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**Encapsulation** is used for hide the code and **data in a** single unit to protect the **data** from the outside the world. **Abstraction** on the other hand means showing only the necessary details to the intended user.

In simple terms, **Encapsulation** is wrapping up of **data** whilst **Abstraction** is hiding up of backend **data**...

**Abstraction** means displaying only essential information and hiding the details. Data **abstraction** refers to providing only essential information about the data to the outside world, hiding the background details or implementation.

**Inheritance** is an important pillar of OOP (object-oriented **programming**) It is the mechanism by which one class acquires the property of another class.

Method overloading is an **example** of static **polymorphism**, while method overriding is an **example** of dynamic **polymorphism**. ... In fact, any object that satisfies more than one IS-A relationship is **polymorphic** in nature. For instance, let's consider a class Animal and let Cat be a subclass of Animal.

Generally, the ability to appear in many forms. In **object-oriented programming**, **polymorphism** refers to a programming language's ability to process objects differently depending on their data type or class. More specifically, it is the ability to redefine methods for derived classes.