

TEAM 48

CSC2042

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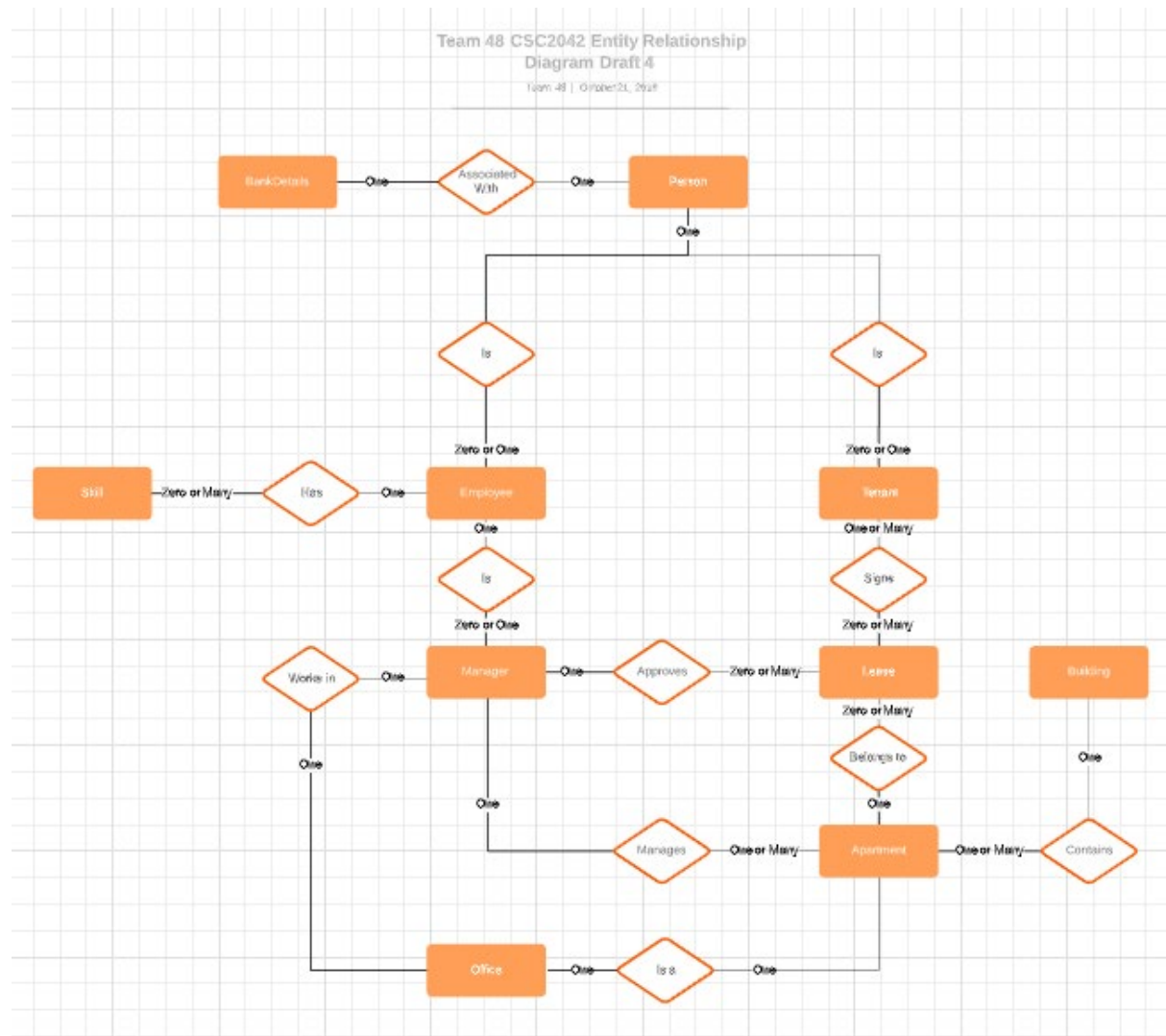
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Entity Relationship Diagram



Constraints and About the Entity Relationship Diagram

A building owned by Queens University Accommodation will contain one or many apartments, but an apartment must be contained within an apartment building.

It has been assumed that in reference to the document, a person is an entity that can be zero or one tenant or an employee. A person will have a separate set of bank details as a tenant needs to pay rent from a bank account and an employee needs a salary payed into their account. A person will have one and only one set of bank details.

As is stated in the assignment a person can be a tenant, hence a zero or one relation and the same is to be said for an employee. Both an employee and tenant must be one person. Hypothetically a person can be a tenant and employee. Tenants and employees can do many different things.

Employees may have zero or many skills, implying them to be an engineer of some degree. A list of skills will be available to be assigned to one employee. The role of a manager must exist within the structure of the database as inferred from the assignment documentation. It is then assumed that a manager is derived from employee meaning that an employee is or is not one manager, but a manager must be one and only one employee.

The role of a manager is twofold according to the assignment documentation. Firstly, they are responsible for the signing and approval of leases; a lease must be approved by one manager, but a manger can approve many leases in their tenure; hence the approval relationship in the ERD. Secondly, a manager manages at least one apartment in a building or range of buildings as it can be assumed that an apartment requires one and only one manager. Hence a manger may manage one or many apartments while employed. A perk of being a manger means you have an office in one of the buildings according to the assignment. So, a manager will have one office and an office will belong to one manager at any one time. Since a office is one of the apartments then an office is one apartment and one apartment can be an office.

In relation to the role of tenants in the database, when a tenant moves into an apartment, they must sign a lease. A tenant can assign zero or many leases if they wish to rent multiple facilities. A lease must be assigned by a minimum of one tenant. Leases will belong to one and only one apartment, but it can be assumed over time multiple leases will be taken out for an apartment therefore an apartment can have no leases, or many leases linked to it.

Such is the relational structure of this database system.

Database Design

SQL Queries

Coping with Changes

Answers to Hardness Questions

Individual Contributions Record

Individual