

CSCI 4448 Project Part 2

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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

	Requests must only be handled at Front Desk computer			
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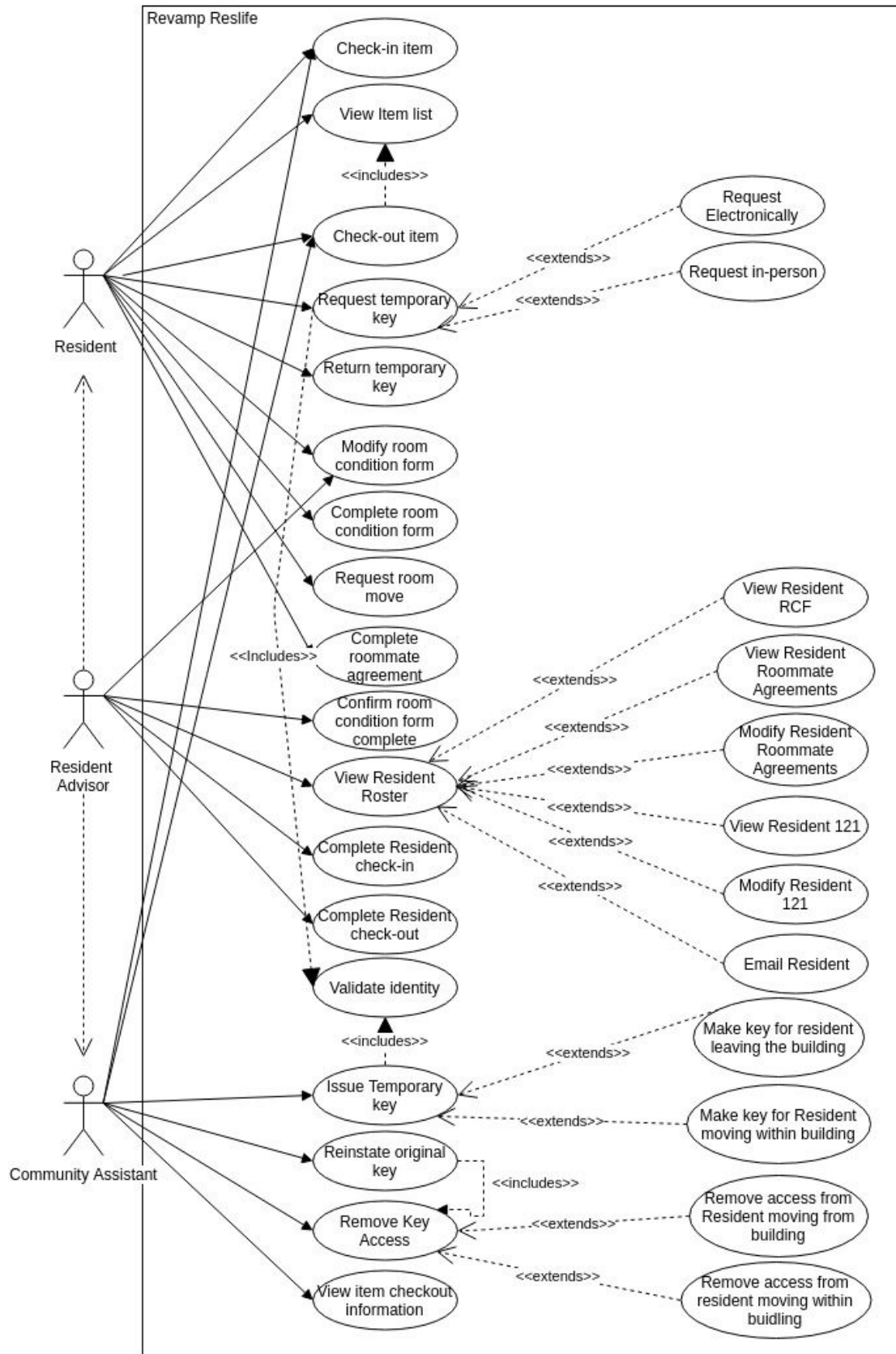
User Requirements		
ID	Description	Priority
USR-001	As an RA, I must be able to modify the Room Condition Forms for any room.	Medium
USR-002	As an RA, I must be able to confirm that the Room Condition Forms are complete	Medium
USR-003	As an RA, I want to view the Room Condition Forms completed by the 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

