**Abstract class vs interface**

**Abstract class** and **interface** are both tools to achieve abstraction that allow us to declare the abstract methods. We cannot create instances of abstract classes and interfaces directly, we can only do that through classes that inherit them.

Since Java 8, an interface can have default and static methods that contain an implementation. It makes interface more similar to an abstract class. So, the important question is: what is the difference between interfaces and abstract classes?

Below you can see a list of some important differences between these two concepts.

* an **abstract class** can have *abstract* and *non-abstract* instance methods while an **interface**can have *abstract* or *default* instance methods;
* an **abstract class** can extend another abstract or regular class and an **interface** can only extend another interface;
* an **abstract class** can extend only one class while an **interface** can extend any number of interfaces;
* an **abstract class** can have *final*, *non-final*, *static*, *non-static* *variables* (regular fields) while an interface can only have *static final variables*;
* an **abstract class** can provide an implementation of an interface but an **interface** cannot provide an implementation of an abstract class;
* an **abstract class** can have a constructor and an **interface** cannot;
* in an **abstract class**, the keyword abstract is mandatory to declare a method as an *abstract* one while in an **interface** this keyword is optional.

Remember, a class **extends** another class, a class **implements** an interface, but an interface **extends** another interface.

The provided list of differences is by no means complete. **Abstract classes** and **interfaces** have a lot of other differences but the main one is their purpose.

Typically, interfaces are used to decouple the interface of a component (class) from the implementation while abstract classes are often used as base classes with common fields to be extended by subclasses.