Bethe OPS Project

Requirements

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1 Overview

The purpose of this document is to outline the requirements understood and agreed on by both the team and the client for the first version of the Bethe OPS system developed during the semester of Spring 2019. The requirements listed for each component of the system should be implemented in version one of Bethe OPS. Requirements with "(**NOT IMPLEMENTED**)" were not deemed mandatory for the first version, but were part of the original set of requirements and are desired in future versions of Bethe OPS.

2 User Interface

A user interface is necessary for users to carry out important functions, such as signing up for events. The user interface supports three types of users: students, event leaders, and admins. Requirements for each type of user are discussed in sections 2.1 to 2.3. The requirements of the user interface in general are as follows:

- Displays the upcoming events
- Displays a featured event on the landing page
    - If no feature event has been selected, the default featured event is the next upcoming event
- Allows students to sign up for events via a form that includes fields for the student's:
    - First name
    - Last name
    - Net ID
    - Place of residence (i.e., building name)
    - Contact phone
    - Comments
- Provides a profile for each event that contains information pertaining to the event, including:
    - Event name
    - Event leader(s)
    - Event leader's email or emails if multiple event leaders
    - Event date
    - Event location
    - Event time (start and end)
    - Event description
    - Event attendees list

    - Waitlist
    - Links or other details
- User-friendly (i.e., easy to navigate, appropriate yet concise amount of information)
- Responsive on any mobile device or desktop

2.1 Student

Required features and functions for a student user are as follows:

- Sign up as a user and create a profile on the system
- Edit his/her user profile
- Browse events
- View events (s)he has signed up for (**NOT IMPLEMENTED**)
- Sign up for events
- Remove him/herself from events (s)he is signed up for

2.2 Event Leader

Required features and functions for an event leader user include those required for student users as well as the following:

- Create events
- Edit events
- Remove events
- Add/remove event attendees
- Add/remove student users

2.3 Admin

Required features and functions for an admin user include those required for student users and event leader users, as well as the following:

- Add/remove all types of users (students, event leaders, and admins)
- Download event data from the database (**NOT IMPLEMENTED**)

3 Waitlist

In the common case all spots for an event are filled up, a waitlist must be available for interested students to join. The requirements for the waitlist component are as follows:

- Updates automatically to remove the person at the top of the waitlist when a spot on the event roster opens up (i.e., when someone on the event roster removes his/her name)

4 Email Notifications

The system should automatically send email notifications to event leaders and participants via email in various scenarios. The required email notifications are as follows:

- Sign-up confirmation
- Removal from the waitlist and placement on the event attendees list
- Removal from the event attendees list
- Event reminders
    - One day before the event
    - Two hours before the event
    - Event leader(s) for the event must be Cc'd

5 Login Authentication

The system needs to support various types of users and levels of authentication. The requirements for the login system are as follows:

- Integrates Cornell's login authentication system, CUWebLogin, such that users can login with their Cornell net IDs and passwords
- Detailed, step-by-step instructions on how to implement login authentication using the technologies and frameworks used by the Spring 2019 team to implement login authentication

6 Hosting

Local development is allowed until the domain name for Bethe OPS has been confirmed and, thus, hosting is set up. The requirements for hosting the system are as follows:

- Supports the languages, technologies, and protocols used to implement the client and server side of the system
- Lives in some third-party hosting application or in a server provided by Cornell if any are available

7 Database

A database needs to be integrated into the system to store and archive data or information on the events posted. The requirements for a database are as follows:

- Stores all information regarding each event:

    - Users
    - Event information (name, date, time, location, leader, etc.)
    - Sign-ups
    - Waitlist
- Allows admins to download data stored within the database (**NOT IMPLEMENTED**)
- Archives the information by semester (**NOT IMPLEMENTED**)

8 Maintenance and Support

Given the Spring 2019 team only developed the system within a semester, the system needs to be maintained once it is out of the team's hands. The requirements for maintaining the system and providing additional resources/support are as follows:

- Be maintainable by the client as well as other developers that may continue building on the system in the future
    - Support from SSIT is ideal for the client since the client typically resorts to CIT or SSIT for technical assistance
- Provide design documentation on the designs of the user interface, system, and programs detailing how each respective component was architected and implemented
- Comment source code with appropriately detailed specifications to clearly convey what each function does
- Provide project documentation with detailed, step-by-step instructions for users on how to perform certain functions on the web application
- Provide project documentation with detailed explanations describing each file (what functionality the file encompasses), as well as step-by-step instructions detailing how to implement specific components of the system, that the client and future developers can reference