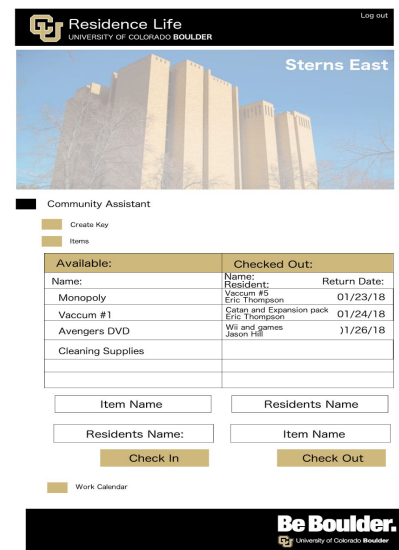
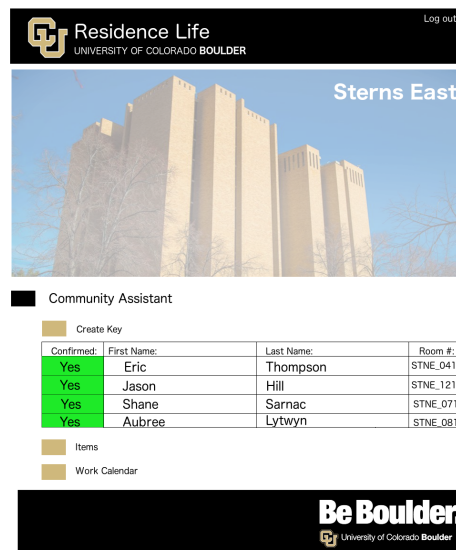
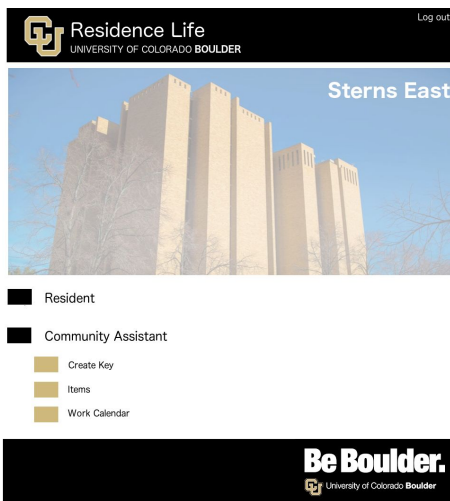
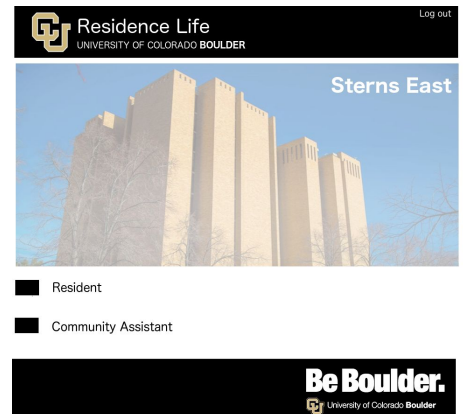
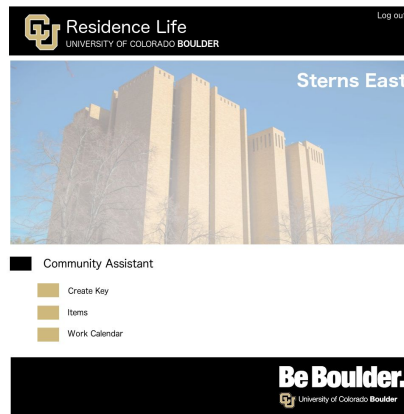
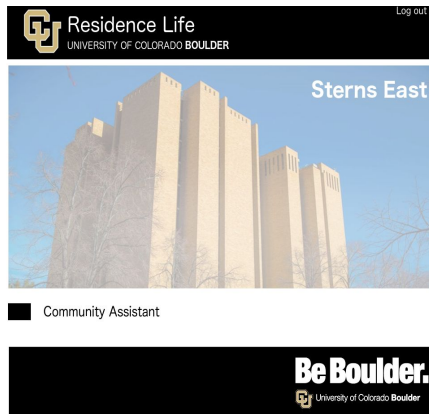
Use Cases:



