# Reactive Programming In Spring



SDC: WOB

by Volkswagen Aktiengesellschaft

Benjamin Glusa

I&I SDC @ HOME - 2020-04-17

## 

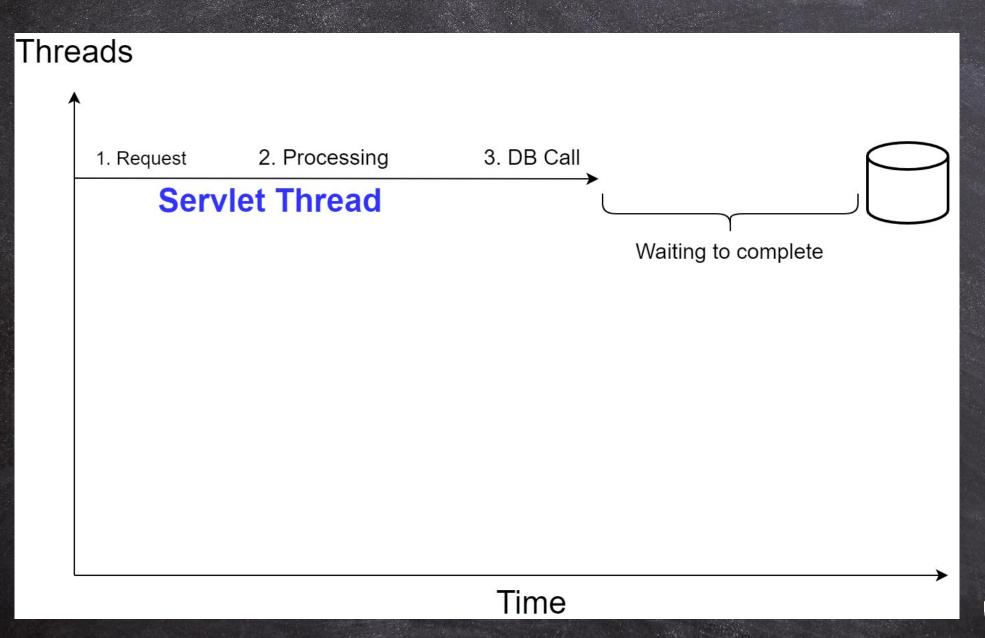


```
@RestController
public class MyRestController {
    @Autowired
    private UserRepository userRepository;
    @GetMapping("/get/user/{id}")
    public User getUser(@PathVariable String id) {
        return userRepository.findUser(id);
```

