

CSCI 4448 Project Part 2

Team: Aubree Lytwyn
Shane Sarnac
Jason Hill
Eric Thompson

Title:
Revamp Reslife

Project Summary:

We want to create an integrated front-desk management system to meet all the needs of personnel in CU's Residence Life. All four group members are current or former RAs, so we collectively have a great deal of experience with the needs and desires of people who use this system. The functions of the front desk are currently accomplished by a number of poorly integrated systems that are difficult to train new staff members to use, slow, redundant, and create the possibility for frequent mistakes. Our system will use a few basic objects with minimal functionality. As time permits, we will extend this system by creating new objects, methods, and interfaces to accomplish more of our functionality wish list.

Project Requirements:

| Business Requirements | | | | |
|-----------------------|--|----------------|----------------|----------|
| ID | Requirement | Topic Area | Actor | Priority |
| BR-001 | All login userids must be the user's student identikey. | Authentication | CA/RA/Resident | Low |
| BR-002 | All login user passwords must be the user's student identikey password | Authentication | CA/RA/Resident | Low |
| BR-003 | User must be signed in to create or request a temp key | Authentication | CA/RA/Resident | Medium |
| BR-005 | Item Checkouts must be done only at the Front Desk computer | Security | CA/RA | Medium |
| BR-006 | Temporary Key | Security | CA/RA | Medium |

