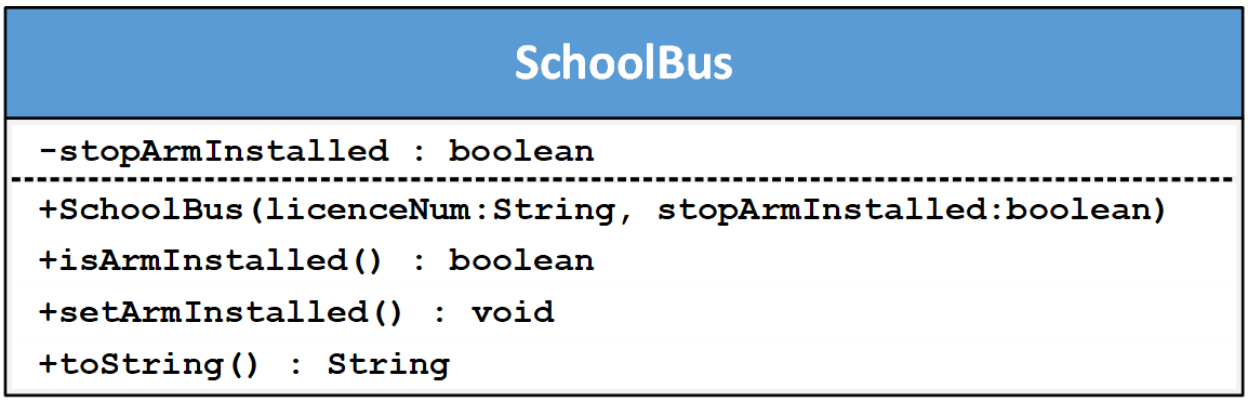
# Step 2- Sub Classes of Bus

For this step, we will create three subclasses of Bus. The following UML diagrams and notes detail what is required for each sub class. Don't forget to implement the abstract method detailed in step 1.

### SchoolBus

This sub-class is used to describe a school bus. Average length and passenger capacity values are 25 feet and 20 passengers. For this class you should note whether or not the SchoolBus is equipped with a Stop Arm.

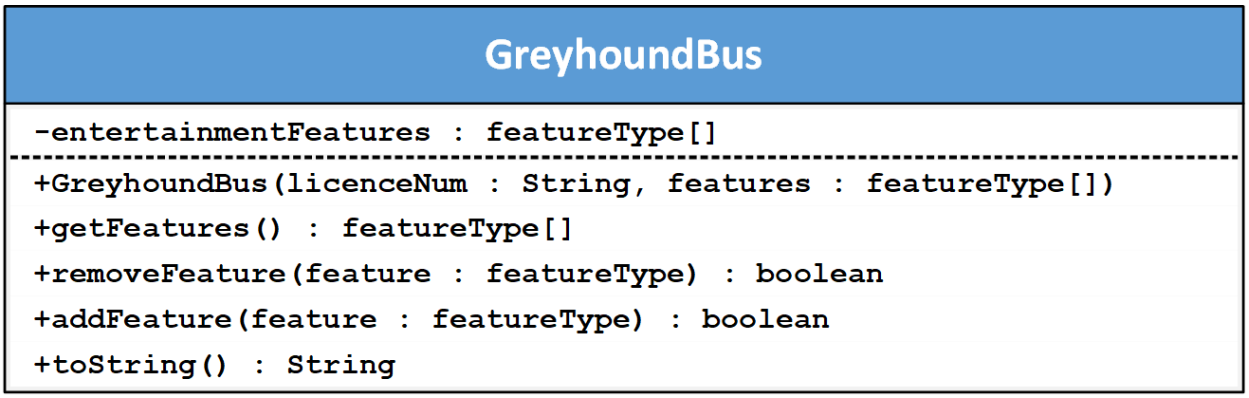


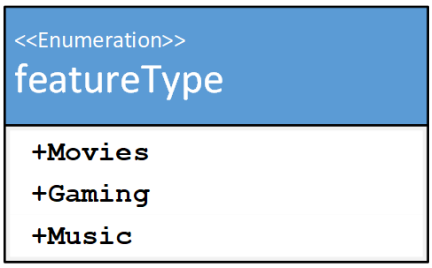

For the abstract method getTurnRadius(), you will calculate a school bus's turn radius to be equal to its length+ 20 feet.

A SchoolBus can carry 3 pieces of luggage per foot of length.

### GreyhoundBus

This particular class is used to describe a bus that is used for highway transportation over long distance. Average length and passenger capacity values are 50 feet and 50 passengers. For Greyhounds you should take into account whether or not it has entertainment features available for passengers. Possible features are specified in the enumeration featureType. A UML diagram for the Greyhound class and required enumeration is provided here:



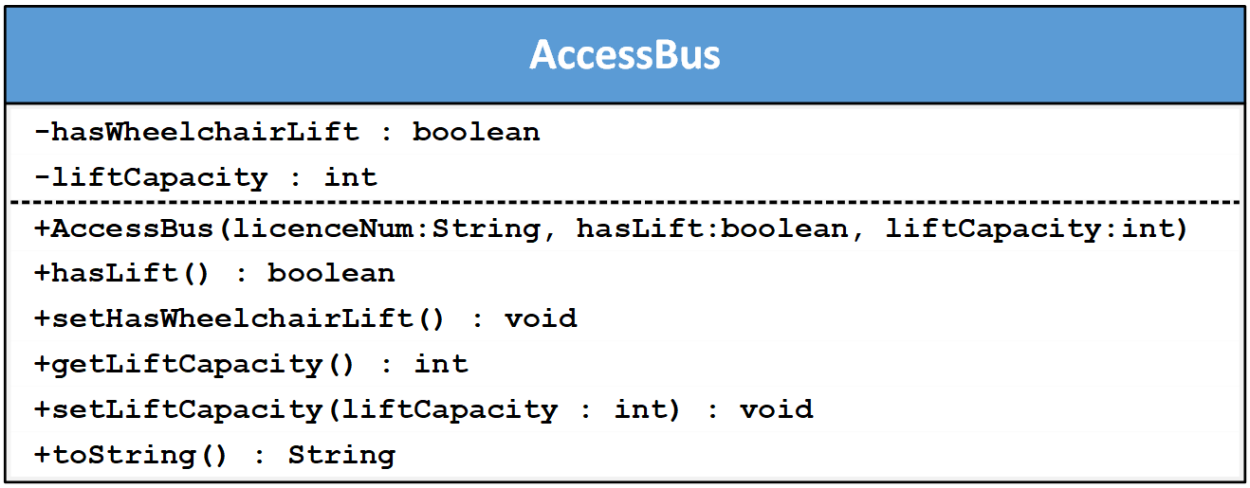




For the abstract method getTurnRadius(), you will calculate a greyhound bus's turn radius to be equal to double its length in feet.

A Greyhound can carry 6 pieces of luggage per foot of length.

### AccessBus

AccessBuses are used to provide transportation for people who can't drive themselves. Some are equipped with wheelchair lifts and those lifts have a certain weight capacity in kilograms. Average length and passenger capacity values are 15 feet and 12 passengers. A UML diagram for the AccessBus class is provided below:



For the abstract method getTurnRadius(), you will calculate an AccessBus's turn radius to be equal to its length in feet.

An AccessBus can carry 1 piece of luggage per foot of length.