Assessment 1A - Database (conceptual) modelling

One apartment complex has many apartments.
An apartment has one and only one apartment complex.

An apartment Complex is situated in only one location.
A location must have one or more (up to 12) apartment complexes.

One and only one tenant is hired to become a manager at an apartment complex.
A Manager manages at least one or more tenants at an apartment complex.

Each manager manages one and only complex.
Each complex is managed by one and only one manager.

One manager can organise many maintenance tasks at a complex.
One Maintenance task can be organised by one manager at a complex.

One Maintenance task may require a call out from one or more Maintenance companies.
A Maintenance company may have been assigned to a maintenance task previously and stored in the table.

A Maintenance task can be a General Maintenance type.
A General maintenance is a type of maintenance.

A Maintenance task can be a Unit Maintenance type.
A Unit maintenance type is a type of maintenance.

A Maintenance task may be required to be paid by the tenant.
A tenant must pay a maintenance task if they are invoiced.

One apartment complex pays one manager.
One manager is paid by one apartment complex.

One manager can select one or many maintenance companies from a list.
One maintenance company is selected by one manager per complex.

One tenant may (over 18) register as a lessee.
One lessee must be a tenant.

One apartment can have between one or four lessees
One lessee, as they have been registered, will have one apartment.

One lessee can have many dependents.
A dependant must have at least one or many lessees (parents/guardian).

An apartment complex may have many parking spaces.
A Parking space has one and only one apartment complex.

Each parking space is allocated to one and only apartment.
Each apartment can have many parking spaces.

Each parking space can be undercover.
An undercover space is a parking space.

Each parking space can be open-air.
Each open air parking space is a parking space.

Each parking space can be a lock-up.
A lock-up parking space is a parking space.

A Manager has many master keys that are used to make copies.
A master key is held securely by each apartment complex's manager.

A Master key is copied into an individual storage key.
A storage key copy is made from a Master key.

A Master key is copied into a lock up garage key.
A garage key copy is made from a Master key.

A Master key is copied into a storage key.
A storage key copy is made from a Master key.

A Master key is copied into an electrical unit key.
An electrical key copy is made from a Master key.

Each apartment may have one or more assets.
Each asset must be assigned to an apartment.

An apartment complex may have a Laundry.
A Laundry must have an assigned apartment complex.

A Laundry has one and only one monthly collection.
A monthly collection occurs at only one laundry per complex.

A lessee makes at least one or many payments.
A payment is made by one and only one lessee.

MAINT_COMPANY
- Main_Comp_Num
- Maintenance_Num
- Manager_ID
- Main_Phone
- Main_Email
- Main_Opening_Hours

COLLECTION
- Equipment_Num
- Date_collected
- Amount_taken

LAUNDRY
- Complex_Num
- Equipment_Num

APP_COMPLEX
- Complex_Num
- Location_Num
- Manager_ID
- General_Expense
- Insurnace_Cost

LOCATION
- Location_Num
- Postcode
- Suburb

OPEN_AIR
- Parking_Num
- Floor_Number

GENERAL_MAIN
- Maintenance_Num
- Maintenance_Type

APARTMENT
- Apartment_ID
- Complex_Num
- Apartment_Size
- Lease_Time

PARKING_SPACE
- Parking_Num
- Complex_Num
- Apartment_ID
- Parking_location
- Car_registration_Num

UNDERCOVER
- Parking_Num
- Vehicle_Type

MAINTENANCE
- Maintenance_Num
- Tenant_ID
- Apartment_ID
- Manager_ID
- Bexpense
- Texpense
- Res_Date
- Problem_Description
- Date_of_Request
- Resolution_Desc
- Repair_Cost

MANAGER
- Manager_ID
- Complex_Num
- Admit_Ref
- Rent_income

MASTER_KEY
- Key_ID
- Manager_ID
- Key_Name
- Key_description

LOCK_UP
- Parking_Num
- Single_or_Double

ELECTRICAL_UNITS_COPY
- Key_ID
- Unit_Num
- Unit_description
- Date_Copied

UNIT_MAINT
- Maintenance_Num
- Maintenance_Type

EQUIPMENT
- Asset_Num
- Apartment_ID
- Equipment_name
- Date_Installed
- Equipment_Details

TENANT
- Tenant_ID
- Manager_ID

UNIT_COPY
- Key_ID
- Unit_Num
- Unit_Size
- Date_Copied

STORAGE_COPY
- Key_ID
- Storage_Num
- Storage_Type
- Storage_Size
- Date_Copied

DEPENDENT
- Dependent_ID
- Dependent_FName
- Dependent_LName

LESSEE
- Lessee_ID
- Tenant_ID
- Apartment_ID
- Lessee_FName
- Lessee_LName
- DOB
- Phone_Num
- Start_Date
- End_Date

PAYMENT
- Payment_Num
- Lessee_ID
- Deposit
- Date_Paid
- Amount_Paid

LOCK_UP_GARAGE_COPY
- Key_ID
- Garage_Num
- Date_Copied

GUARDIAN
- Dependent_ID
- Lessee_ID

Relationships (labels):
- Collects
- has
- has (1,12)
- contains
- manages
- pays
- is
- selects
- has
- Texpense_invoice
- organises
- registers
- pays
- has (1,4)
- has