

## Final Project Proposal CS340

The proposal is to make a database that handles security access to a building. The database must contain employees, and track their clearance (access) level, and which doors allow require those clearances.

### Entities:

1. Employees - ID, F.Name, L.Name
2. Access Level - Access permissions
3. Doors - ID, Name
4. Department - ID, Name

### Relationships:

1. Employees and Access: All employees will require access permission to get into specific doors. Many-to-many relationship. Each employee can have multiple clearance levels and multiple people can have the same clearance level.
2. Employee to Department: One-to-many relationship. Multiple employees can be a part of one department, but each employee must be a part of only one department.
3. Doors to Access: One-to-many relationship. Doors will require specific access levels.
4. People can access doors: Many-to-many. Each employee can access multiple doors and doors can be accessed by multiple employees.
  - a. Relationship attributes include time-in and time-out