The introduction of Vue.js and SSH.

Group name: 9-up

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Abstract

Vue is a progressive framework for building user interfaces. Unlike other monolithic frameworks, Vue is designed from the ground up to be incrementally adoptable. The core library is focused on the view layer only, and is easy to pick up and integrate with other libraries or existing projects. SSH is an integrated framework of struts + spring + hibernate. It is a popular open source framework for web applications 16 years ago.

Vue.js--The Progressive JavaScript Framework

Historical Background

Vue was created by Evan You after working for Google using AngularJS in a number of projects. He later summed up his thought process: "I figured, what if I could just extract the part that I really liked about Angular and build something really lightweight."[15] The first source code commit to the project was dated July 2013, and Vue was first released the following February, in 2014. Most Significantly, the latest version of Vue.js is released at 2019 Feb 4 named Macross is the version 2.6
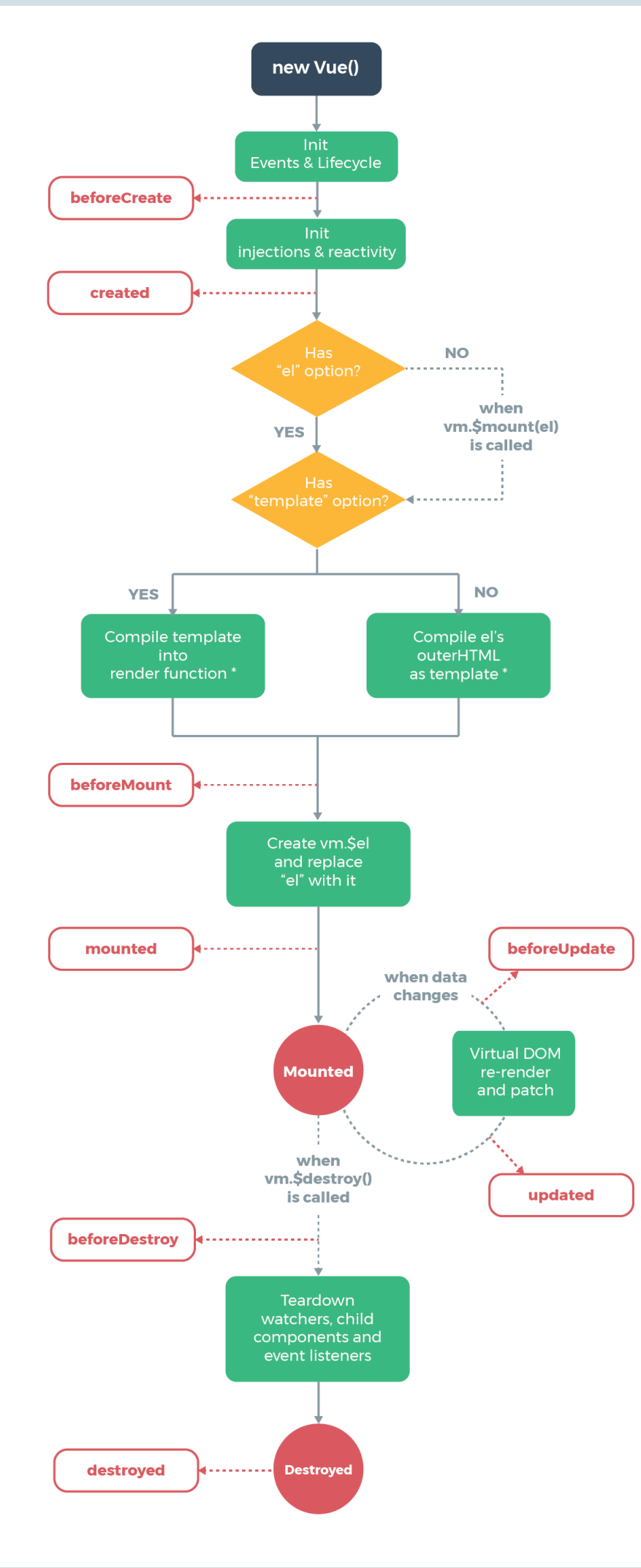
Brief Discription

Vue.js features an incrementally adaptable architecture that focuses on declarative rendering and component composition. Advanced features required for complex applications such as routing, state management and build tooling are offered via officially maintained supporting libraries and packages[13], with Nuxt.js as one of the most popular solutions[citation needed]Vue.js lets you extend HTML with HTML attributes called directives.[14] The directives offer functionality to HTML applications, and come as either built-in or user defined directives.