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| | Requests must only be handled at Front Desk computer | | | |
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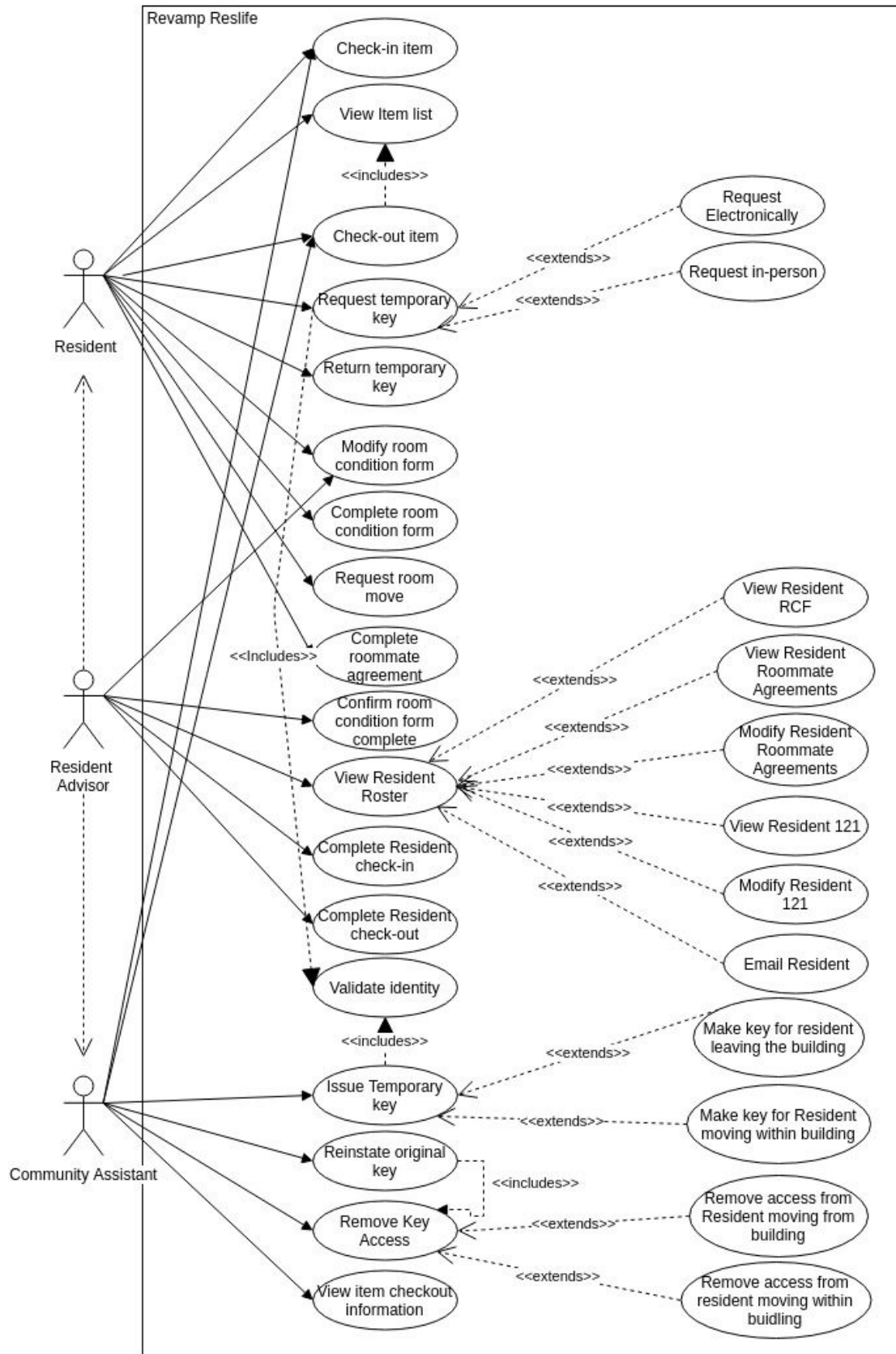
| User Requirements | | |
|-------------------|---|----------|
| ID | Description | Priority |
| USR-001 | As an RA, I must be able to modify the Room Condition Forms for any room. | Medium |
| USR-002 | As an RA, I must be able to confirm that the Room Condition Forms are complete | Medium |
| USR-003 | As an RA, I want to view the Room Condition Forms completed by the resident. | Medium |
| USR-004 | As an RA, I want to view my residents' roommate agreements | Medium |
| USR-005 | As an RA, I want to be able to modify my residents' roommate agreements | Low |
| USR-006 | As an RA, I would like to modify resident 121's. | Medium |
| USR-007 | As an RA, I would like to view the status of my residents' 121's | Medium |
| USR-008 | As an RA, I need to complete a resident's check-in upon moving to my floor. | High |
| USR-009 | As an RA, I must complete the checkout process when a resident leaves my floor. | High |
| USR-010 | As an RA, I would like to be able to email my residents. | Medium |
| USR-011 | As an RA, I would like to view a roster of all my residents | Medium |
| USR-012 | As a CA, I must be able to check out an item to a Resident | High |
| USR-013 | As a CA, I must be able to check in an item after a resident returns the item. | High |
| USR-014 | As a CA, I must be able to issue a temporary key to a resident. | High |

| | | |
|---------|--|--------|
| USR-015 | As a CA, I must be able to reinstate the original key once the temporary key is returned. | High |
| USR-016 | As a CA, I need to be able to make keys for residents moving into the building | Medium |
| USR-017 | As a CA, I need to be able to remove access from residents moving away from the building | Medium |
| USR-018 | As a CA, I need to be able to make a key for a resident moving between rooms within the building. | Medium |
| USR-019 | As a CA, I need to be able to remove access from a key once a resident has completed a move between rooms within the building. | Medium |
| USR-020 | As a Resident, I can view a list of items that I can check out from the Front Desk in my building | Low |
| USR-021 | As a Resident, I want to be able to request a temporary key to be made when I am not at the desk. | Low |
| USR-022 | As a Resident, I need to be able to request a temporary key to be made when I am at the front desk. | High |
| USR-023 | As a Resident, I need to be able to return a temporary key that I checked out. | High |
| USR-024 | As a Resident, I want to be able to request that an item at the front desk be checked out to me. | Medium |
| USR-025 | As a Resident, I want to be able to see what desk items I have checked out to me and when I must turn the item back in by. | Low |
| USR-026 | As a Resident, I need to be able to modify my Room Condition Form during my approved move-in period. | High |
| USR-027 | As a Resident, I need to submit my Room Condition Form when I have completed it | High |
| USR-028 | As a Resident, I need to be able to complete my Roommate Agreement when I have a roommate. | Medium |
| USR-029 | As a Resident, I would like to request a room move from my current room to a specific room type in a residence hall that I prefer. | Low |

