

Aspect-Oriented Programming (AOP)

@After Advice

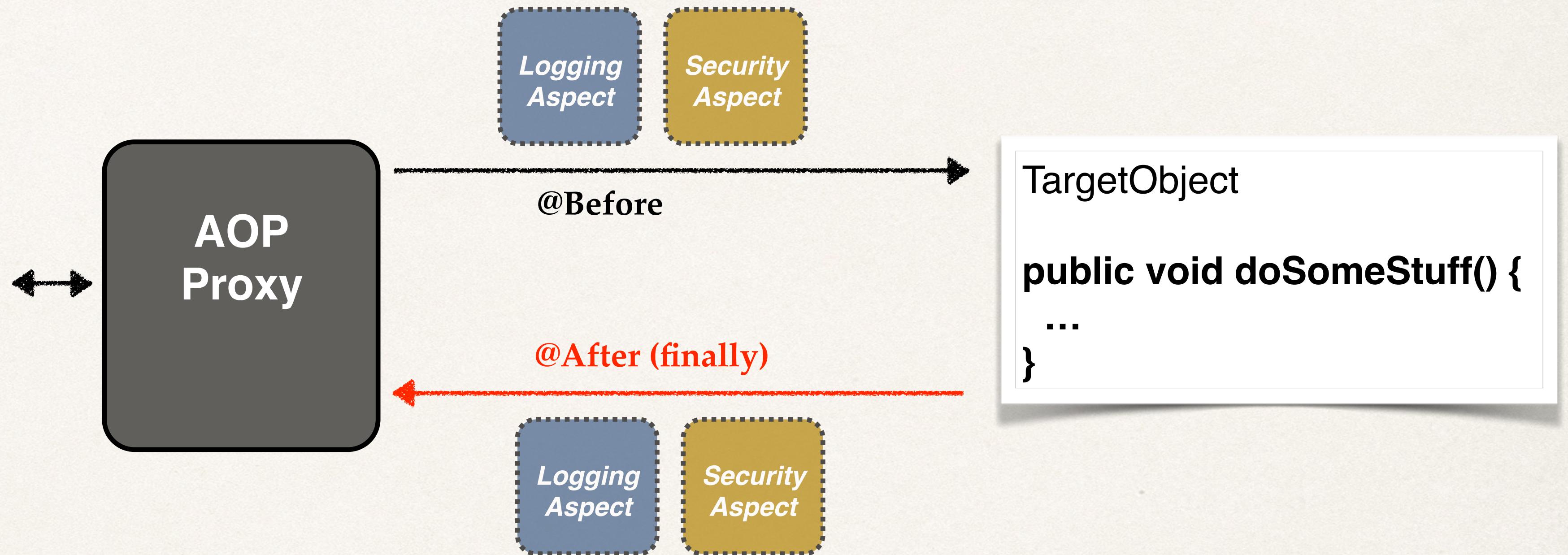


Advice Types

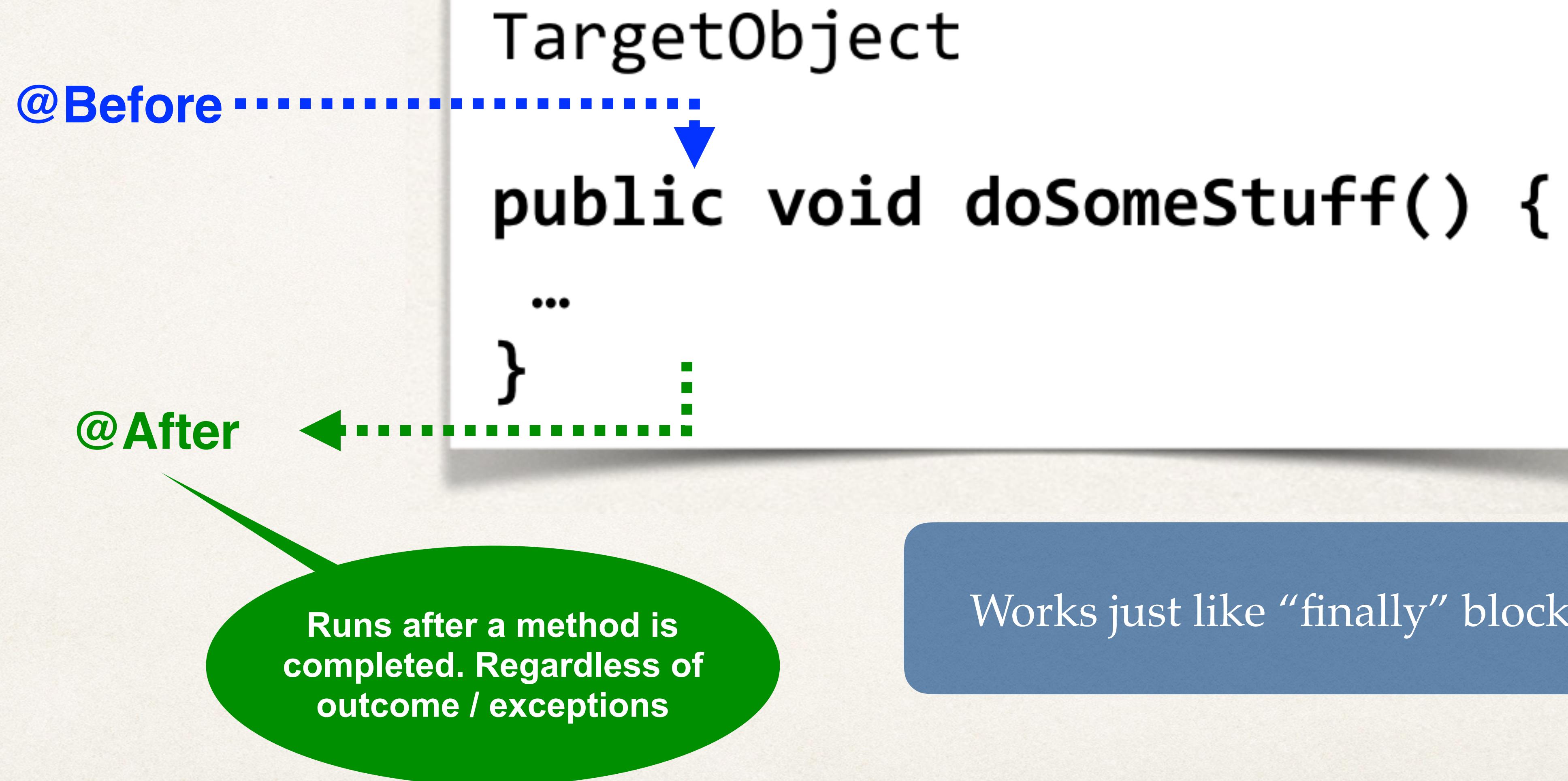
- **Before advice:** run before the method
- **After returning advice:** run after the method (success execution)
