SpringOne Platform

Spring 4 Web Apps

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About Me

Spring Framework committer

Focus on Spring MVC, WebSocket

Reactive effort

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Spring Framework 4.3

Last 4.x feature release

Extended support life on JDK 6, 7, 8

Tomcat 6.0 - 8.5, WebSphere 7 - 9

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Shortcut Annotations

`@RequestMapping`

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```
@GetMapping

@PostMapping

@PutMapping

@DeleteMapping
```

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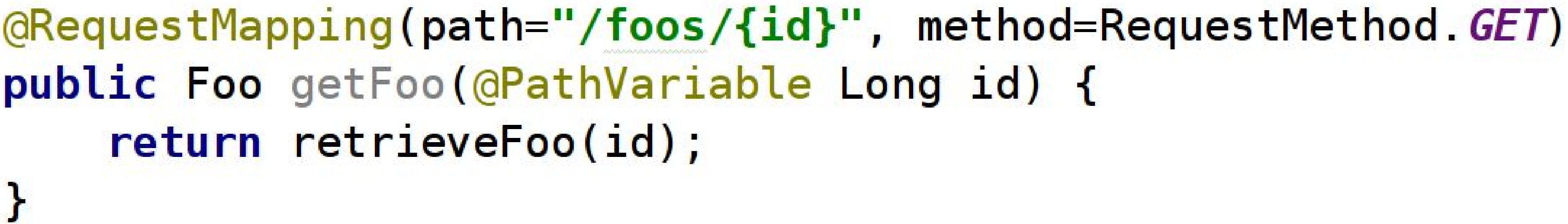

```
@RequestMapping(path="/foos/{id}", method=RequestMethod.GET)
public Foo getFoo(@PathVariable Long id) {
    return retrieveFoo(id);
}
```

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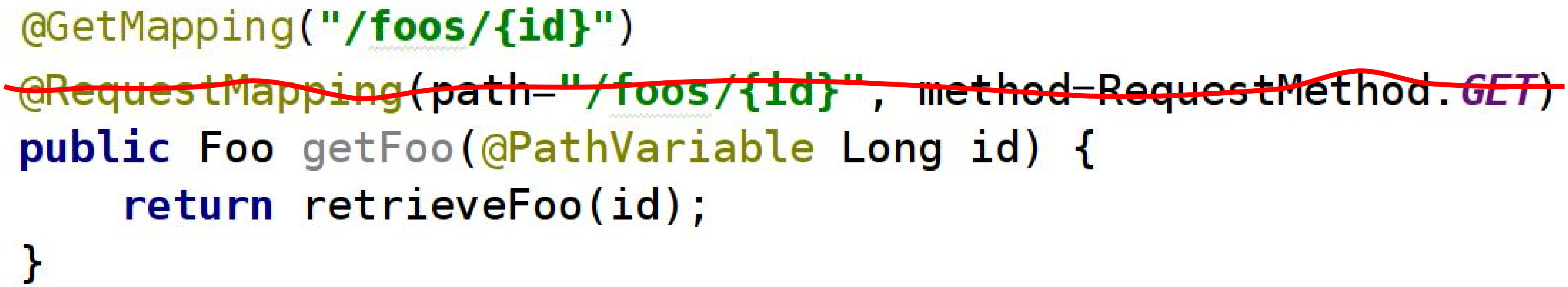