| Non-Functional Requirements | | |
|-----------------------------|--|----------|
| ID | Description | Priority |
| NFR-001 | Reliability: There is sensitive user data on the system so we will have to take steps to secure our databases. | Medium |
| NFR-002 | Operation: The system will be hosted on premises on basic PC hardware. | Medium |
| NFR-003 | Usability: The RAs and CAs who interact with the system have limited training, so ease of operation is very important. | High |

| Functional Requirements | | |
|-------------------------|---|----------|
| ID | Description | Priority |
| FR-001 | Before resident checks into room they need to have filled out RCF. | High |
| FR-002 | The ability to push a button to begin common processes for CAs and RAs - intuitive to use to minimize training requirements. | Medium |
| FR-003 | Issue a temporary key to a resident | High |
| FR-004 | Confirm resident's identity prior to issuing a temporary key or checking out items | High |
| FR-005 | The system must log the time, date, resident information, and working CA information for each item as it is checked in and out. | High |
| FR-006 | The system must log the time, date, and resident information for each key transaction that occurs | High |
| FR-007 | The system should log the log-in activity of all users. | Low |

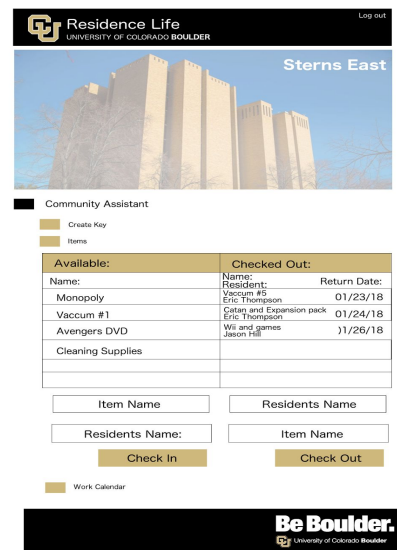
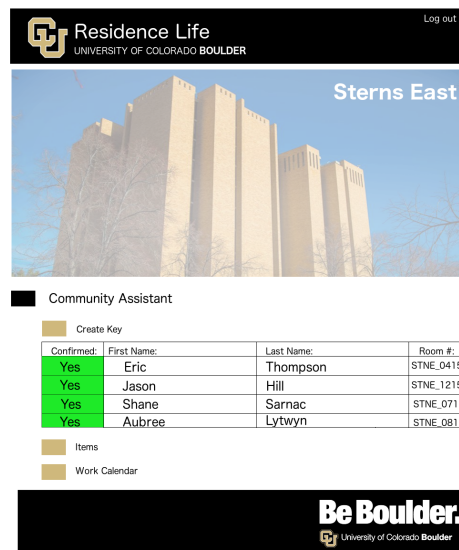
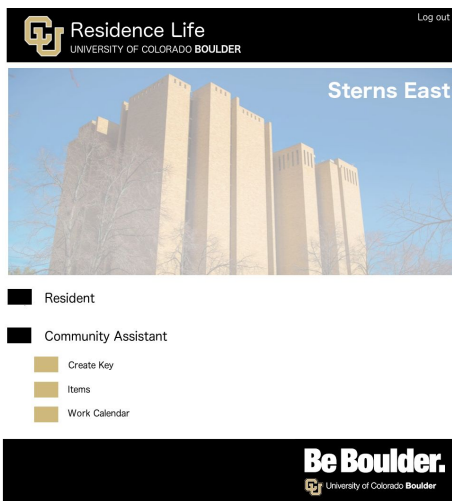
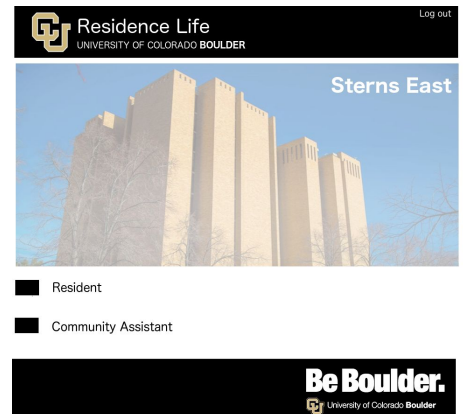
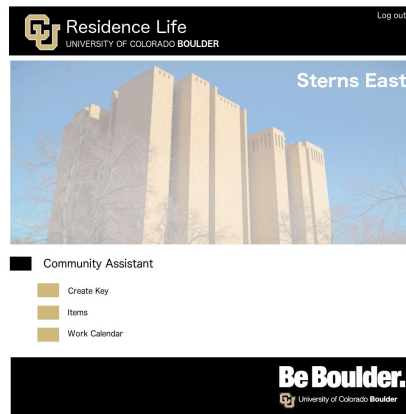
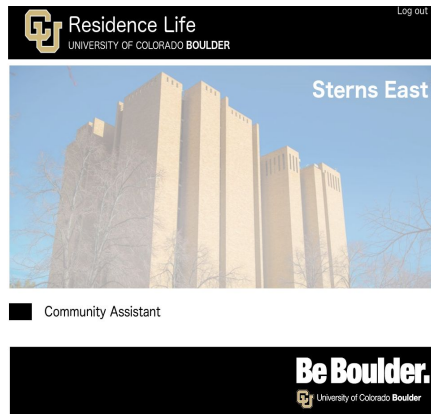
Use Cases:



