*Residential Assistant Database*

**Problem**

A Residential Assistant, or RA, is a cornerstone of the residence hall experience, and is one of the most rewarding jobs to have during a college career. There are cons however to the experience, and one being resident management. Currently, there is just a loose collection of google sheets to keep track of residents and the roster, which is disorganized. There have been instances of data security being compromised with google sheets and losing files in a complicated google drive system. Expecting student workers to navigate this painfully simple yet confusing system is sometimes too much. Developing a simple, clean, easy to use database can help keep track of a multitude of students all while being able to effectively help all Residential Assistants, and even the Administration.

**Users**

The intended users are the hall directors of each residence hall and the RA’s that would use the database. This will help the resident assistants keep track of their students, and help them be aware of what organizations the students are a part of to make the interactions easier and more friendly.

**Things to track:**

**Student**

Students will keep track of studentID, and studentName composed of the first and last name.

**Resident Assistant**

Resident Assistant will have a raID, raName composed of first and last name

**Hall Director**

Hall Directors will keep track of their own hallDirectorID, hall director name composed of first and last name.

**Building**

Building will keep track of buildingID, roomID, roomcount, and floorcount.

**Organization**

An Organization will have a OrganizationID and OrganizationName

**Realistic Situations:**

* An RA needs to collect all of the students' names on their hall, and uses their names to make door decorations for their hall. In the same venue, the RA and hall directors would need a list of their specific students so they can use emailing services to notify their students of upcoming events.
* A sorority wants to decorate the doors of all of their members in a certain residence hall. This database could be useful to them by filtering the students’ organizations and by building, allowing them to bypass the confusion of where people live, while still being able to surprise the members, without exposing student data not in that organization.

**Requirements**:

* For each student:
  + - studentID (unique)
    - studentName
    - studentOrg(fk)
    - buildingID(fk)
    - roomID(FK)
    - year
    - raID(FK)
* for each RA:
  + - raID(unique)
    - studentID(FK)
    - halldirectorID(FK)
    - buildingID(fk)
    - roomID(fk)
* For each Hall Director:
  + - halldirectorID(unique)
    - buildingID(fk)
    - roomID(FK)
* For each Building:
  + - buildingID(unique)
    - roomID(unique)
    - roomcount
    - floorcount
* Organization:
  + - orgID(unique)
    - studentID(fk)
* Each Dorm has one or more floors.
* Each floor has many rooms.
* Each room is either none or many students occupying it.
* Each student has one room.
* Each student has none or many organizations
* Student overseen by one RA
* Each building must have many RA’s
* Each floor has one RA
* RA oversees must oversee many students
* RA is overseen by one hall director
* Each Hall director oversees many RAs
* Each organization has to have many students

ER Diagram:

