

Abstract class and method

Data **abstraction** is the process of hiding certain details and showing only essential information to the user.

Abstraction can be achieved with either **abstract classes** or **interfaces**

The **abstract** keyword is a non-access modifier, used for classes and methods:

- **Abstract class:** is a restricted class that cannot be used to create objects (to access it, it must be inherited from another class).
- **Abstract method:** can only be used in an abstract class, and it does not have a body. The body is provided by the subclass (inherited from).

```
abstract class Animal {
    abstract void makeSound();

    public void eat() {
        System.out.println("I can eat.");
    }
}

class Dog extends Animal {

    public void makeSound() {
        System.out.println("Bark bark");
    }
}

class Main {
    public static void main(String[] args) {
        Dog d1 = new Dog();
        d1.makeSound();
        d1.eat();
    }
}
```

Rules for Java Abstract class



1

An abstract class must be declared with an abstract keyword.

2

It can have abstract and non-abstract methods.

3

It cannot be Instantiated.

4

It can have final methods

5

It can have constructors and static methods also.