CI Preparation Guide

Design Patterns

 $\frac{\text{https://www.journaldev.com/1827/java-design-patterns-example-tutorial\#strategy-pattern https://www.journaldev.com/1827/java-design-patterns-example-tutorial\#template-method-pattern}{\text{pattern}}$

https://www.journaldev.com/1827/java-design-patterns-example-tutorial#builder-pattern https://www.journaldev.com/1827/java-design-patterns-example-tutorial#decorator-pattern

https://www.geeksforgeeks.org/singleton-design-pattern/

https://www.geeksforgeeks.org/abstract-factory-pattern/

https://dzone.com/articles/factory-method-vs-abstract

http://www.codespaghetti.com/java-design-pattern-interview-questions/

Code Smells

http://www.programmergirl.com/identifying-code-smells-java/

Code Coverage

https://www.atlassian.com/continuous-delivery/software-testing/code-coverage

Mocking

https://www.softwaretestinghelp.com/mockito-inteview-questions/ https://examples.javacodegeeks.com/core-java/powermockito/powermockito-tutorial-beginners/

https://www.youtube.com/watch?v=8S8o46avgAw

Unit & Integration Testing

https://www.toptal.com/java/unit-integration-junit-tests

SOLID

https://www.geeksforgeeks.org/solid-principle-in-programming-understand-with-real-life-examples/ https://deviq.com/solid/

Ports and Adapters

 $\frac{\text{https://www.thinktocode.com/2018/07/19/ports-and-adapters-architecture/}{\text{https://medium.com/@codespeaks/a-quick-and-practical-example-of-hexagonal-architecture-in-java-7334e7f2ad43}$

Git

 $\frac{https://www.atlassian.com/git/tutorials/comparing-workflows/gitflow-workflow}{https://www.freecodecamp.org/news/an-introduction-to-git-merge-and-rebase-what-theyare-and-how-to-use-them-131b863785f/}$

Jenkins

https://www.youtube.com/watch?v=7KCS70sCoK0

Sonar

https://www.youtube.com/watch?v=BuTlJiOP9Ug

Test Driven Development (TDD)

 $\underline{https://hackernoon.com/introduction-to-test-driven-development-tdd-61a13bc92d92}$

https://www.youtube.com/watch?v=y8TcPr73Bwo

https://www.youtube.com/watch?v=s9vt6UJiHg4

http://aspiringcraftsman.com/2012/04/01/tdd-best-practices-dont-mock-others/

https://github.com/testdouble/contributing-tests/wiki/Don't-mock-what-you-don't-own

Behavior Driven Development (BDD) & JBehave

https://www.youtube.com/watch?v=VS6EEUVZGLE https://www.toptal.com/freelance/your-boss-won-t-appreciate-tdd-try-bdd

https://www.youtube.com/watch?v=kNieSSoynW4

https://www.youtube.com/watch?v=eV7kBt89pWU

https://www.youtube.com/watch?v=dmqkCS8sPL4

DDD

https://www.youtube.com/watch?v=NNFJREcalcO

JWT

https://auth0.com/learn/json-web-tokens/

OAuth

https://www.youtube.com/watch?v=9960iexHze0

OWASP

https://sectigostore.com/blog/what-is-owasp-what-are-the-owasp-top-10-vulnerabilities/

Spring Security

https://www.youtube.com/watch?v=X80nJ5T'7YpE https://www.youtube.com/watch?v=Dbxzw0cpxBU

Exception Handling

https://stackify.com/best-practices-exceptions-java/ https://www.baeldung.com/exception-handling-for-rest-with-spring https://www.toptal.com/java/spring-boot-rest-api-error-handling

Spring Cloud

https://www.baeldung.com/intro-to-feign

https://nirajsonawane.github.io/2019/03/21/Simplifying-Microservices-Communication-

Using-Spring-Cloud-OpenFeign/

https://www.youtube.com/watch?v=aO3W-lYnw-o

https://www.youtube.com/watch?v=x1BROD-

buQg&list=PLVz2XdJiJQxz3L2Onpxbel6r72IDdWrJh

https://www.youtube.com/watch?v=rlS9eH5tEnY

Microservices

https://cloudacademy.com/blog/microservices-architecture-challenge-advantage-drawback/

https://microservices.io/patterns/refactoring/strangler-application.html

https://microservices.io/patterns/data/saga.html

https://microservices.io/patterns/microservice-chassis.html

https://livebook.manning.com/book/microservices-patterns/chapter-2/25

SSL/TLS/Certificates

https://www.youtube.com/watch?v=T4Df5_cojAs

Pivotal Cloud Foundry (PCF)

https://www.youtube.com/watch?v=IMM58syURi4 https://www.youtube.com/watch?v=ok0v450m07U https://www.youtube.com/watch?v=Mo14JCWcotk

Big O notation

https://www.baeldung.com/java-algorithm-complexity https://www.interviewcake.com/article/java/big-o-notation-time-and-space-complexity

Problem Solving (Problems on arrays, linked list, Strings etc.)

https://www.geeksforgeeks.org/subarraysubstring-vs-subsequence-and-programs-togenerate-them/

https://www.geeksforgeeks.org/sum-of-all-subsequences-of-an-array/

https://www.geeksforgeeks.org/write-a-program-to-reverse-an-array-or-string/

https://www.geeksforgeeks.org/minimum-halls-required-for-class-scheduling/?ref=leftbarrightbar

https://www.geeksforgeeks.org/count-of-elements-on-the-left-which-are-divisible-by-currentelement/?ref=leftbar-rightbar

https://www.geeksforgeeks.org/sum-even-odd-elements-array/

https://www.geeksforgeeks.org/maximum-number-of-unique-values-in-the-array-afterperforming-given-operations/?ref=leftbar-rightbar

Other Important Topics

https://howtodoinjava.com/interview-questions/spring-mvc-interview-questions-withanswers/

http://tutorials.jenkov.com/java-concurrency/java-memory-model.html

http://tutorials.jenkov.com/java-concurrency/index.html

http://tutorials.jenkov.com/java-concurrency/deadlock.html

http://tutorials.jenkov.com/java-concurrency/deadlock-prevention.html

https://www.baeldung.com/java-executor-service-tutorial