@ Inheritance ( ‘IS-A’ relationship)

# Question Answer/

Q) why do we need ‘super’ keyword

Ans> Inheritance means that in order to create a Dog, Java automatically creates an Animal first.  Dog inherits all of the features of Animal.  We can specify the name, brain, body, size, and weight of our Dog by initiating those things when the Animal is created using super().

In other words, the call to super(name, brain, body, size, weight) is just like saying Animal(name, brain, body, size, weight).

Whenever a Dog is created, an Animal constructor will be called using super.   If we pass in some arguments to the Animal then the Animal(name, brain, body, size, weight) constructor is called.  If we don't specifically use super with arguments, then the default Animal() constructor is called instead, and none of the fields get initialized.

If we leave out the super(name, brain, body, size, weight) the compiler with create the Animal without arguments (i.e. the compiler calls super() ).  So, even if we delete super(name, brain, body, size, weigh), super() gets called automatically.

It is important to know that Java provides a default constructor with no arguments when we write classes, like Animal().  But, if we write a constructor with arguments, that default constructor doesn't get created automatically any longer, we have to create it explicitly.

Since an argument-less Animal() constructor wasn't defined, the compiler should throw an error if we delete the call to super.

Ans2>

You call method super when you want to invoke parent class constructor or method inside inherited class. If you have Animal  as parent and Dog  class as child when you call super()  in Dog constructor, you are initialising constructor of the Animal first. Or if you have overridden method in your child class, but in it you also want to use functionality of parent's method too, you will call super.parentClassMethod()  and then add additional functionality

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