```
@GetMapping("/foos/{id}")
~~@RequestMapping(path="/foos/{id}", method=RequestMethod.GET)~~
public Foo getFoo(@PathVariable Long id) {
    return retrieveFoo(id);
}
```

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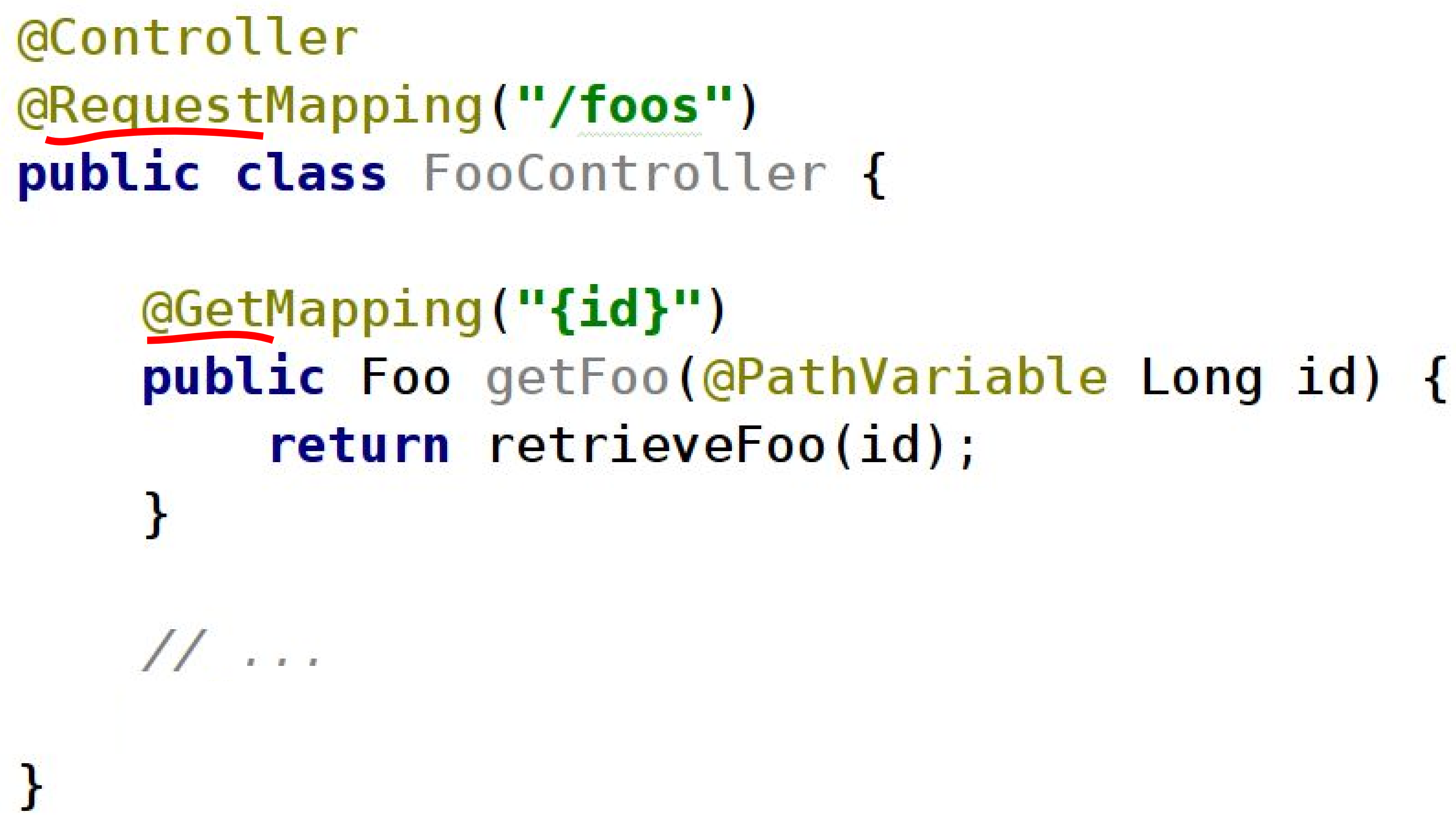

```
@Controller
@RequestMapping("/foos")
public class FooController {

    @GetMapping("{id}")
    public Foo getFoo(@PathVariable Long id) {
        return retrieveFoo(id);
    }

    // ...

}
```

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```
@RequestScope

@SessionScope

@ApplicationScope
```

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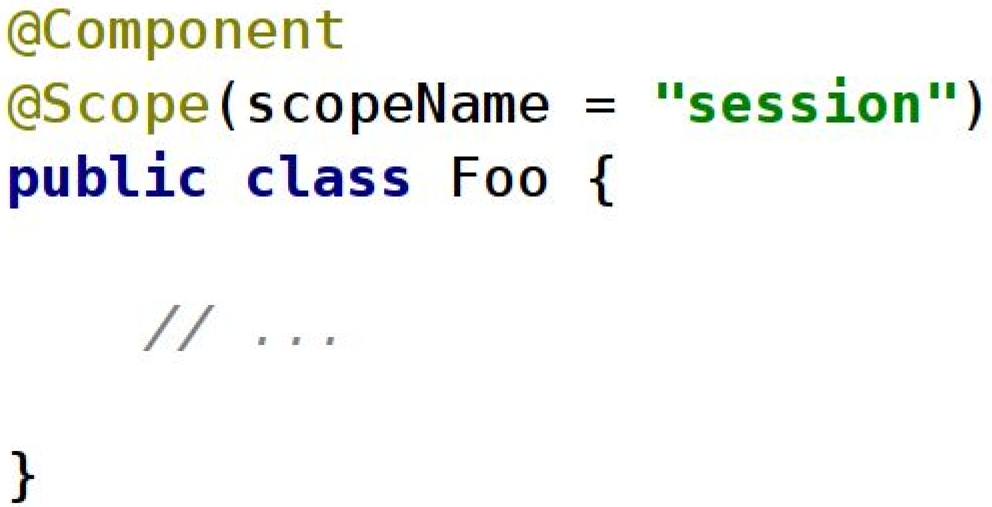

```java
@Component
@Scope(scopeName = "session")
public class Foo {

    // ...

}
```