- **After throwing advice:** run after method (if exception thrown)
- **After finally advice:** run after the method (finally)
- **Around advice:** run before and after method

@After (finally) Advice - Interaction

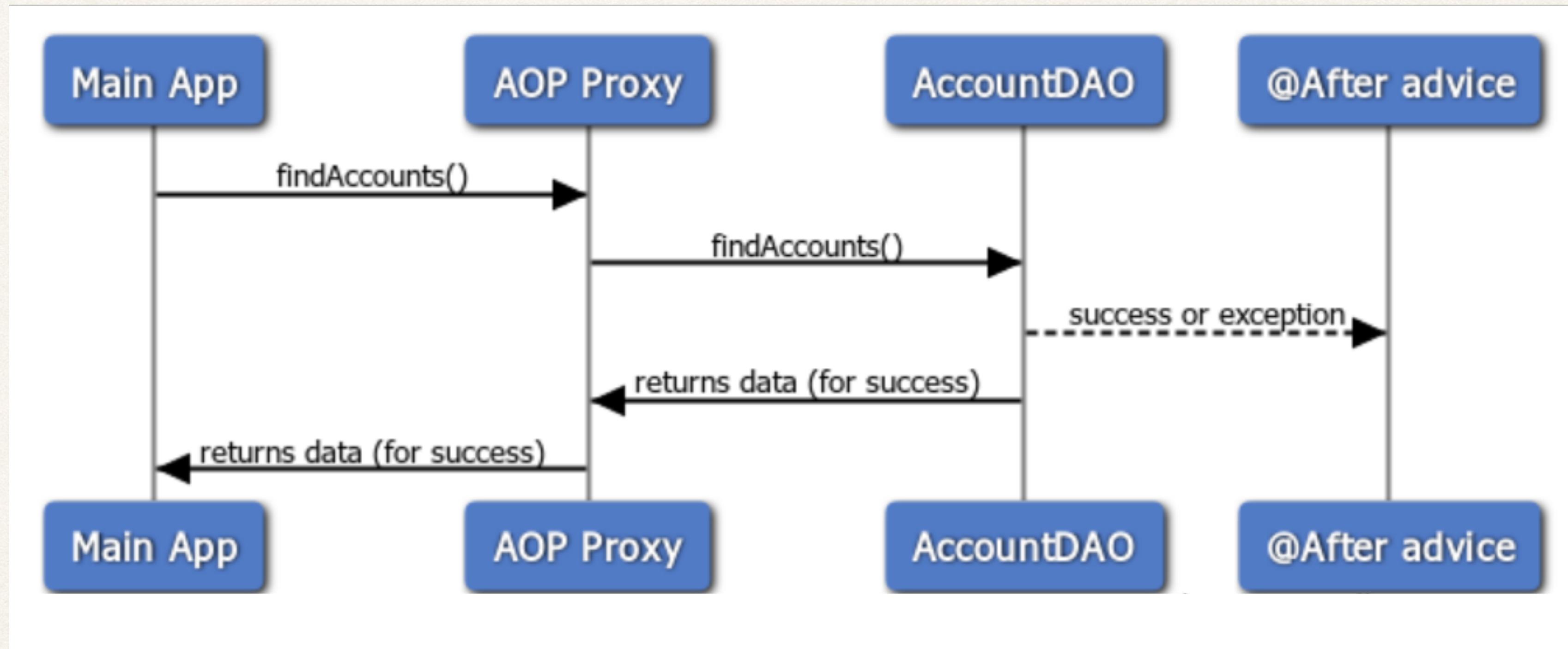
```
MainApp  
// call target object  
targetObj.doSomeStuff();
```



