

• Reflection API in Java

Java reflection is an API used to inspect and modify Java classes, fields, methods, and constructors at runtime. Java has a class named `Class` that collects and stores all information about classes and objects, this class helps facilitate the ability to use reflection.

- **.getClass():** The `getClass` method is called on the object of a class to retrieve and reflect the class you want.
- **.class Extension:** The `.class` extension is also used to retrieve and reflect class information. This extension is chained to the end of a class, creating an object of the `Class`.

Ex:

```
class Main {
    public static void main(String[] args) {
        try {
            // create an object of Car
            Car c1 = new Car();

            // create an object of Class
            // using getClass()
            Class obj = c1.getClass();

            // get name of the class
            String name = obj.getName();
            System.out.println("Name: " + name);

            // get the access modifier of the class
            int modifier = obj.getModifiers();

            // convert the access modifier to string
            String mod = Modifier.toString(modifier);
            System.out.println("Modifier: " + mod);

            // get the superclass of Car
            Class superClass = obj.getSuperclass();
            System.out.println("Superclass: " + superClass.getName());
        }
        catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```