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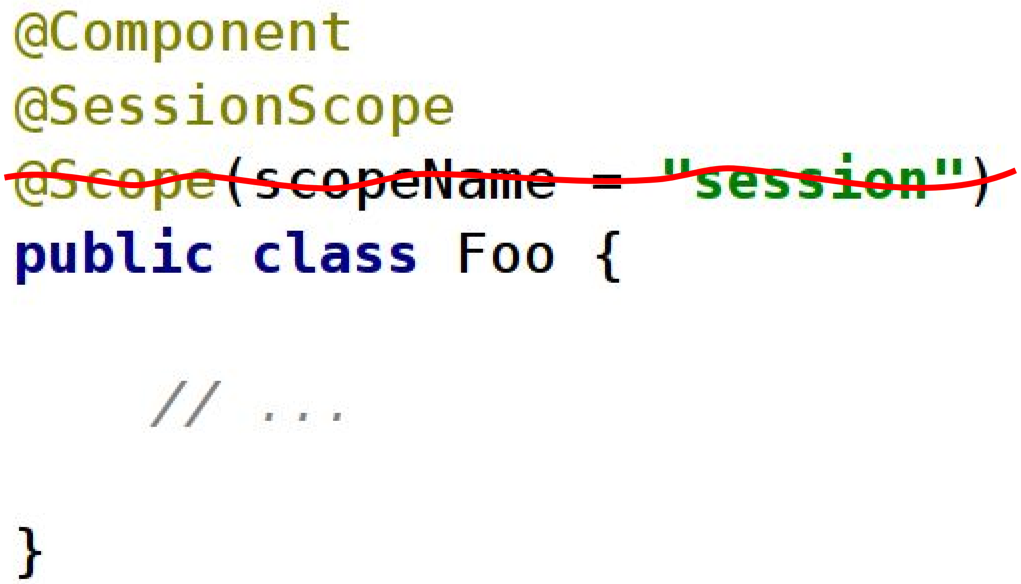

```
@Component
@SessionScope
~~@Scope(scopeName = "session")~~
public class Foo {

    // ...

}
```

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@RequestAttribute

@SessionAttribute

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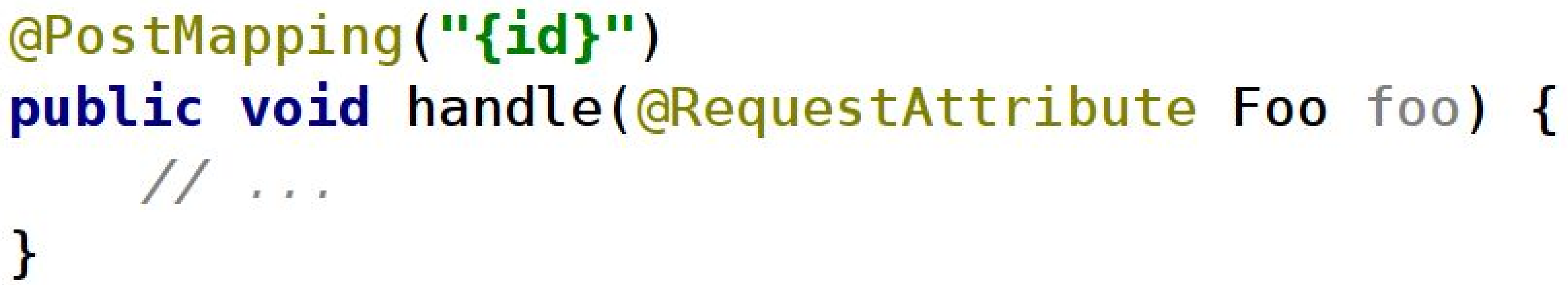

```java
@PostMapping("{id}")
public void handle(@RequestAttribute Foo foo) {
    // ...
}
```