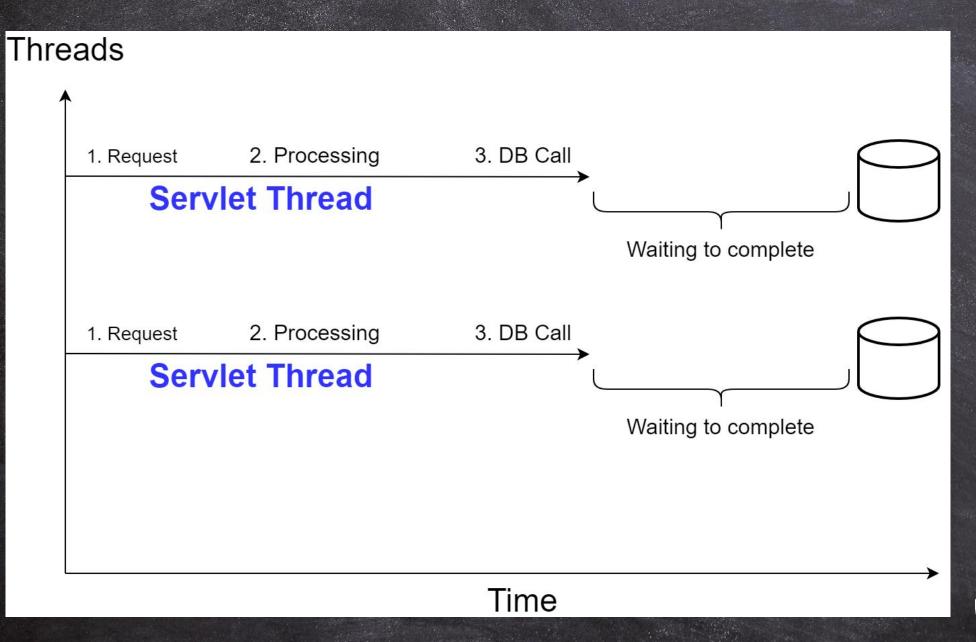


### Threads 2. Processing 3. DB Call 1. Request Waiting to complete Time

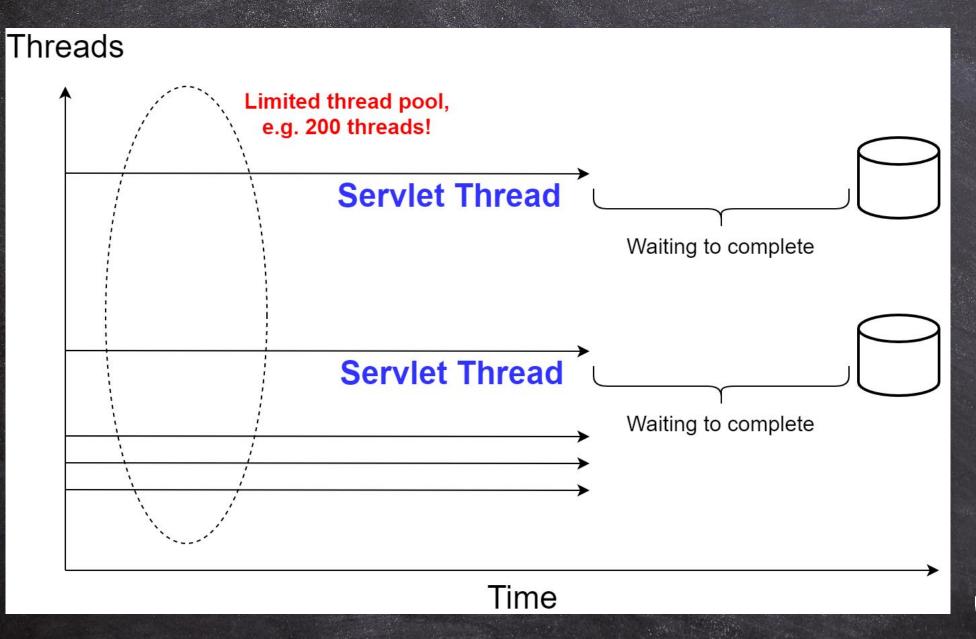














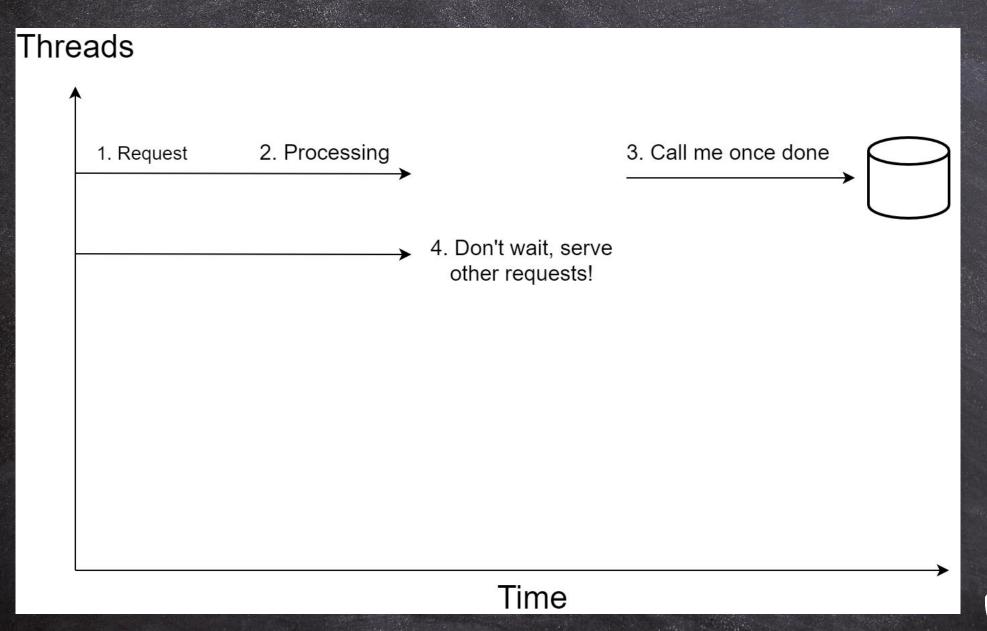
#### **Why Summary**

We want our apps to scale independent of the number of cpu threads!



#### What can we do?







#### Threads 2. Processing 3. Call me once done 1. Request **Servlet Thread** 4. Don't wait, serve other requests! 6. Send back response 5. Ready with Data **Any Free Thread** Time



#### Threads **Event Loop** Limited Tread Pool **DB** Driver Delegate all IO Operations Time



#### Threads **Event Loop DB** Driver 1 Thread per CPU Core **No Thread Switches** Delegate all More efficient use of CPU More concurrent requests IO Operations



#### How?

super easy barely an inconvenience

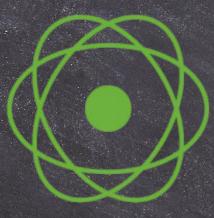




Spring



Spring Boot



Reactor



## Demo

#### It's time to code!

This is the part that never goes wrong...



Questions? Statement?
Wanna say hello?
こんにちは



#### Many thanks

- ... to the Spring Team
- ... to the audience for your interest and participation

#### Want More?

Check out Josh Long and Sébastien Deleuze on YouTube and Twitter



# LET'S INNOVATE @SDC:WOB