UI Mockups:

Community Assistant (CA) Web Portal Views:

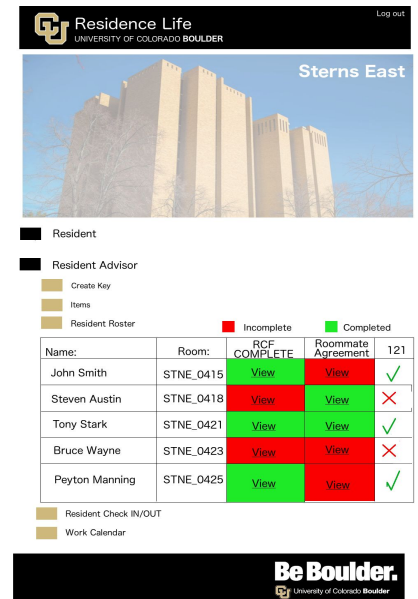
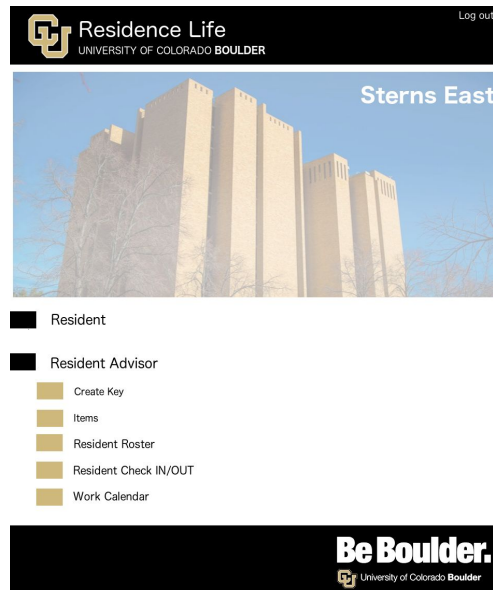
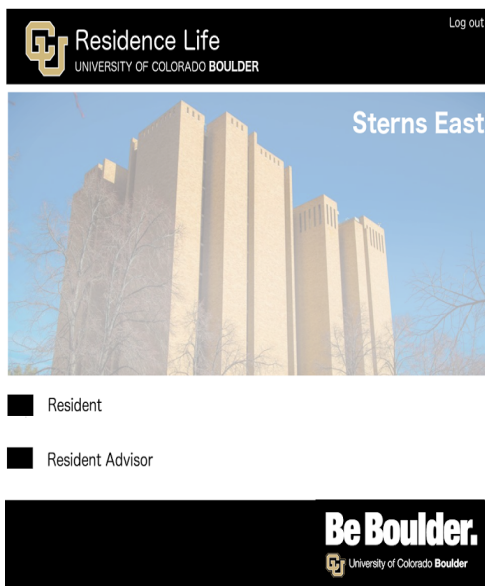
The CA views include views that show what would be seen by someone who was either a CA and a resident or a CA who was not a resident. We have a dropdown function for the CA tab that opens into an easy to read set of actions that a CA would need to use regularly including the ability to create a temp key, check out desk items, and view their work schedule.