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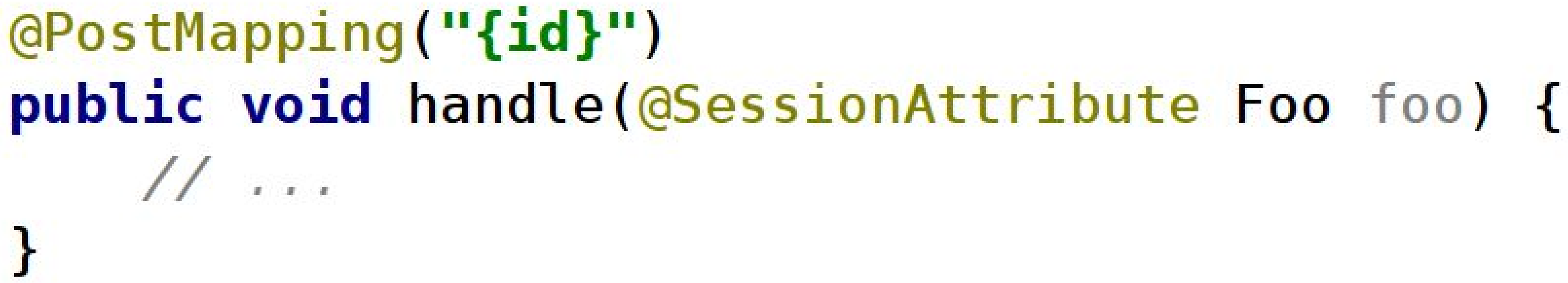

```
@PostMapping("{id}")
public void handle(@SessionAttribute Foo foo) {
    // ...
}
```

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Not to be confused with:

`@SessionAttributes`

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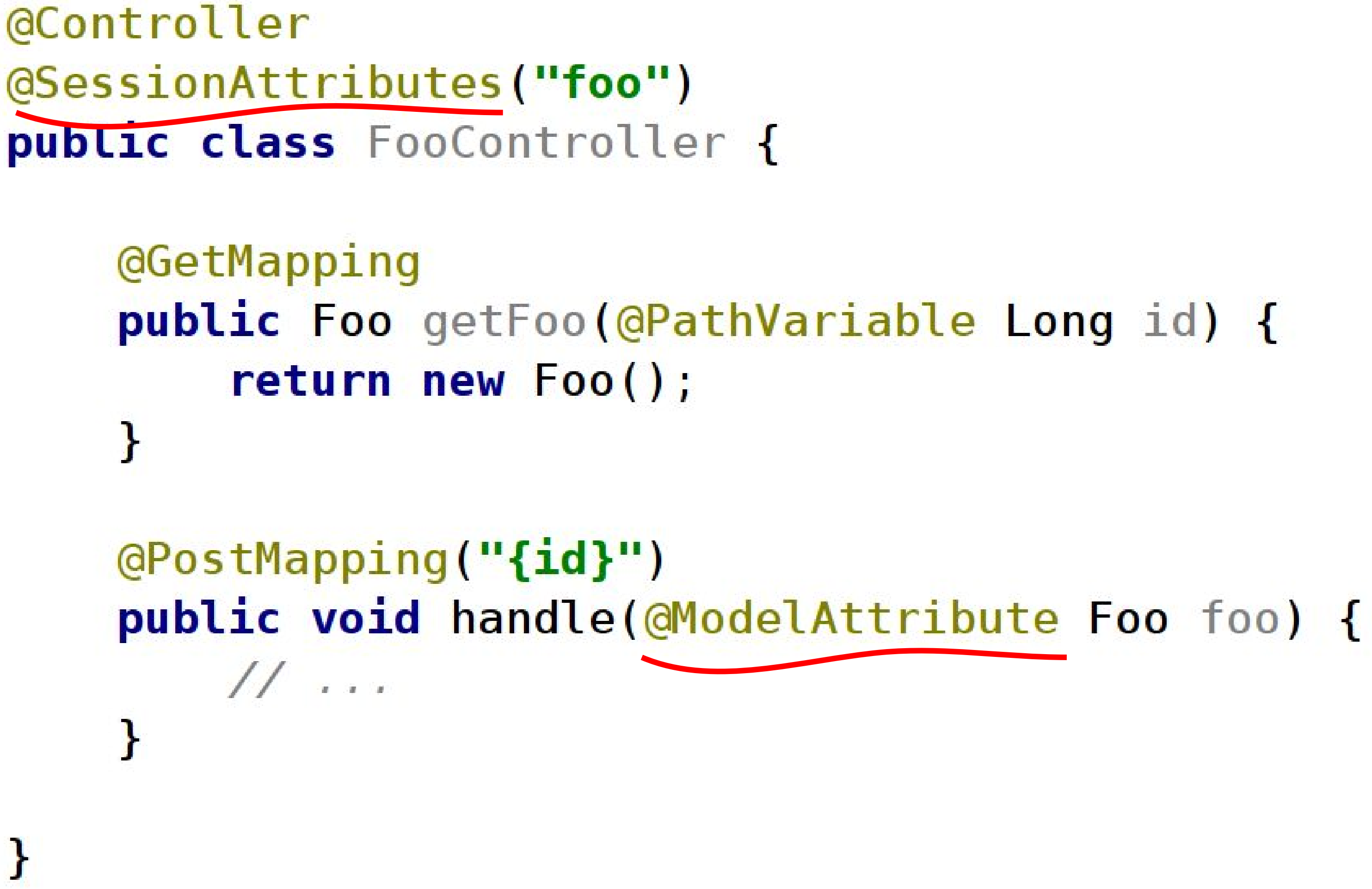

```
@Controller
@SessionAttributes("foo")
public class FooController {

    @GetMapping
    public Foo getFoo(@PathVariable Long id) {
        return new Foo();
    }

    @PostMapping("{id}")
    public void handle(@ModelAttribute Foo foo) {
        // ...
    }

}
```