Life Cycle of Vue.js

Each Vue instance goes through a series of initialization steps when it's created - for example, it needs to set up data observation, compile the template, mount the instance to the DOM, and update the DOM when data changes. Along the way, it also runs functions called *lifecycle hooks*, giving users the opportunity to add their own code at specific stages.

Division of events in the lifecycle:
- 1) Lifecycle function during creation
  - beforeCreate: The instance has just been created in memory, at this time, the data and methods properties have not been initialized;
  - Created: The instance has been created in memory, at this time data and methods have been created, and the template has not yet been compiled;
- 2) Life cycle function during operation
  - beforeUpdate: This function is executed before the status update. At this time, the status value in data is the latest, but the data displayed on the interface is still old, because at this time, the DOM node has not been re-rendered;
  - Updated: This function is called after the instance is updated. At this time, the status value in data and the data displayed on the interface have been updated, and the interface has been re-rendered!
- 3) Life cycle function during destruction
  - beforeDestroy: Called before the instance is destroyed. In this function, the instance is still fully available.
  - Destroyed: Called after the Vue instance is destroyed. After calling this function, everything indicated by the Vue instance will be unbound, all event listeners will be removed, and all child instances will also be destroyed.

For example, the created hook can be used to run code after an instance is created:

```
new Vue({
  data: {
    a: 1
  },
  created: function () {
    // `this` points to the vm instance
    console.log('a is: ' + this.a)
  }
})
```

Pros&Cons

Pros:
Approachable,Versatile&Performant:
An incrementally adoptable ecosystem that scales between a library and a full-featured framework.

Cons:
The ecosystem is not complete; Less scalability; Less Plugins/Components
Common plugins are useful as they work with various other tools to make development easy. Vue.js does not have most of the common plugins, and that is the drawbacks of Vue.js.

SSH

Historrical

Slowly developed based on Java EE framework
Java EE
Java WEB :Servlet,JSP,JSP+Servlet+JabaBean(MVC)
EJB （Enterprise JavaBean） WebLogic,WebSpere
Struts2(MVC)+Hibernate(ORM)+Sprint(Ioc+AOP)=SSH
SpringMVC+MyBatis

Brief Discription

Official statement: SSH is an integrated framework ofstruts+spring+hibernate and a popular open source framework for web application.
SSH is not a framework, but a close combination of multiple frameworks (Struts, Spring, and Hibernate) to build flexible, easy-to-extend multi-tier Web applications.

SSH's main feature

1.In the presentation layer, the interactive interface is firstly realized through the JSP page, which is responsible for sending the Request and receiving the Response. Then, Struts delegates the Request received by the ActionServlet to the corresponding Action according to the configuration file (struts-config.xml).
2.In the business layer, the Spring IoC container that manages the service component is responsible for providing the Action with the business Model component and its collaborating object data processing (DAO) component to complete the business logic, as well as container components such as transaction processing and buffer pools to improve system performance and ensure data integrity.

