

Access specifiers for classes or interfaces in Java

In Java, methods and data members of a class/interface can have one of the following four access specifiers. The access specifiers are listed according to their restrictiveness order.

- 1) private
- 2) default (when no access specifier is specified)
- 3) protected
- 4) public

But, the classes and interfaces themselves can have only two access specifiers.

- 1) public
- 2) default (when no access specifier is specified)

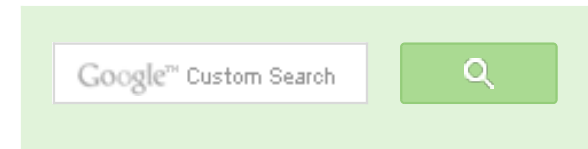
We cannot declare class/interface with private or protected access specifiers. For example, following program fails in compilation.

```
//filename: Main.java
protected class Test {}

public class Main {
    public static void main(String args[]) {

    }
}
```

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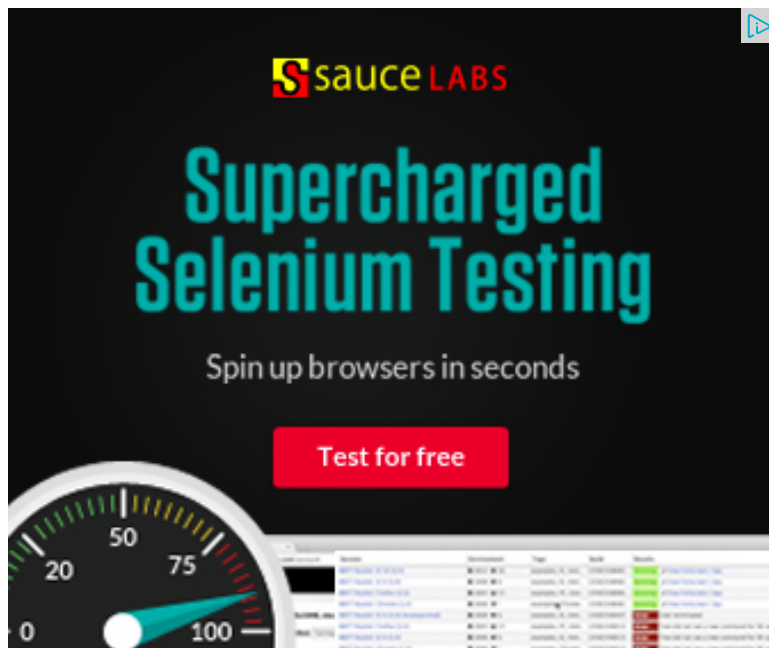
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```

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cj4 • 3 years ago

Inner classes can be private.

1 ^ | v • Reply • Share ›



shubh → cj4 • 3 years ago

these can be protected as well

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Raghu • 3 years ago

-----_Very Important TO Note -----

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One thing very important.,

Data members and methods of an Interface CANNOT be private or protected.

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Mariselvam • 3 years ago

One thing I want to share here is , the 'contract' of access specifiers in inheritance.

In a inheritance hierarchy, when we do override any method , we can make it public. Thats we can change the access specifier of the overridden method from 'protected' or 'private', as it violates the contract of base class.

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Sandeep → Mariselvam • 3 years ago

@Mariselvam:

Thanks for sharing this info. This has been already published as [G-Fac](#)

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Mariselvam → Sandeep • 3 years ago

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geek4u • 3 years ago

Classes and interfaces are part of a package. So there are only two possible access specifiers for them: public and default. They cannot be accessed in other packages (default). There are access specifiers for them.

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Swaroop → geek4u • 3 years ago

Thanks for the info.

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