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@RestControllerAdvice

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```
@ModelAttribute(binding=false)
```

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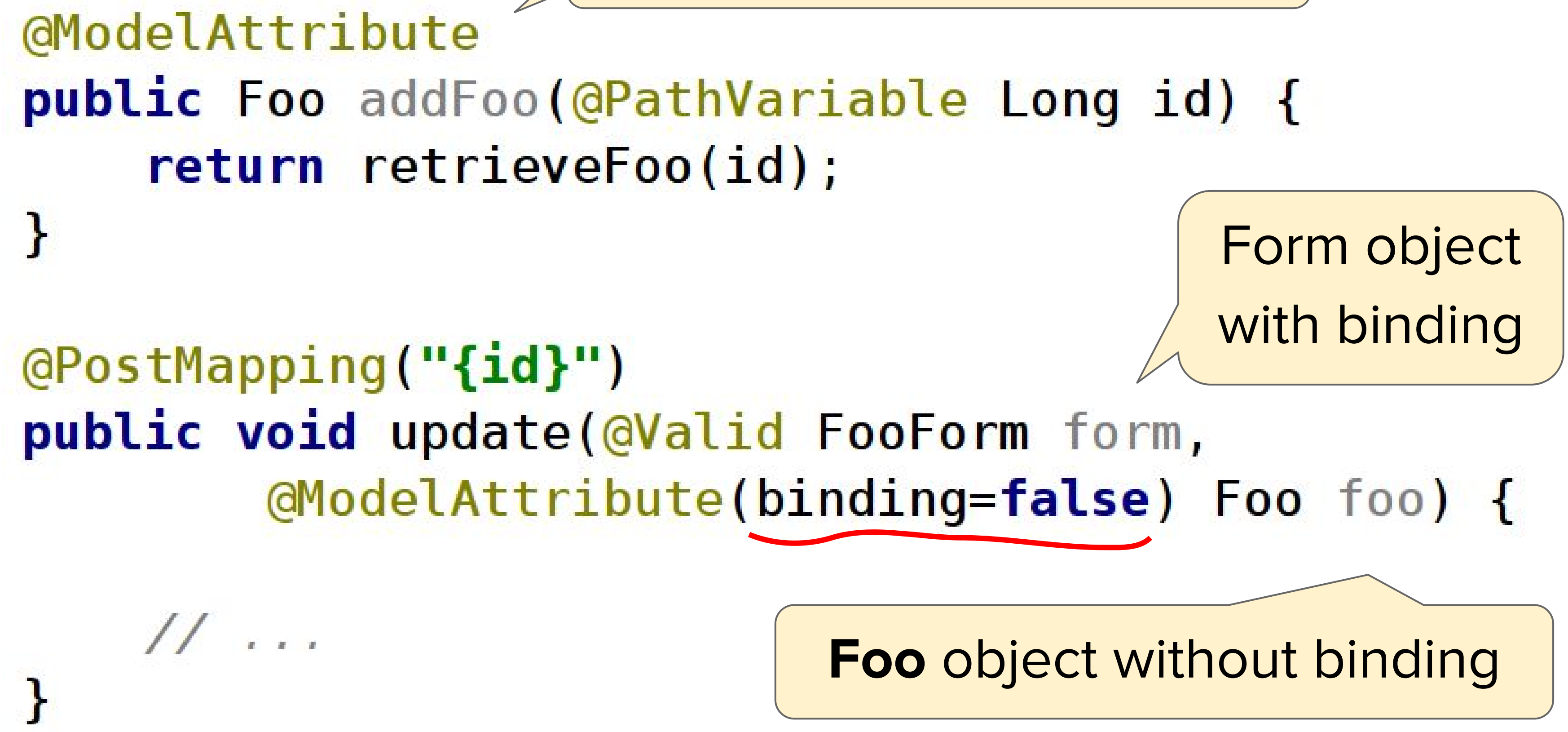
Pre-load **Foo** in the model