UI Mockups:

Community Assistant (CA) Web Portal Views:

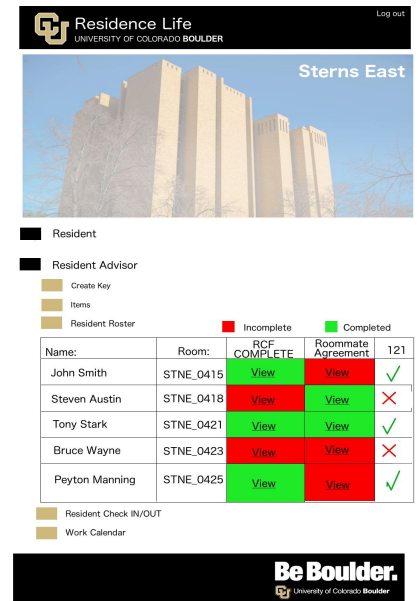
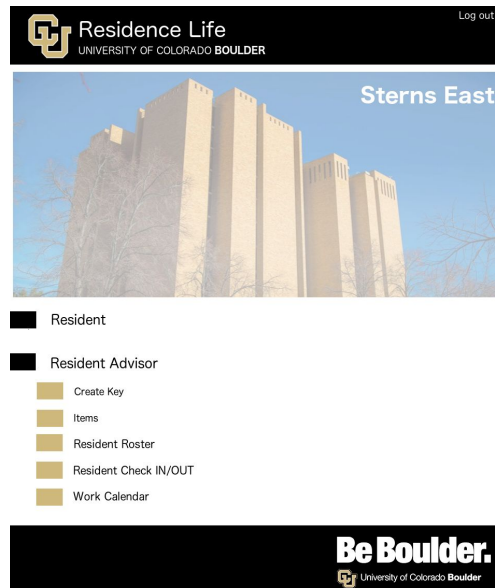
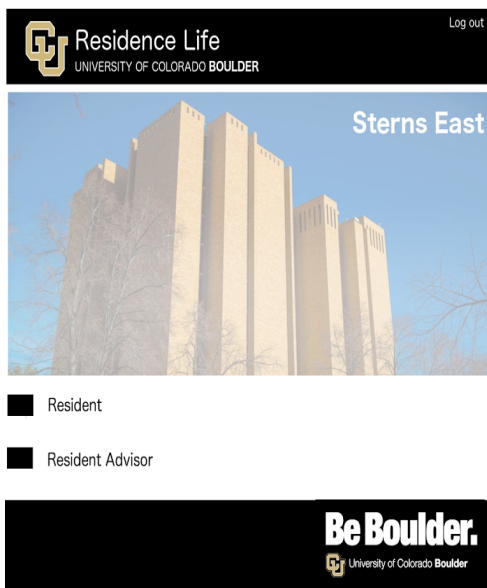
The CA views include views that show what would be seen by someone who was either a CA and a resident or a CA who was not a resident. We have a dropdown function for the CA tab that opens into an easy to read set of actions that a CA would need to use regularly including the ability to create a temp 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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Residence Life
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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

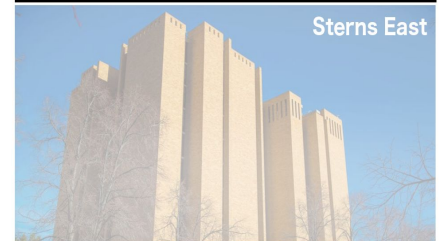
View Roomate Agreement

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Residence Life
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Log out

Sterns East

Resident

Items

Reuest Temp Key

Room Condition Form

RCF Complete

View RCF

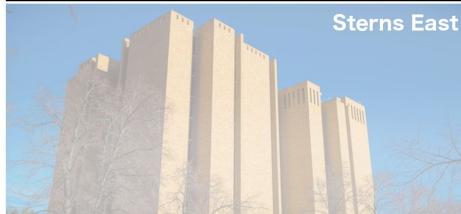
Roomate Agreement

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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