In the persistence layer, it relies on Hibernate's object mapping and database interaction to process the data requested by DAO components and return the processing results.
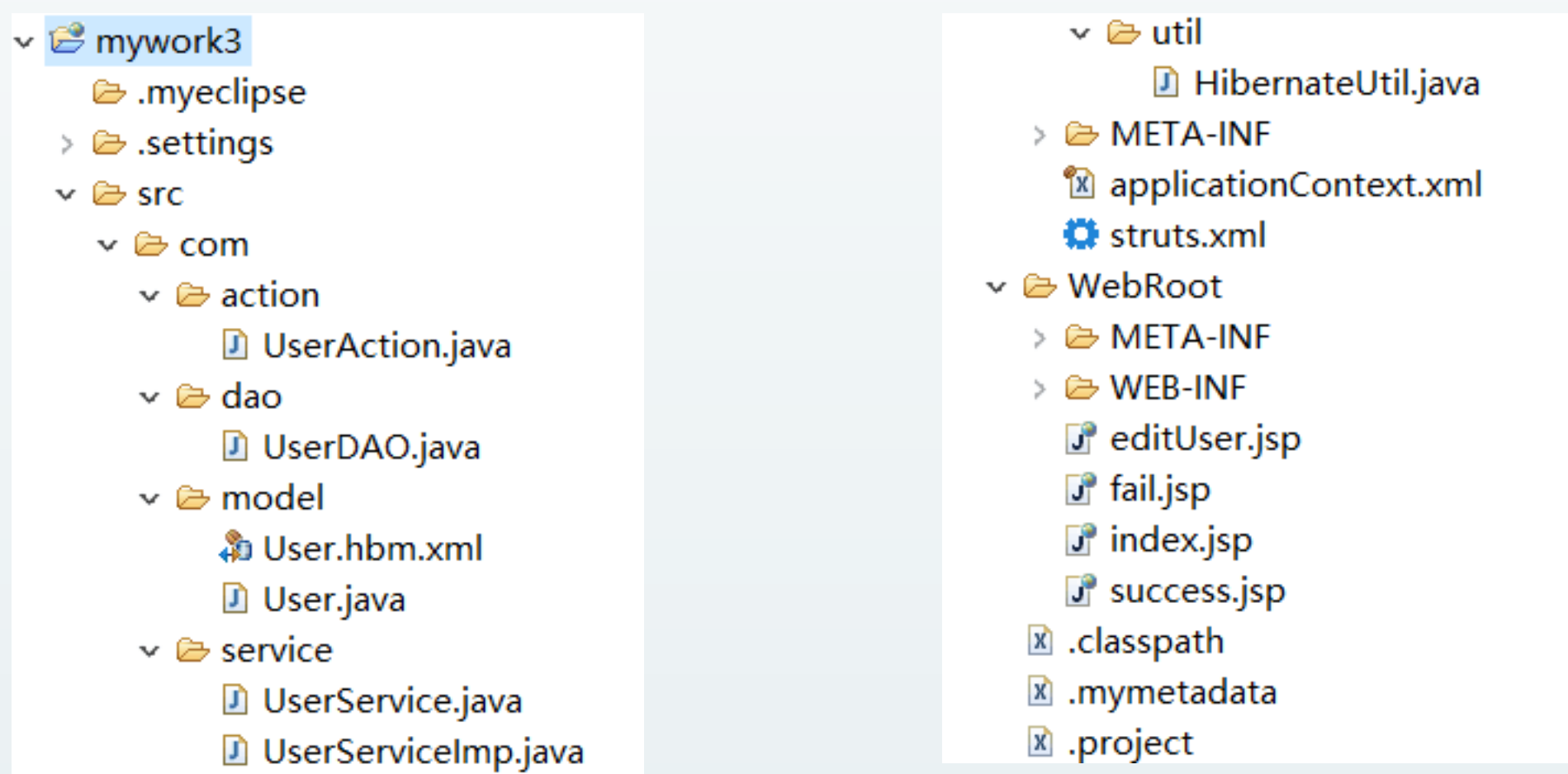
SSH's Pros

1.Good scalability
2.Good maintainability
3. Excellent decoupling

SSH's Cons

1.Spring relies on reflection, which affects performance
2. hibernate is weak in batch data processing