```
@ModelAttribute
public Foo addFoo(@PathVariable Long id) {
    return retrieveFoo(id);
}

@PostMapping("{id}")
public void update(@Valid FooForm form,
        @ModelAttribute(binding=false) Foo foo) {

    // ...
}
```

Form object with binding

Foo object without binding

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HTTP OPTIONS, HEAD

automated handling

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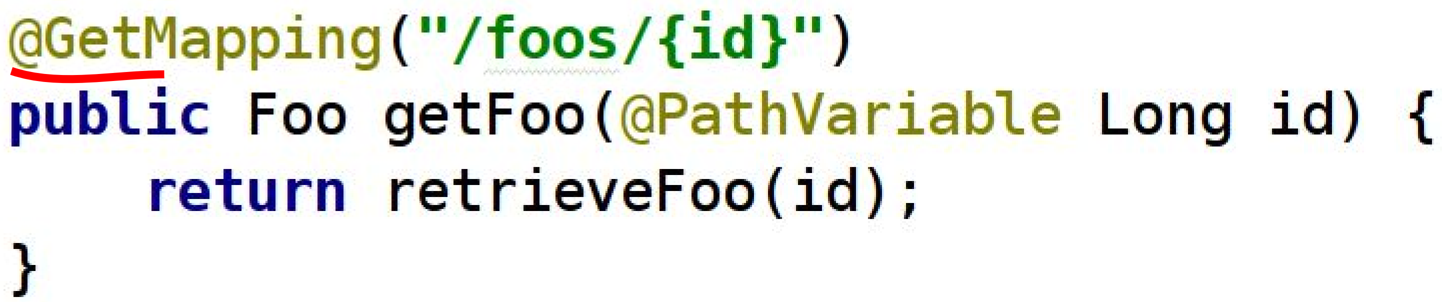
```
curl -v -X OPTIONS http://localhost:8080/foos/123

< HTTP/1.1 200 OK
< Server: Apache-Coyote/1.1
< Allow: GET,HEAD
< Content-Length: 0
```



```java
@GetMapping("/foos/{id}")
public Foo getFoo(@PathVariable Long id) {
    return retrieveFoo(id);
}
```

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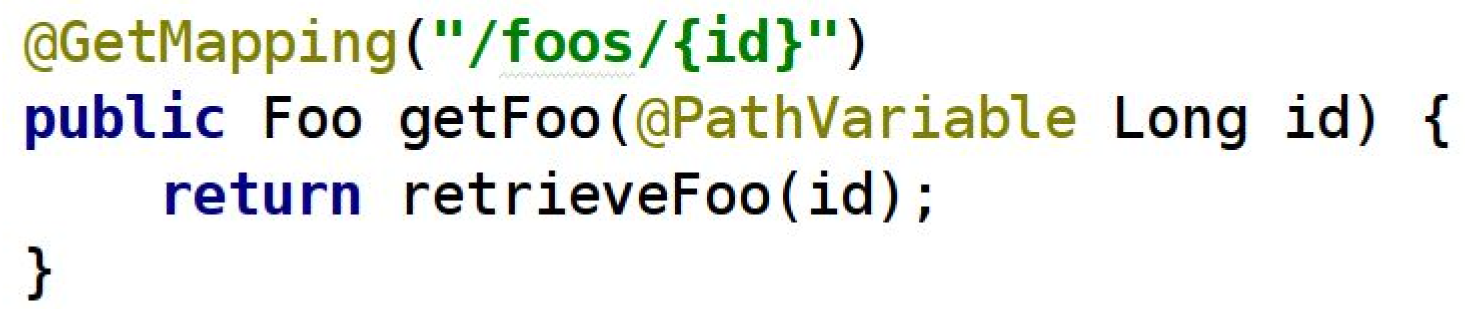
```
curl --head http://localhost:8080/foos/123

