Domain Model

# Version 0.1.0

This document represents the “first pass” at a domain model for the SLC Electronic Management Service. The purpose of this document is to identify some of the classes required to complete the project.

Initially, relevant statements from the provided literature shall be laid out with various words highlighted according to the following key:

Nouns which will be considered for use as domain objects are marked in yellow.

Verbs which will be later considered for use as operations are marked in green.

Possessive phrases which will be later considered for use as attributes are marked in red.

* **Estate/Development**

An estate or a development should usually have a name and comprises of multiple thoroughfare and properties. Each estate will always have a contact perhaps, the estate manager who is in-charge and manages the development affairs. The development will have a location in a specific area of the country among other features

* **Thoroughfare**

Every development is made up of multiple thoroughfare with a name and properties in one or both sides. In this instance, a type of thoroughfare in a development can be a street, close, avenue, crescent etc.

* **Property**

A property is a building on a thoroughfare within a development. A Property type may be in form of a detached house, semi-detached, terrace and a block of flats etc. A property also comprises of a single or multiple households (see index d below for a household). A property will always have an address (usually building name, number and thoroughfare name), associated owner or custodian, and completion date among other features. A property may be owned, rented or managed by a body.

* **Household**

A household refers to property occupants regarded as a single unit for example, a detached house may be a single household, so as a block of flat. Any form of individual unit of a property is regarded as a household. Each household will have a custodian who usually, will be solely responsible for activities related to the household.

Nouns will now be listed in alphabetical order, duplicates will be removed and plurals made singular.

**Prospective classes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Avenue | Country | Estate Manager | Individual Unit | Semi-Detached |
| Block of Flats | Crescent | Feature | Instance | Side |
| Body | Custodian | Flat | Owner | Street |
| Building | Development | House | Property | Terrace |
| Close | Estate | Household | Property Occupants | Thoroughfare |

These prospective domain objects will now be further reviewed to assess suitability.

1. *Avenue, Close, Crescent, Street & Terrace* are all types of *Thoroughfare*. These are candidates for generalization and so will be put to one side for now.
2. *Block of Flats, Flat, House and Semi-Detached* are all types of *Property*. These are candidates for generalization and so will be put to one side for now.
3. *Custodian & Owner* are both types of *Body*. These are candidates for generalization and so will be put to one side for now.
4. *Building* and *Property* refer to the same entity and so *Building* shall be discarded.
5. *Country* is an entity that falls outside the scope of the project. There is no indication that SLC intend the EMS to be used for *Developments* outside of the United Kingdom. *Country* will therefore be discarded.
6. *Estate* and *Development* refer to the same entity and so *Estate* shall be discarded.
7. *Estate Manager* is an actor and so shall be used on Use Case diagrams. This may also be of use as an attribute in the *Development* class.
8. *Feature, Individual Unit, Instance & Side* are too vague to be of use at this time.
9. SLC have given no indication for a requirement to record the occupants of a *Property* other than the *Custodian*, therefore *Property Occupants* shall be discarded.
10. SLC contains multiple *Developments* therefore a class will need to be created to represent the entity *owning* the *Developments.* This class shall be called *Council* for now.

The revised table of prospective classes is as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Council | Body | Development | Property | Thoroughfare |

There is now sufficient information to form the first pass Domain Model. Note that as Block-of-Flats (a *Property)* contains Flats (also a *Property*) the *Property* class can contain objects of its own type.