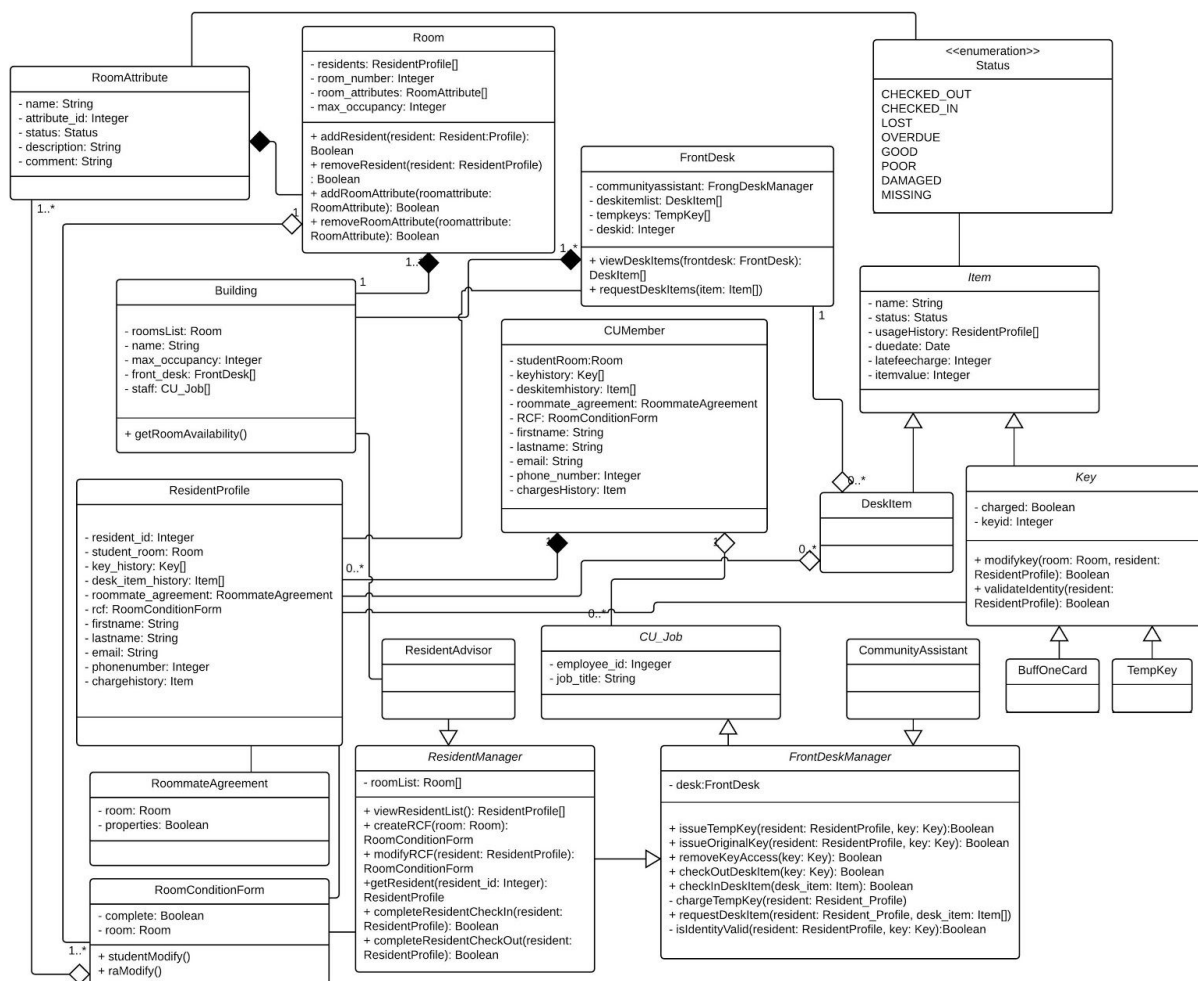
Be Boulder.

University of Colorado Boulder

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:



Note: We realize this is fairly difficult to read. To view it in its raw jpeg form, navigate to the ClassDiagrams directory from the root of the github. The image is called RevampRezlifeClassDiagram.jpeg . (You can also zoom in to view it)