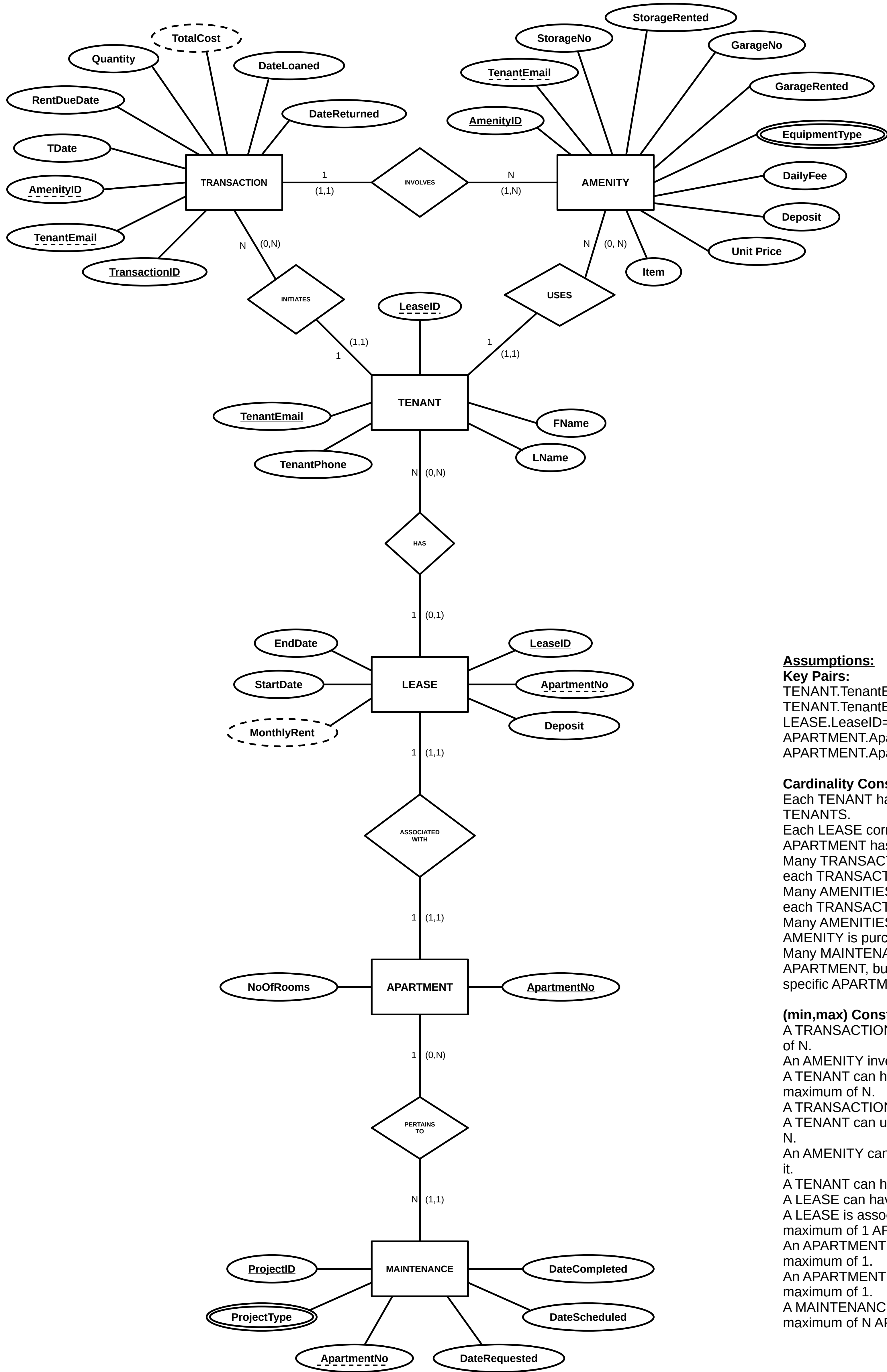


# APARTMENT COMPLEX DATABASE ER

Justin Hoang



**Assumptions:**

**Key Pairs:**

TENANT.TenantEmail=TRANSACTION.TenantEmail  
TENANT.TenantEmail=AMENITY.TenantEmail  
LEASE.LeaseID=TENANT.LeaseID  
APARTMENT.ApartmentNo=LEASE.ApartmentNo  
APARTMENT.ApartmentNo=MAINTENANCE.ApartmentNo

**Cardinality Constraints:**

Each TENANT has one LEASE, and each LEASE can have many TENANTS.  
Each LEASE corresponds to one APARTMENT, and each APARTMENT has one LEASE at a time.  
Many TRANSACTIONS can be associated with one TENANT, but each TRANSACTION is related to a specific TENANT.  
Many AMENITIES can be associated with one TRANSACTION, but each TRANSACTION is related to a specific AMENITY.  
Many AMENITIES can be purchased one TENANT, but each AMENITY is purchased by one TENANT.  
Many MAINTENANCE PROJECTS can be associated with one APARTMENT, but each MAINTENANCE PROJECT is related to a specific APARTMENT.

**(min,max) Constraints:**

A TRANSACTION involves a minimum of 1 AMENITY and a maximum of N.  
An AMENITY involves a minimum and maximum of 1 TRANSACTION.  
A TENANT can have a minimum of 0 TRANSACTIONS and a maximum of N.  
A TRANSACTION can have a minimum and maximum of 1 TENANT.  
A TENANT can use a maximum of 0 AMENITIES and a maximum of N.  
An AMENITY can have a minimum and maximum of 1 TENANT using it.  
A TENANT can have a minimum of 0 LEASES and a maximum of 1.  
A LEASE can have a minimum of 0 TENANTS and a maximum of N.  
A LEASE is associated with a minimum of 1 APARTMENT and a maximum of 1 APARTMENT.  
An APARTMENT is associated with a minimum of 1 LEASE and a maximum of 1.  
An APARTMENT pertains to a minimum of 1 MAINTENANCE and a maximum of 1.  
A MAINTENANCE pertains to a minimum of 0 APARTMENT and a maximum of N APARTMENT