

In our UML class diagram, which attributes and behaviors of the **Animal** class are inherited by the **Dog** class? Note: You can assume that the two classes are in the same package.

- ☐ `playFetch()`
- ☐ `numberOfLegs`, `numberOfTails`, `walk()`, `run()`, `eat()`
- ☐ None of the attributes and behaviors are inherited.
- ☒ All attributes and behaviors of **Animal** are inherited.



Correct

Great job! According to the UML diagram, **Animal** has many behaviours and attributes inherited by **Dog**.

You are a developer in charge of creating different methods of travel in a video game. The team has decided to give the player various options for transportation, which include: riding a horse, driving a car, or flying a plane. You have decided that you will generalize these modes of transportation into an abstract class called Transport.

Which attributes and behaviors would you include in your general class?

☒ `public void verticalMovement() { ... }`

☐ **This should not be selected**
Only a plane is capable of moving up and down, so this will be implemented in the Plane class!

☒ `public int fuel;`

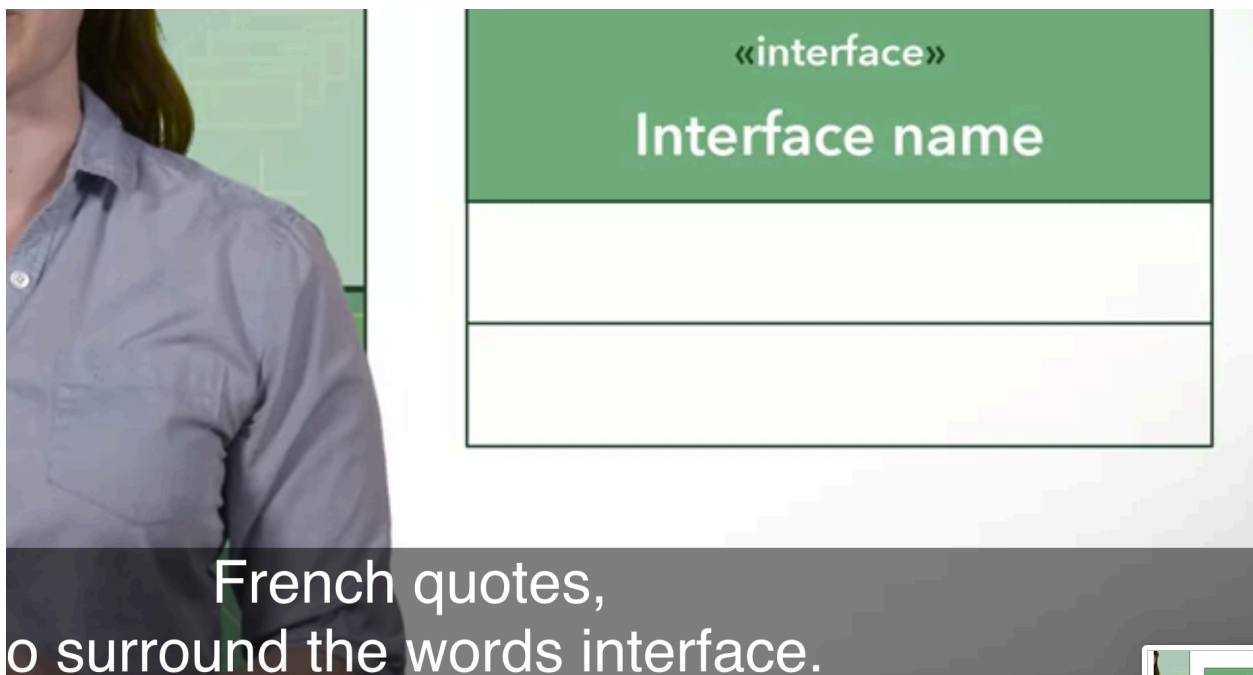
☐ **This should not be selected**
Horses don't need fuel, so this probably should not be in the superclass!

☒ `public void moveForward() { ... }`

☒ **Correct**
Great! All transports would know how to move forward.

☒ `public int speed;`

☒ **Correct**
Great! All of these classes should know how fast they are going, even if the speeds are quite different.



Interfaces are drawn in a similar way that classes are drawn in UMLs. Interfaces are explicitly noted in UML class diagrams using **guillemets, or French quotes**, to surround the words interface.

The interaction between an interface and a class that is implementing the interface is indicated using **a dotted arrow**. The class touches the tail end of the arrow and the interface touches the head of the arrow.