

Summary 8 - Visibility: public, private, protected, package

- What is this?

Fields, constructors and methods of a class X can be:

- **Public**, using *public* keyword - visible within any class
- **Protected**, using *protected* keyword - visible within any subclass of X, and also within any class in the same package as X
- **Package-level** visible, the default if **no keyword** is used - visible within any class in the same package as X
- **Private**, using *private* keyword - visible only within the class X

Advice:

- Use the most restrictive visibility practical in your application.
- Fields should generally be private. Use public getters and setters if needed. As the Java Tutorials put it: "Public fields tend to link you to a particular implementation and limit your flexibility in changing your code."
- Constructors are almost always public.
- Classes are usually public but can be package-level.

Pitfall: Forgetting to specify an access level, thus getting package-level visibility by accident.

- Example

[Need to put an example here]

- For further study:

- *Big Java*, section 10.7 *Access Control*
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