1. **JAVA**

Datatypes

Conditions

Loop Control

Arrays

Methods

Static, Non Static Methods

Objects

Constructors

Inheritance

Encapsulation, Access Modifiers

Collections

Read-Write Files

Exception handling, try-catch-finally, throw and throws

enum

generiks

lambada

JSON java

CASTING

ASSERTS

Reflection

Immutable

Json parsing

Java properties files

**Java cources (Pluralsight/YouTube)**

[Java Fundamentals: The Java Language](https://app.pluralsight.com/library/courses/java-fundamentals-language)

[Java Fundamentals: The Core Platform](https://app.pluralsight.com/library/courses/java-fundamentals-core-platform)

[From Collections to Streams in Java 8 Using Lambda Expressions](https://app.pluralsight.com/library/courses/java-8-lambda-expressions-collections-streams)

JAVABRAINS: Java 8 Lambada Basics

1. **OOP**
2. **JAVA PROPERTIES FILES**

Pluralsight: [Java Fundamentals: Object-oriented Design](https://app.pluralsight.com/library/courses/java-fundamentals-object-oriented-design)

[link](https://www.youtube.com/watch?v=ElzBSy9-NFA&list=PLwwk4BHih4fg8e6-dUMveq3LIDZouwoqz)

1. **JAVA WEB**

Rest API(JAX-RS)

SOAP WEBSERVICES(JAX-WS)

Jersey Framework

Java servlets

Servlets containers(Tomcat, Jetty)

[Java WEBSOCKET](http://dev-blogs.com/jetty-websockets/)

**Java web cources(Pluralsight/YouTube)**

[Java EE: Programming Servlets](https://app.pluralsight.com/library/courses/java-ee-programming-servlets)

[Java Web Fundamentals](https://app.pluralsight.com/library/courses/java-web-fundamentals)

RESTFul Services in Java using Jersey

JAVABRAINS: [JSPs and Servlets](https://www.youtube.com/playlist?list=PLE0F6C1917A427E96)

JAVABRAINS: SOAP services

JAVABRAINS: Rest services

1. **ISTQB**
2. **TESTING TOOLS**

Top 10 Test Management tools for 2017.

<https://geteasyqa.com/blog/best-test-management-tools/>

Best tools for Mobile testing:

<https://geteasyqa.com/blog/best-mobile-testing-tools/>

Best Tools for Performance Testing:

<https://geteasyqa.com/blog/best-tools-load-testing/>

Best Tools for Automation testing:

<https://geteasyqa.com/blog/best-automation-testing-tools/>

1. **JPA ORM (HIBERNATE)**
2. **JAXB**

[YouTube course](https://www.youtube.com/watch?v=Yv2xctJxE-w&list=PL4AFF701184976B25)

1. **MAVENЫ**
2. **PROJECT STRUCTURES(MULTI MODULE)**

[course](https://www.youtube.com/watch?v=al7bRZzz4oU&list=PL92E89440B7BFD0F6)

1. **GIT**
2. **SOAP UI**
3. **JENKINS**
4. **CUCUMBER**

Set up Cucumber

Cucumber Selenium Java Test

Feature Files

JUnit Test Runner Class

Gherkin Keywords

Step Definition

Cucumber Options

Data Driven Testing in Cucumber

1. **JUNIT**

Introduction to JUnit

Creating and running JUnit test suite

Using JUnit Annotations

@Before/@After VS @BeforeClass/@AfterClass Difference

Ignoring JUnit Test from execution

JUnit Timeout And Expected Exception Test

Selenium Test report Generation using JUnit

UI ELEMENTS MAPPING:

UI map repository

Locating Element By Tag Name

Locating Element By Name

Locating Element By Link Text Or Partial Link Text

Locating Element By cssSelector

Locating Element By XPath

TEST DATA INJECTION:

Test data repositories

1. **HATMCREST**
2. **REGEX**
3. **SQL**
4. **XML,XSD,FTL**
5. **SELENIUM**

Introduction to Selenium WebDriver

Download and install Selenium Webdriver with Eclipse

Creating And Running First Selenium Script In Firefox

Running Selenium Test In Google Chrome Browser

Running Selenium Test In Internet Explorer Browser

SELENIUM WEBDRIVER II:

Opening And Maximizing Firefox Browser And Opening URL

Clicking On Button

Submitting Forms

Store Text Of Element

Typing Text In To Text box

Get Page Title Of Software Web Application

Get Current Page URL

Selecting/Deselecting Value From Dropdown Or Listbox

Capturing Entire Page Screenshot

Generating Mouse Hover Event

Handling Multiple Windows

Verify Element Is Enabled Or Not

Enable/Disable Element

Handling Alert, Confirmation and Prompt popup

Handle Unexpected Alert Of Software Web Application

Highlighting element Of Software Web Application

Verify Element Present

Explicit Wait - For Element

Explicit Wait - For Text

1. **IBMMQ/RABBITMQ**
2. **PATTERNS DESIGN(**[**link**](https://www.youtube.com/watch?v=G58ribEe0Bw&list=PLwwk4BHih4fh_aJET4PF-5Ok5iK_xgiRE)**)**
3. **DEPENDENCY INJECTION**
4. **ASPECT ORIENTED PROGRAMMING**
5. **SPRING**
6. **APACHE CAMEL**
7. **LINUX CMDs(**[**link**](https://www.youtube.com/watch?v=YHFzr-akOas&list=PLS1QulWo1RIb9WVQGJ_vh-RQusbZgO_As)**)**
8. **ALGHORITMS**

[List of alghoritms](https://vk.com/page-54530371_48795618)

Books:

Генри С. Уоррен - Алгоритмические трюки для программистов, 2-е издание

Дасгупта С., Пападимитриу Х., Вазирани У. - Алгоритмы

Дж. Макконелл - Анализ алгоритмов. Вводный курс, 2-е дополненное издание

Р. Лафоре - Структуры данных и алгоритмы в Java, 2-е издание

Р. Седжвик, К. Уэйн - Алгоритмы на Java, 4-е издание

Т. Кормен, Ч. Лейзерсон, Р. Ривест, К. Штайн - Алгоритмы. Построение и анализ. Издание 3-е

Т. Кормен - Алгоритмы. Вводный курс

Courses:

[Course youtube](https://www.youtube.com/watch?list=PLwwk4BHih4fjIT5cT4i1s93b99aJScUGB&v=8JlTwMg1dyw)

[coursera](https://www.coursera.org/learn/algorithms-part1)

1. **CRYPTING(**[**link**](https://www.coursera.org/learn/crypto)**)+**
2. **CODYROVKI**
3. **SQL INJECTIONS**
4. **NODEJS**
5. **REACT**
6. **ANGULAR**