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: application/json;charset=UTF-8
Content-Length: 155
```



```java
@GetMapping("/foos/{id}")
public Foo getFoo(@PathVariable Long id) {
    return retrieveFoo(id);
}
```

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ForwardedHeaderFilter

Complements existing support for “X-Forwarded-*” in [Mvc | Servlet] UriComponentsBuilder

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RestTemplate

default URI variable values

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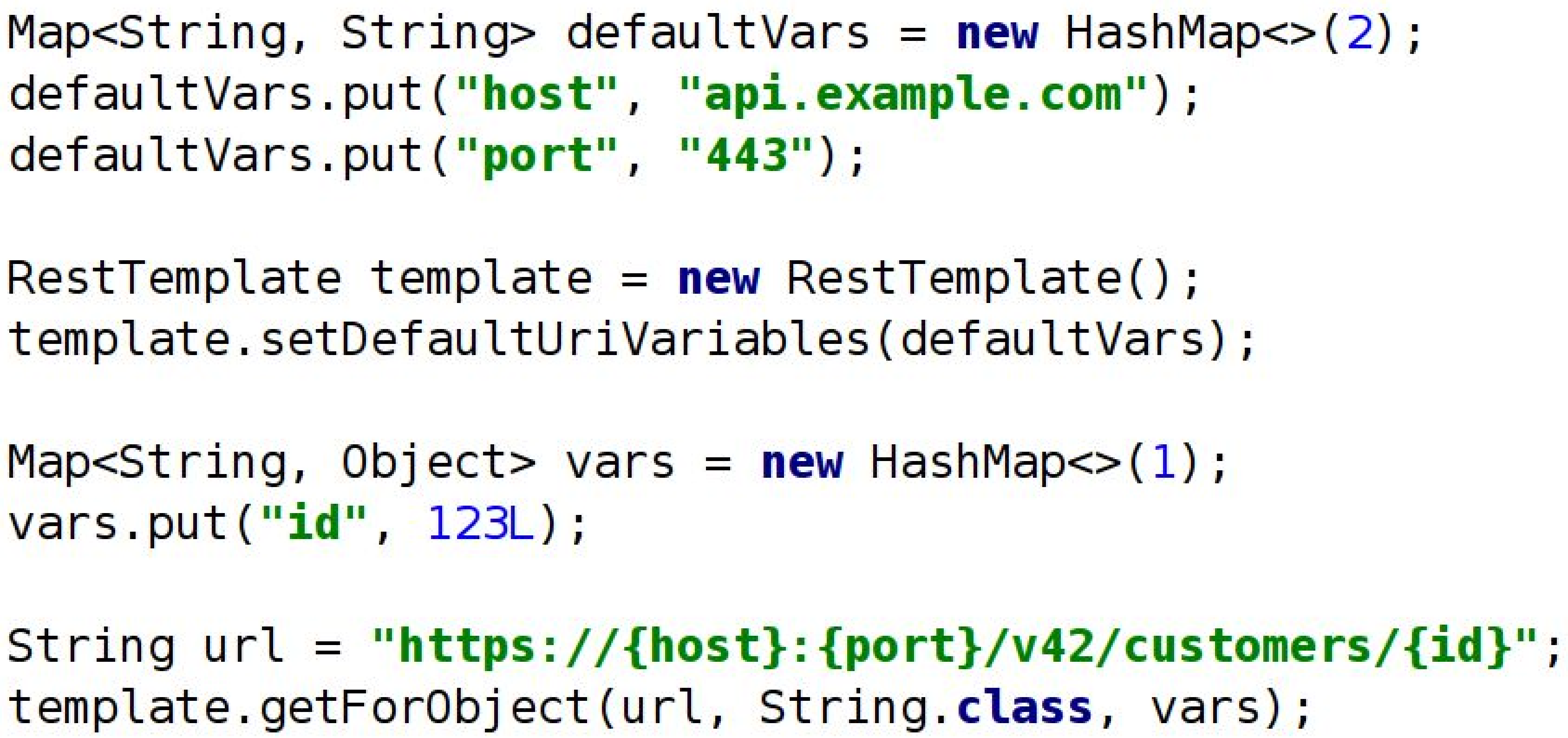

