

Luke Penney and Caleb Veth  
Software Development  
Dr. Kim  
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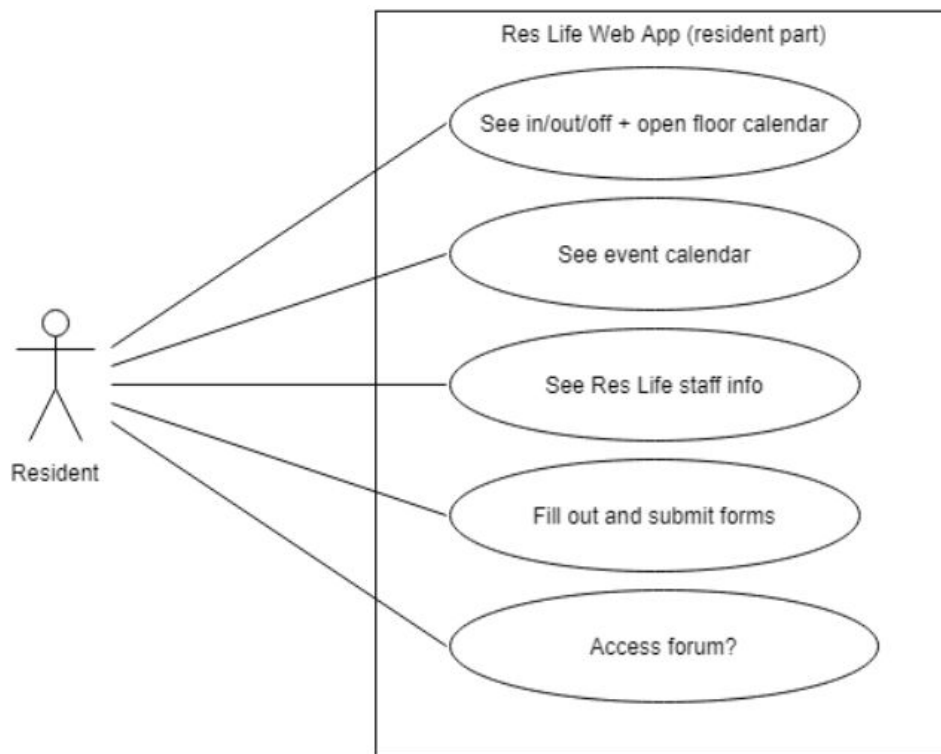
## **RA Application - User Group Proposal**

### ***I. User Requirements***

- A.** See the In/Out/Off schedules of the RAs in their dorm and open floor schedule
  - 1.** This would be publicly available information; Each dorm will have its own unique schedule
- B.** See the floor and dorm events schedule
  - 1.** Everyone within a dorm would see the same schedule, just with different events based on what is visible to them based on their access level - the base schedule will be public events from the user's dorm, along with personal events appended to the top of that (we may possibly implement color-coding to distinguish between the different categories)
    - a) Floor: Some events, like raids, will only show up for the relevant floor. The RD/GRA/ARD users will be able to see all of these.
    - b) Dorm/public: Events that show up on everyone's schedules.
    - c) Person-specific or position-specific: The Res Life staff may want to make events that only they can see; this would be the category for that
  - 2.** Each dorm would have a different base schedule (public) that could be accessed by everyone signed up for our service
  - 3.** We may set up the calendar so a short description can be included with events - it would show up as mouseover or on another page when the event was clicked on
- C.** Information about residence life staff (phone numbers, email addresses, on duty schedules, etc.)
  - 1.** Access to contact information for respective RA, as well as relevant upper level staff for the dormitory in which a student resides
  - 2.** Access to upper level staff schedules
    - a) Allows for greater interaction between these staff members who can better connect with students they are serving, which has been a struggle for some who have had difficulty broadcasting their "in-night" times and general availability
  - 3.** Access to fine information, emergency on call numbers, information concerning laundry hours, etc.
- D.** Forms and submission: Students will be able to submit forms which are currently filled out and stored on paper

1. Sign in forms - information about state of the room, logging of any defections so as not to be held liable for them later
    - a) Defections can be verified by submitting pictures
  2. DSG (and other small groups) sign-up registration forms
  3. RA Evaluation forms
  4. Submitting work orders: If a piece of equipment or furniture is broken in the dorms, students will be able to ask an authority to send someone to fix it.
    - a) Submit a form which notifies appropriate upper level staff as well as the RA about an issue with the condition of the room.
    - b) Allows for pictures to support the existence of a problem and to give people an idea of what exactly needs to be fixed
      - (1) i.e. the state of a leak on the bathroom floor (area affected, condition, etc.)
- E. An online forum for all residents. This is part is optional; we will implement it if we have time

**-USE CASE DIAGRAM-**



## ***II. System Requirements***

### **A. In/Out/Off Schedules**

1. The system shall present a list of available RAs via their open-floor times in monthly calendar format, allowing users to toggle between months as needed
2. The system shall identify each student's access level for a particular schedule
3. The system shall refresh the schedules whenever administrative changes are made

### **B. Floor and Dorm Schedule**

1. The system will grant RA access to the management system of a specific floor that allows them to communicate with their respective residents
2. The system will allow the RA to manage resident lists and access levels
3. The system will give RAs the ability to add/edit/delete members of his or her actively managed floor group
4. The system, if a user has opted in for the service, will send automatic push notifications concerning specific floor events and important RA announcements

### **C. Information about residence life staff**

1. The system will automatically determine, based on the student's access level, the contact information available to him or her when accessed on the information page
2. The system will allow the RD super access to grant permissions and control independent access levels of other residence life staff using a management access control list

### **D. Submitting forms**

1. The system will efficiently store and compress data as necessary to anticipate large volumes of digital storage
2. The system will both log and alert proper administration/maintenance concerning timeout issues and other potential page errors which occur during the submission process
3. The system will take 3 seconds or less to transition after submissions via the web forms

### **E. Online forum for Res Life Staff**

1. The system will sort forum posts in descending order, pushing the most recent posts to the top of user news feeds
2. The system will implement a many-to-one database strategy to allow for unlimited comments on any individual post

3. The system will automatically update to account for real-time comments on postback calls
4. The system will disable comments to posts flagged as floor “public service announcements,” allowing for objective updates to be processed without additional comments and opinionated responses

### ***III. Non-Functional/Domain Requirements***

- A. Allows RAs and upper level staff to communicate efficiently, support one another, and encourage each other as they handle their respective responsibilities.
- B. Utilize MySQL/MongoDB as database of choice to store individuals’ information as well as various uploaded files
- C. Logical system of security levels that allows for quick and efficient access to information based on user type (resident, RA, upper res life staff, etc.)
- D. A development environment will be utilized that streamlines the development process and allows for easy testing and deployment (possibly ASP.Net)
- E. The application will be dynamic and responsive, ensuring that it works well for both computer and mobile users
- F. The application will serve as a more usable and accessible replacement for the systems that are currently in place
- G. The application will not reduce the security of the college’s network
  1. Most likely will be accessible only from inside the network, and will probably have specific user accounts
- H. The application will be flexible enough that all Wheaton College dorms (and maybe all housing) can use it
- I. Application Implementation: a web application; Developed using a subset of HTML/CSS/JS, PHP or Node.js, ASP.Net, and MySQL or MongoDB