

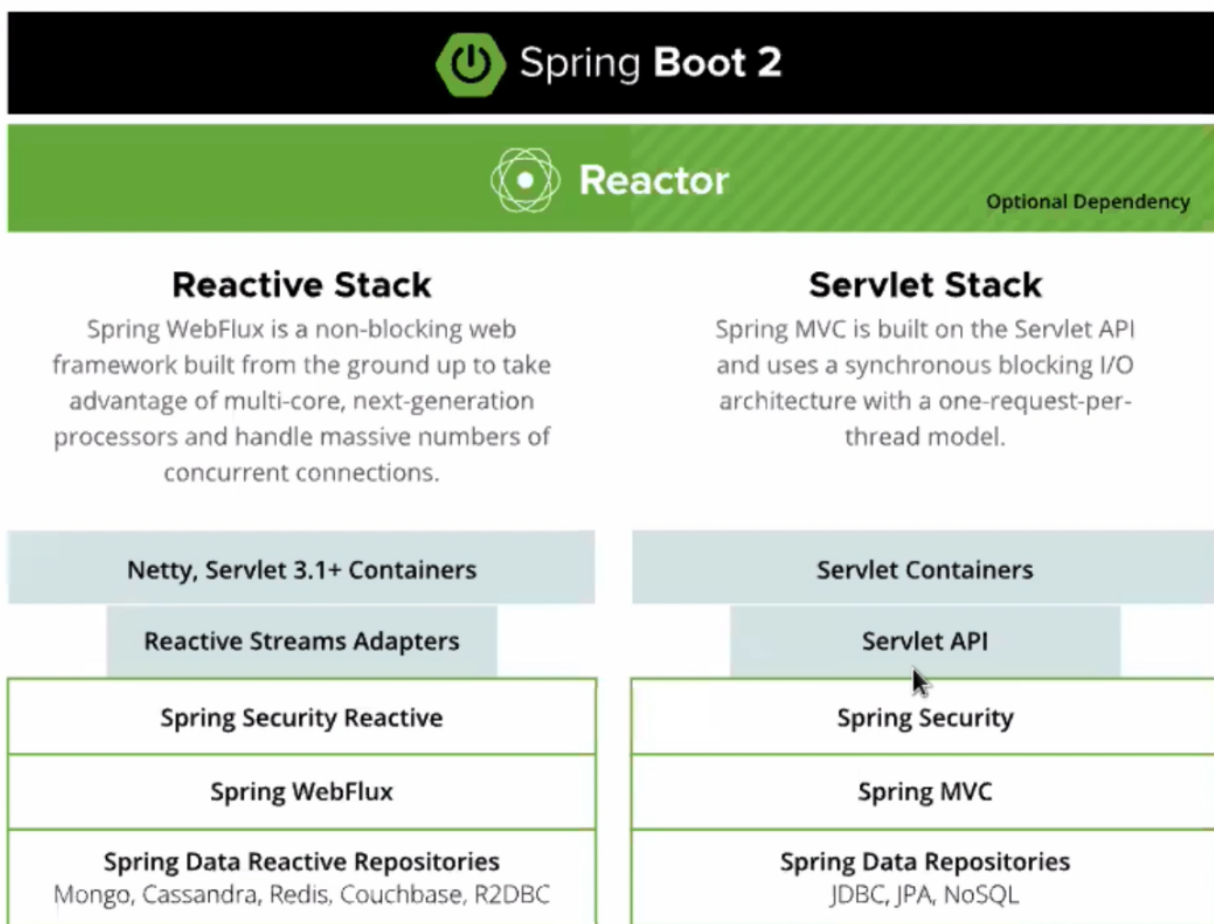
Spring - Feb 24

Spring at the beginning, only support IOC and AOP

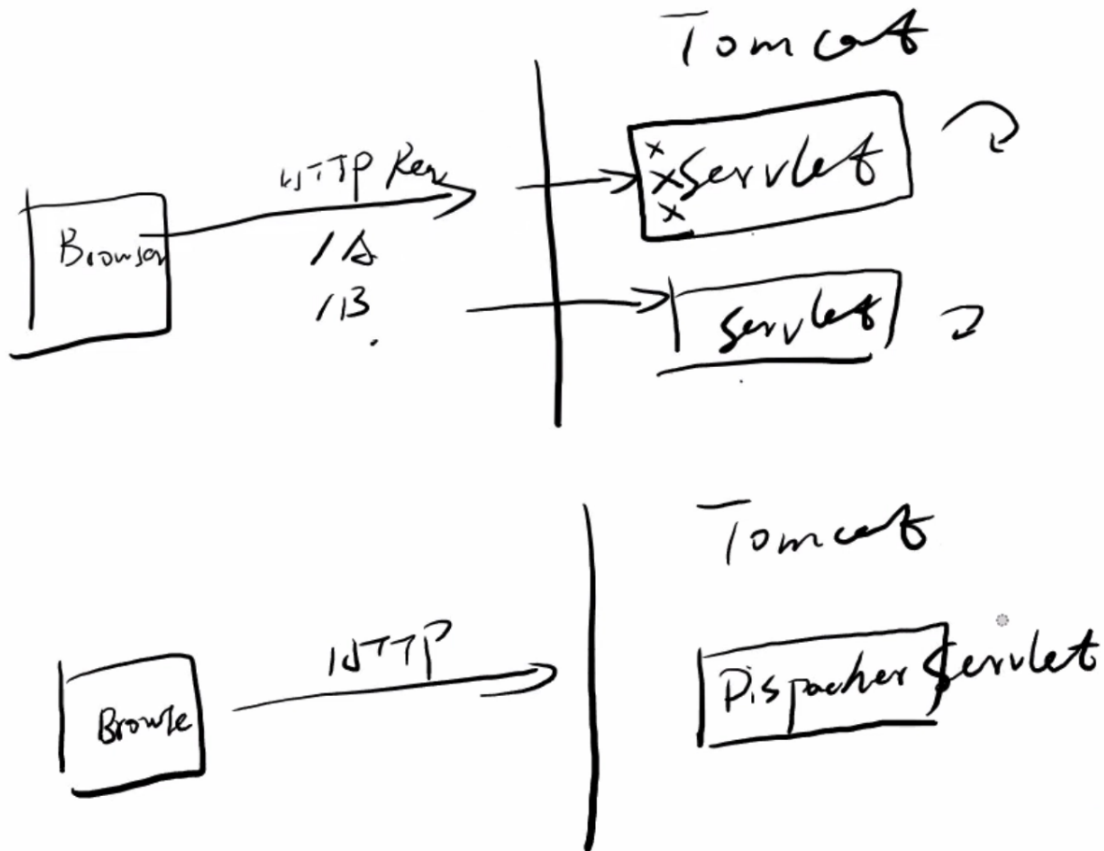
Spring MVC introduces MVC structure/framework

Spring MVC does not create MVC project, just use to create RESTful service.

Web service doesn't use MVC



Servlet vs. Spring



Spring will re-define a Dispatcher Servlet to distribute http requests to different controllers

```
//demo

@PostMapping("/register/guest")
public void addGuest(@RequestBody User user) {
    registerService.add(user, UserRole.ROLE_GUEST);
}

@PostMapping("/register/host")
public void addHost(@RequestBody User user) {

    registerService.add(user, UserRole.ROLE_HOST);
}
```

Difference between Web Application vs. Web Server

1. A web server is a server that serves web pages to users via http.
2. A web application is one program that supports an individual business logic.
3. A web server can host multiple web applications (Job recommendation, Social Network, etc.)

A: @Controller for return page

@RestController for return data

Data Format:

csv, JSON, XML

Json:

Json :

```
{ "k": "v", "k1": 123, "k2": { "k3": 4 } }  
[ { }, { }, { } ]  
[ 1, 2, 3 ]  
[ "s", "s" ]
```

Jackson Third-party Framework

used to convert Java → Json and Json → Java

How do we design API?

public-apis repo
Stockdata.org

CRUD operations

GET, POST, PUT/PATCH and DELETE

OpenAPI Specification (guideline, just documentation)

used to design RESTful API

URL vs. URI

I: Identifier

L: Locator

URL	URI
URL is used to describe the identity of an item.	URI provides a technique for defining the identity of an item.
URL links a web page, a component of a web page or a program on a web page with the help of accessing methods like protocols.	URI is used to distinguish one resource from other regardless of the method used.
URL provides the details about what type of protocol is to be used.	URI doesn't contains the protocol specification.
URL is a type of URI.	URI is the superset of URL.

URL: location and the identifier

URI: identify an entity/object, something on the server, instead of I want to do something from the server.