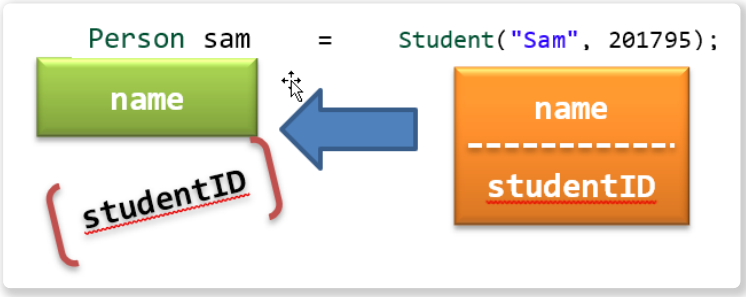
The Slicing Problem

Here's why this happens. First, objects in C++ are value types, unlike the reference types in Java. When you assign a derived class object to a base class variable, **only the base class portion** of the object is copied. **This is called the slicing problem.**



If you pass a derived class object **by value** to a function that expects a base class object, the same slicing will occur as well. This is easy to fix. Just **always** follow this rule:

Never ever ever ever assign a derived class object to a base class variable. Ever!