Database Project Proposal for Team #2

Our project will consistent of a database system for Appalachian State University Housing. Currently, the housing department does not use a database of any kind for managing student information, package pick-up, etc. In fact, the entire housing systems stores all its information on two spreadsheets! There are also many laborious tasks involved for housing desk assistants.

For example, the process for package pick-up consists of searching the student’s name in a spreadsheet to see which side of campus they live on, writing down the student’s name and a formatted package ID on a sheet of paper, typing their name and tracking number into a different spreadsheet, and then sending an email by hand. This is done a second time if the student has not picked up their package by the next afternoon. An inefficient system, to say the least. Our aim is to build database to better and more securely store the data, and automate such tasks as sending form emails. This will include the package system as well as key and reservation management.

The entities and relationships in our database are as follows:

STUDENT:

* Every student has a *BannerID*, which serves as his/her primary key, a *name* consisting of first and last names, a *preferred name* and an *email address* as attributes.
* A student can receive 0 or more packages.
* A student can be a Desk Assistant.
* A student can make a reservation.
* A student has a room.

ROOM:

* Every room has a *building* and a *room number*.
* 1 Room has either 1 or 2 students.
* Every room has at least 1 spare key(s).
* Every room has 0 or more reservations made for it.

PACKAGE:

* Every package has an *ID*, which serves as its primary key, a Boolean field for whether it has been *received*, another Boolean for whether it is *perishable*, and two dates, one for the date of the *first email* sent to remind the student they have a package, and another for the *second email*.
* Every package belongs to 1 student.

RESERVATION:

* Every reservation has an *ID* number, which serves as its primary key, the *start* *date* and *end date,* and a Boolean field for whether or not it is recurring.
* Every reservation is made by 1 student.
* Every reservation is made for 1 room.

DA:

* Every DA has a *name,* which serves as their primary key.
* Every DA works 1 or more shifts.

SHIFT:

* Every shift has a *start time* and a *end time*, as well as a *side* of campus that the DA is working on. Shift is a weak entity.
* Every shift belongs to 1 DA.

Note about this project: one of our team members, Jordan Fry, works for University Housing and made a proposal to replace their current database system with this project. University Housing has since told us that they already have a replacement for the current system in the works. However, we have decided to build this system as our project anyway.

The ER diagram is located on the next page.

