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Week 10

March 26 2023

Week 10 Prog 2

Part 2 -- Watch the video about inheritance:

<https://www.youtube.com/watch?v=0PPKccntohM>

* write a summary

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Inheritance is an IS A relationship between classes. It a way to define classes based on other classes. For example, a subclass tesla could inherit from a base or super class car. By doing this, the tesla class will inherit all of the features of the base car class, such as wheels, seats, a steering wheel, etc. but allow for more specific customization for the tesla only, like an electric engine.

The main reasons to use inheritance are for organization, efficiency, and code reuse. By inheriting methods from a super class, a subclass does not need to redefine similar methods.

Code example:

```
Public class car {  
    Public void wheels() {  
        System.out.println("I have wheels");  
    }  
}
```

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```
Public class tesla extends car {  
    Public void engine() {  
        System.out.println("I have an electric engine");  
    }  
}
```

```
Class main {  
    Public static void main(String[] args) {  
        tesla t = new tesla();  
        t.wheels(); //Gets method from super class car  
        t.engine(); //Gets subclass specific method  
    }  
}
```