*Note: See resident view to see that functionality

Resident Advisor (RA) View:

The resident advisor view will always include the resident tab due to the fact that RAs always live in the building. Under the RA tab are the same actions that a CA would have and also actions that are unique to the RA position. For our purposes we have included a resident check in/out tab and a resident roster. The resident roster will allow the RA to access room condition forms (RCFs) and roommate agreements for each of their residents.




*Note: See CA view and resident view to see their functionality

Resident View:

The resident view has four tabs including the RCF and roommate agreement, the ability to search for desk items, and the ability to check out a temp key.

Residence Life
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Log out

Sterns East

Resident

Items

| Available Front Desk Items: | Items checked out: | |
|-----------------------------|---|--------------|
| Name: | Name: | Return Date: |
| Pots and Pans | Vacuum #5 | 01/23/18 |
| Monopoly | Catan and expansion pack | 01/05/18 |
| Avengers DVD | Pots and Pans | 03/15/15 |
| Ping Pong Paddles | Monopoly | 04/21/14 |
| Pool Q's and balls | <div><div>Returned</div><div>Not Returned</div></div> | |
| Vacuum #1 | | |
| Cleaning Supplies | | |
| <div>Reserve Item</div> | | |

Request Temp Key

Room Condition Form


Roomate Agreement

Be Boulder.

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Log out

Sterns East

Resident

Items

Reuest Temp Key

Room Condition Form

Roommate Agreement

Roommate Agreement Complete

Your Completion

Roommate Completion

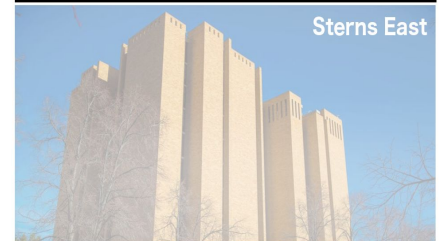
View Roomate Agreement

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Log out

Sterns East

Resident

Items

Reuest Temp Key

Room Condition Form

RCF Complete

View RCF

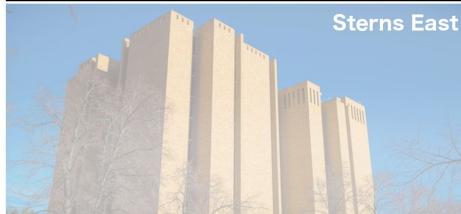
Roomate Agreement

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Residence Life
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Log out

Sterns East

Resident

Items

Reuest Temp Key

IdentKey:

Room #

Password:

Request Temp Key

Room Condition Form

Roomate Agreement

Be Boulder.

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Data Persistence:

We plan to use a MySQL database because it fits our needs very well, the entire team is familiar with it, and it is free. The primary objects that we intend to persist are student records, building records, and item records. This includes (but is not limited to) objects from our classes: Resident Profile, Resident Advisor, Building, Room, Desk Item, Buff One Card, and Temporary Key. We expect to see improvements in speed and memory requirements if we conduct certain transactions from a relational database.

Class Diagram:

