due 11/23) <ul style="list-style-type: none"> <li>○ Front end and back end connected and functional (create a convention / schedule that can be edited from back end, viewed from front end)</li> <li>○ Front End - support Personal Schedule creation</li> <li>○ Back End - Login functionality</li> </ul> </li> <li>● Back End - add, view &amp; remove documents (done by 11/23)</li> <li>● Front End - view documents from back end (done by 11/23)</li> <li>● Back End - add event tags</li> </ul>

	<ul style="list-style-type: none"> <li>● Front End - filter &amp; sort event list (time, name, tags)</li> </ul>
11/26	<ul style="list-style-type: none"> <li>● Back/Front End - send/receive notification info <ul style="list-style-type: none"> <li>○ triggered by schedule change &amp; direct notification input from organizer</li> </ul> </li> <li>● Front End - notifications tab added to homepage</li> </ul>
12/3	<ul style="list-style-type: none"> <li>● Polish UI, final testing</li> </ul>
12/10	<ul style="list-style-type: none"> <li>● Done with everything! (final release &amp; final test results)</li> </ul>

## CONTRIBUTION SUMMARY

Maggie Borkowski made a domain model, wrote a fourth of the use cases, finalized the updated schedule, and wrote the contribution summary. Rachel King finalized the supplemental specifications, wrote a fourth of the use cases, and wrote the status report and the glossary. Michael Mortimer made a domain model and a deployment diagram and wrote a fourth of the use cases. Kyle Samson wrote a fourth of the use cases and finalized the work breakdown structure. Everyone discussed and drafted all of the material as a group.

## STATUS REPORT

Since the ending of the Inception phase of project development, we have made significant steps in its planning and general Elaboration. We've planned out a functional UI for all attributes of the project, and developed a vocabulary for use in articulating various specifications and product functionality. Additionally, we've written out use cases, planned database schema, created deployment diagrams, prioritized and pruned deliverables, articulated requirements and specifications, and established a work breakdown structure. Many of these items are viewable in this document.

We have also made steps independently to research and play around with languages and tools involved with our project, though not to the depth that the implementation will require. As such, a persistent risk throughout this phase has been that of our own familiarity with our development tools. Another risk that developed over the course of the Elaboration phase was scope creep; we found ourselves with a growing number of specifications that threatened to overwhelm the project's completion by the end of the semester. This was mitigated through the completion of the Elaboration phase itself, in the process of prioritizing and editing project deliverables for use cases.

In a broad sense, what follows next is the actual Implementation of the project itself. We have prioritized deliverables and requirements and segmented them into a schedule that we will follow, week by week. By the first Stakeholder Review, we plan to have a system that allows for the creation of Conventions with all of their given Attributes, as well as a program launchable from a mobile device that contains functional template pages for the display of information. By

the second, we plan to have information displayed on the mobile device program that has been pulled from our back-end web application. We also plan to have the mobile device program support the creation of an Attendee's Personal Schedule, and to support user account/login functionality for our web application. For our first Construction iteration we plan to establish a working base code for the web application and develop template forms to receive input from a user. We also plan to write out a solution for the Schedule Generator implementation problem.

## GLOSSARY

**Attendee** - A person attending a given Convention; the Front-End user.

**Back-End** - A segmentation of the project/product that encompasses the features accessed directly by Organizers. The Back-End segment manifests as a program that is hosted through a website. It allows an Organizer to create and organize a Convention, giving it Details and Attributes to provide to the Attendee.

**Convention** - A large, organized, and scheduled collection of Events hosted by an Organizer

**Event** - A small panel, talk or demonstration that occurs during a Convention.

**Convention Asset** - All combined, collective attributes of a Convention. Includes a Schedule, Events, and any Documents provided by the Organizer.

**Convention Detail** - Some defined attributes of a Convention, to be used elsewhere in scheduling and organization via this program. Convention Details include: Rooms, Event Hosts, and Event Tags.

**Documents** - Miscellaneous images and files that an Organizer may want to include in their Convention materials. For example, a map of the Convention space.

**Front-End** - A segmentation of the project/product that encompasses the features accessed directly by Attendees. The Front-End segment manifests as a program that runs on a mobile device. It allows an Attendee to "attend" a Convention and view its Schedule, a list of Events, and any Documents provided by the organizer.

**Organizer** - A person organizing a given Convention; the Back-End user.

**Schedule** - A collection of Events occurring at a given Convention, organized by Room and Time.

**Schedule Generator** - Application in the Back-End portion of this product that takes as input all Events provided by the Organizer, as well as Convention Details, and composes them into a Schedule.