

Java Access Modifiers

- ❑ Java supports four categories of accessibility rules
 - private
 - protected
 - public
 - default

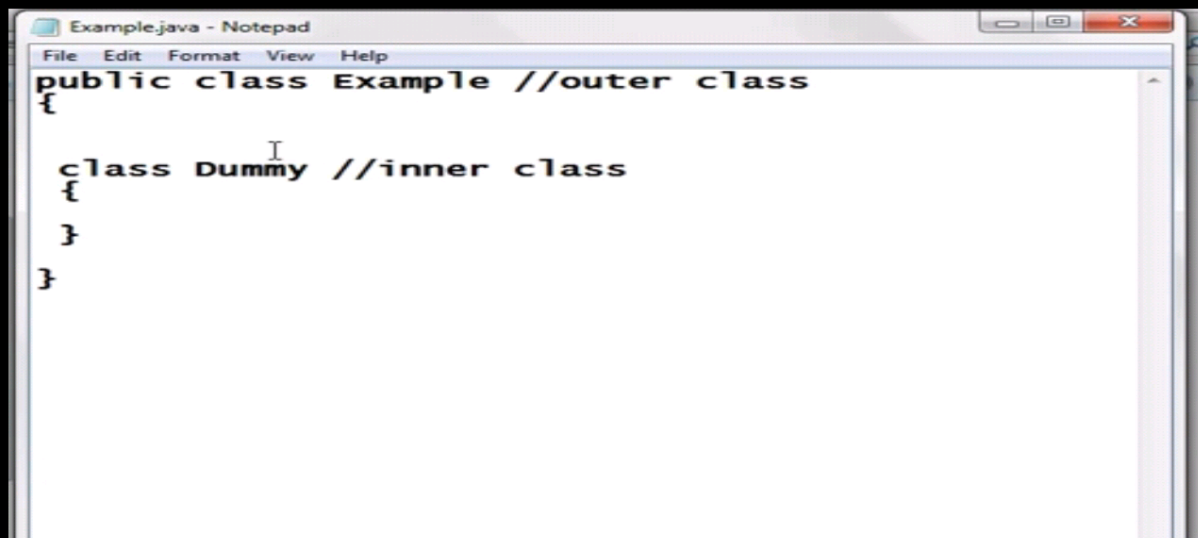
- ❑ Modifiers can be used for class, member variables and member functions



With class

- ❑ Outer class and inner class
- ❑ For **outer class**, there can be only two possibilities, either class is a public class or just a class which means it is of default type.
- ❑ For **inner class** any among four access modifiers can be used





```
Example.java - Notepad
File Edit Format View Help
public class Example //outer class
{
    class Dummy //inner class
    {
    }
}
```

The image shows a Notepad window titled "Example.java - Notepad". The window contains the following Java code: `public class Example //outer class`, `{`, `class Dummy //inner class`, `{`, `}`, and `}`. The code defines an outer class named "Example" and an inner class named "Dummy". The inner class "Dummy" is currently empty. The Notepad window has a standard menu bar with "File", "Edit", "Format", "View", and "Help".

Remember

- ❑ There can be only one public class in a single java file.
- ❑ The name of the java file must be the same as the name of the public class.
- ❑ Only public class can be accessed directly from outside the package



Member variables and functions

- ☐ When members of the class are **private**, they can not be accessed from outside the class body. They are meant to be accessed from the same class in which they are declared.
- ☐ When members are **protected**, they can be accessed from any class of the same package and child class from other package.
- ☐ When members are **public**, they are accessible from any class of any package.
- ☐ When members are **default**, they are accessible only from the class of same package.