```
Map<String, String> defaultVars = new HashMap<>(2);
defaultVars.put("host", "api.example.com");
defaultVars.put("port", "443");

RestTemplate template = new RestTemplate();
template.setDefaultUriVariables(defaultVars);

Map<String, Object> vars = new HashMap<>(1);
vars.put("id", 123L);

String url = "https://{host}:{port}/v42/customers/{id}";
template.getForObject(url, String.class, vars);
```

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Client Mock REST Tests

expected count + order of requests

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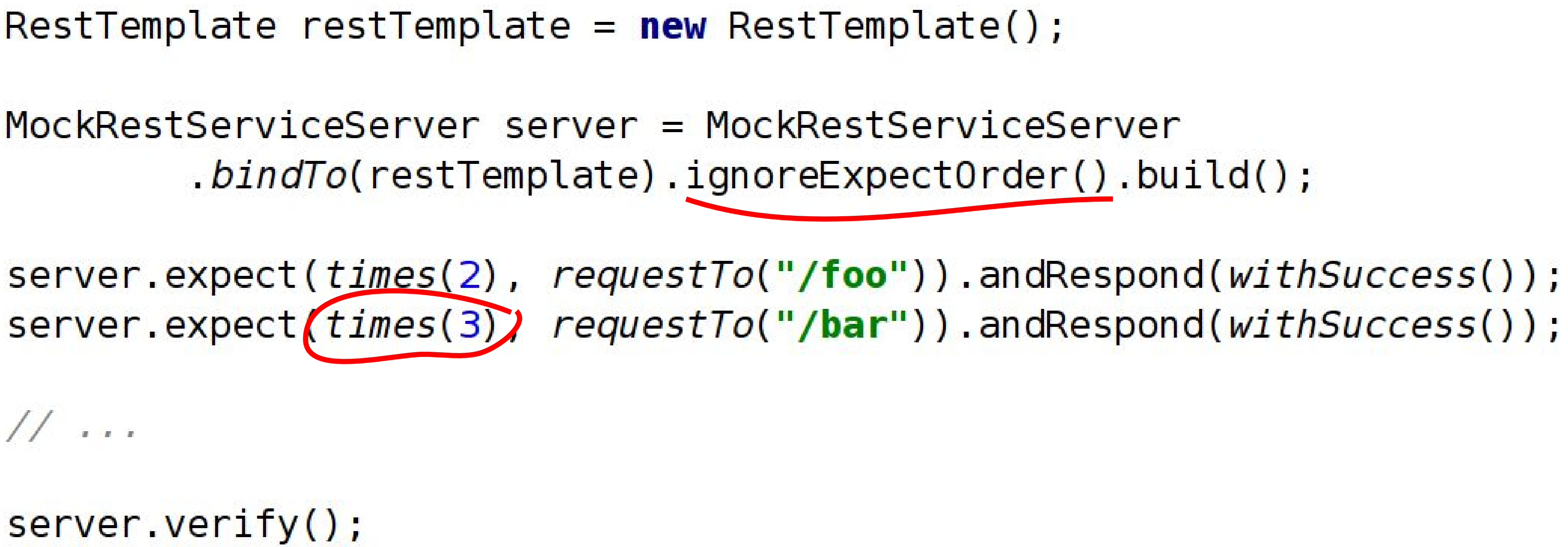

```
RestTemplate restTemplate = new RestTemplate();

MockRestServiceServer server = MockRestServiceServer
        .bindTo(restTemplate).ignoreExpectOrder().build();

server.expect(times(2), requestTo("/foo")).andRespond(withSuccess());
server.expect(times(3), requestTo("/bar")).andRespond(withSuccess());

// ...

server.verify();
```

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Spring Framework 5

Spring Web Reactive

Lambda-style HTTP routing and processing

HTTP/2

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Thank You

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