

“Ari on tour” concert ticketing website

– Research document –



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1. Discovering the true power of Spring Boot and ReactJS.

Main question

How will I be using ReactJS and Spring Boot in my project?

Sub question

What is the benefit of developing my application with Spring Boot and React?

DOT Framework

Literature study, Good and bad practices, Community research, Prototyping

To answer this question, I will be making use of some research methods from the DOT Frameworks, but also practicing and actually working with ReactJS and Spring Boot will lead me to mastering and understanding the opportunities and benefits that the both of them provide in the development process.

I will be research information about React and Spring Boot to find general information and check out the best practices when working with the two. I will check out articles which will explain the capabilities of the two and by analyzing some examples I would get to understand the advantages of using them in my project. After researching about it, working on my project, and receiving feedback on my work, I began getting acquainted with Spring Boot and React.

Results and conclusion

I managed to put everything together and started to sense how Spring Boot and React work together. Both of them aim for making the code less complex and more flexible. The way the two combine together started to clear out while working on my project.

Recommendations

Research for the both of them extensively, but not only. Apply the researched knowledge into a small project combining both, this will make it clearer to understand what Spring Boot does and how React works.

2. Understanding dependency inversion and dependency injection.

Main question

How will I make use of dependency inversion and injection in my project?

Sub question

How will I be applying the SOLID design principles in my application?

DOT Framework

Good and bad practices, Community research, Design pattern research

I will be looking up to understanding how dependency injection, inversion, and the SOLID principles work, I will be researching on how examples of how the principles can be applied and map them to possible situations in my application. I will be analyzing good and bad

practices through code examples of how the patterns should be applied and then immediately go back to my own application to be able to apply all the acquired knowledge.

Results and conclusion

After researching extensively on each, how each of them acts and what they do, what are their aims, I checked out the structuring of my project. I managed to understand the design patterns and how they are applied in my project while documenting my Design document.

Recommendations

I would recommend first of all reading about each of the design patterns and then easily try to recognize their behaviors into a small project. Having an example made from scratch or somewhere where the patterns apply makes it easier to visualize the way they act.

3. Testing the website

Main question

How will I test my website?

DOT Framework

Unit test, Security test, Observation

During the development I will be performing Unit tests on chunks of my code to ensure that each piece is working just the way I expected it to. For security testing for example, when the website will have the Log in system ready, I will be able to perform penetration tests, to check its vulnerability. Also, when the website will be ready for testing, I am thinking that it would be great to have some users test the website. They will look on the website's functionalities with fresh eyes and this could lead to finding bugs that maybe I did not even observe until that point.

Results and conclusion

Understanding Unit testing and making use of it comes along with the modularized way of working throughout the project. It is a great way of ensuring for example that the functionality that I want to implement will work exactly as I want. Other types of testing will provide me with feedback on what works and what still needs to be improved in terms of security and usability.

Recommendations

I would recommend applying these 3 types of tests that I have just mentioned – security, observation, and unit tests, as they can provide a clear view on how the implementation works now and what still needs to be improved.

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