Advice - Interaction

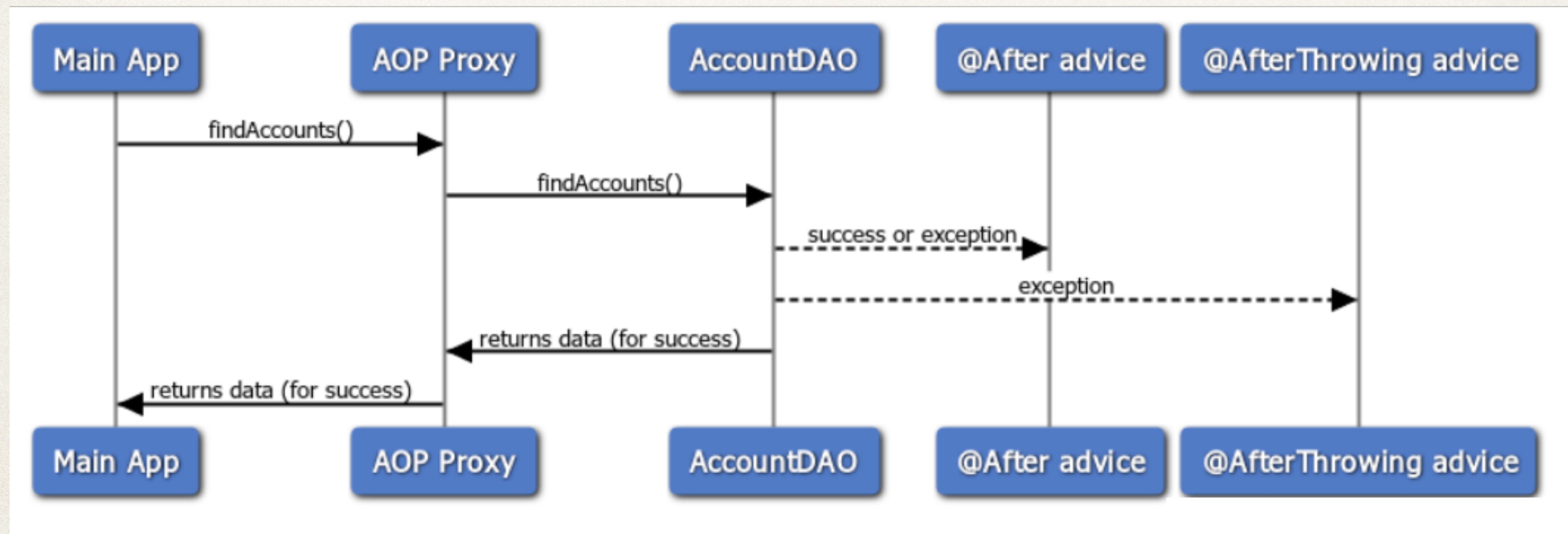


Sequence Diagram



Sequence Diagram

- @After will execute **before** @AfterThrowing



@After Advice - Use Cases

- Log the exception and/or perform auditing
- Code to run regardless of method outcome
- Encapsulate this functionality in AOP aspect for easy reuse

Example

- Create an advice to run after the method (finally ... success / failure)



@After Advice

- This advice will run after the method (finally ... success / failure)

```
@After("execution(* com.luv2code.aopdemo.dao.AccountDAO.findAccounts(..))")
public void afterFinallyFindAccountsAdvice() {

    System.out.println("Executing @After (finally) advice");

}
```

@After Advice - Tips

- The @After advice does not have access to the exception
 - If you need exception, then use @AfterThrowing advice
- The @After advice should be able to run in the case of success or error
 - Your code should not depend on happy path or an exception
 - Logging / auditing is the easiest case here