Code organization

Compare of frames

Angular vs React vs Vue

Angular and React and Vue are the most popular Front-end JavaScript Frameworkr

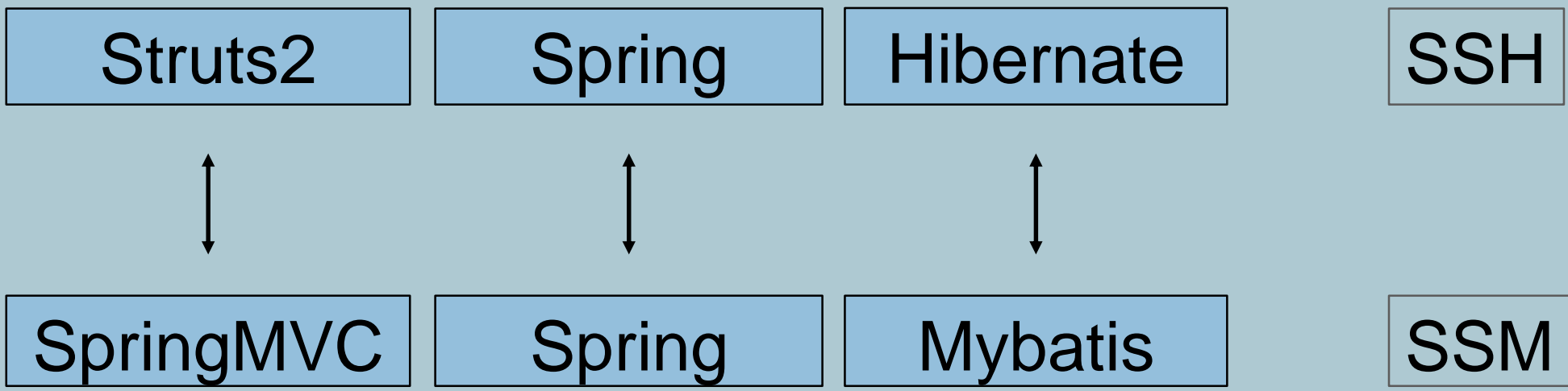|	React	ANGULAR	Vue.js
	A declarative, efficient, and flexible JavaScript library for building user interfaces.	One framework. Mobile & desktop.	A progressive, incrementally adoptable JavaScript framework for building UI on the web.
Npm weekly downloads	3 940 035	433 361	709 943
Easy to learn	Medium	Learn TypeScript	Yes
Coding speed	Normal	Slow	Fast
Startup time	Quick	Longer due to its large codebase	Quick
Complete web apps	Needs to be integrated with many other tools	Can be used on standalone basis	Requires third party tools
Data binding	Uni-directional	Bi-directional	Bi-directional
Rendering	Server side	Client side	Server side
Model	Virtual DOM	MVC	Virtual DOM
Code reusability	No, only CSS	Yes	Yes, CSS and HTML
When to use	Production, custom UI apps	Production, esp. enterprise apps with Material UI	Startups, production
Big companies	Facebook, Yahoo, Netflix, Atlassian, KhanAcademy	Netflix, Upwork, PayPal, TheGuardian	Facebook, Alibaba, Adobe, Grammarly, GitLab

Angular or React or Vue?
Angular is the most mature framework and a good choice for companies with large teams and developers.
The React job market is pretty good and a good option for developers who are just starting out with front-end JavaScript
frameworks, and developers who like flexibility.
Vue is the latest product and not supported by big companies. If you prefer simplicity and flexibility, Vue should be your choice.

SSH vs SSM

SSH and SSM are the popular MVC open source framework for enterprise-level development.

Struts2	Spring	Hibernate	SSH
SpringMVC	Spring	Mybatis	SSM

Compare Struct and spring-mvc
- 1.Struct is for a request at class level,SpringMVC is at method level.
- 2.springmvc configuration files are relatively few, easy to develop.

Compare Hibernate and MyBita
- 1.Hibernate optimization is relatively difficult to MyBitas.
- 2.MyBitas is fast to get started, and Hibernate is relatively difficult.
- 3.Relative to MyBaitas, Hibernate database portability is very good

SSH or SSM?
Although SSH is very heavy, it's good for understanding MVC model and even IOC, and quite suitable for practicing. However, SSM makes people feel fast when used. No matter OOP or AOP oriented programming, it gives people a kind of transparent pleasure.

Conclusion

As is known to all, Vue. Js is a JavaScript framework (Front-end JavaScript Frameworks), and SSH is a framework of Java (back-end framework)They all play a big role in helping you build your website.Vue.js features an adaptable architecture focusing on declarative rendering and component composition.SSH is a combination of multiple frameworks (Struts, Spring, and Hibernate) to build flexible, easy-to-extend multi-tier Web applications.
The answer to the debate about which framework you choose is that there is no right choice, because each framework has its own strengths and weaknesses.Depending on the project you're working on and your personal preferences, you will find a more appropriate framework for yourself.

References

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