# A Simple Class

<img class=" size-full wp-image-208 aligncenter" src="https://henrietteharmse.files.wordpress.com/2017/09/a-simple-class1.png" alt="A Simple Class" width="91" height="52" />

Let us start with a simple example. Assume we have a <code>Person</code> class, which models a person that has a name. Let us just think about what this means. If we think of our domain of interest and we list all the objects of the domain, some objects will belong to a set that is a subset of the domain of interest, which is called the <code>Person</code> set, which is represented by our <code>Person</code> class. Our <code>Person</code> class also has a <code>name</code> attribute of type <code>String</code>, but it is likely that we will have other classes in our domain that may have a <code>name</code> attribute of type <code>String</code>. Thus, the <code>Person</code> class represents objects that are a subset of all the objects in the domain that have a <code>name</code> attribute of type <code>String</code>. This is shown in the Venn diagram below.

<img class=" wp-image-212 aligncenter" src="https://henrietteharmse.files.wordpress.com/2017/09/person-subset.png" alt="Person Subset" width="488" height="194" />

Note that the <code>Person</code> class is not necessarily a strict subset of the objects that have a <code>name</code> attribute of type <code>String</code>. It is possible that the <code>Person</code> class is the only class in our domain that has a <code>name</code> attribute of type <code>String</code>, in which case these two sets are in fact equal.

The OWL 2 equivalent representation in Manchester syntax is given in the image below. Note that for the <code>name</code> attribute in the UML class we have defined a related <code>DataProperty</code>. Furthermore, a <code>Person</code> class is also defined, which is defined as <code>SubClassOf: name some xsd:string</code>. What this means is that individuals that belongs to the <code>Person</code> class also belongs to the class of individuals that have a <code>name</code> property of type <code>xsd:string</code>. Thus, the <code>Person</code> class is a subclass of the class representing individuals that have a <code>name property of type <code>xsd:string</code>.</code>

<span style="text-decoration: underline;"><img class=" wp-image-209 aligncenter" src="https://henrietteharmse.files.wordpress.com/2017/09/person-manchester1.png" alt="Person Manchester" width="254" height="113" /></span>