Q3 O.O.J C1821631

I started with an Instruments class which I tried to incorporate all the general information for instruments this included variables such as the Name, Price, Weight, Country of Origin and Owner. However, the use of these would depend on the practical application in which this hierarchy were to be used.

Then on the Subclasses' to instruments began to specialise towards features that were relevant to that group of instruments including items such as a Mouthpiece for the woodwind instruments. This is due to all woodwind instruments being able to be separated into two categories, flutes and reed instruments. However, there wasn't more to be added to that sub class as any further specialization came within a family of one instrument for example the flutes having different categories which reed woodwind instruments did not have.

To then further specialise the sub sub categories further specialization was added with the Tuba sub class of Brass, having an integer private to that class as it applied to the Tuba but not all Brass instruments. However, as tube length did apply to more than just the tuba, the field I generated was named tubaTubeLength to avoid any ambiguity when instantiating other classes. This also helps if there are more sub classes instantiated it also removes ambiguity with them as well.

For the print function they have been assigned the same name however every sub class starts by using the super version of the same function so that if any other sub classes are added only one line of print needs to be added instead of all the previous super classes fields being referenced in every sub class to them.