* A very important fact to remember is **that Java does not support multiple inheritance**. This means that a class cannot extend more than one class. **However, a class can implement one or more interfaces**, which has helped Java get rid of the impossibility of multiple inheritance.
* If a class inherits a method from its superclass, then there is a chance to override the method provided that it is not marked final. Overriding means to override the functionality of an existing method.
* **Polymorphism** is the ability of an object to take on many forms. The most common use of polymorphism in OOP occurs when a parent class reference is used to refer to a child class object. Any Java object that can pass more than one IS-A test is considered to be polymorphic
* Likewise in Object-oriented programming, abstraction is a process of hiding the implementation details from the user. In Java, abstraction is achieved using Abstract classes and interfaces.

Abstract classes may or may not contain *abstract methods*, i.e., methods without body

But, if a class has at least one abstract method, then the class **must** be declared abstract

If a class is declared abstract, it cannot be instantiated.

**To use an abstract class, you have to inherit it from another class, provide implementations to the abstract methods in it.**

* **Encapsulation** in Java is a mechanism of wrapping the data (variables) and code acting on the data (methods) together as a single unit. In encapsulation, the variables of a class will be hidden from other classes, and can be accessed only through the methods of their current class. Therefore, it is also known as **data hiding**.

To achieve encapsulation in Java −

Declare the variables of a class as private.

Provide public setter and getter methods to modify and view the variables values.