### Java Api And Lib Overview

# read: https://github.com/akullpp/awesome-java

read: https://dzone.com/articles/20-useful-open-source-libraries-for-java-programme

# **Apache Commons**

Java Collections Framework extension, Mathematics and Statistics components., JDBC Helper, uUtilities

# **Commons Math**

mathematics library from Apache Commons. It features mathematics and statistics components

## LWJGL 3

is a cross-platform library for designing Java games.

# **Jsoup**

Java HTML parser library which parses HTML to the same DOM just like modern browsers.

# Webmagic

excellent Web crawler library that covers the complete life-cycle of crawler: downloading, URL management, content extraction, persistence.

## **SWT**

open-source widget library designed for Java. It provides a portable, efficient access to the user interface elements of the operating system

# Apache Log4j

ogging library for Java which allows logging at runtime without modifying the application binary

### SLF4J

logging

## Log4j 2

logging

## **Jackson**

standard JSON parser library for Java (and other format like BSON, AVRO, CBOR, CSV, XML and more)

# Gson

minimalistic library and only supports JSON. It offers Data Binding, extensive Generic support, flexible customization

# **JAXB**

XML support, including data binding.

# **JFreeChart**

free Java chart library

# Google Guava

Java utilities

### **Hibernate ORM**

object/relation mapping library

# **JavaFX Third Party Tools and Utilities**

https://www.oracle.com/java/technologies/javafx/jstack.html

#### Rx.Java

**Reactive Extensions** 

# **OkHttp**

s the simplest yet powerful HTTP client library in the JVM

# **MyBatis**

to map Java Object to Stored Procedure or SQL statements.

### **HikariCP**

s a very fast yet lightweight Database connection pooling in JVM

#### Lombok

generate getters, setters, hashcode, equals, toString

#### **VAVR**

library that can fill the gap of the functional programming features in Java. It provides persistent collections, functional abstractions for error handling, concurrent programming, pattern matching, and much more.

#### JIB

Dockerizing a Java application to build an optimized Docker and OCI image

### **Tink**

Tink offers cryptographic functionalities via different primitives. It provides symmetric key encryption, streaming symmetric key encryption, deterministic symmetric key encryption, digital signature, hybrid encryption, and many other encryption functionalities.

### **ANTLR 4**

It is a powerful parser generator for reading, processing, executing, or translating structured text or binary files. access to language processing primitives like lexers, grammars, parsers

#### **Caffeine**

high-performance, near-optimal caching library based on Java

### **Metrics**

Metrics from the Dropwizard framework is a simple yet compelling Java library that provides insight into your application and JVMs KPI, e.g., rate of events, pending jobs, service health check, and more.

### gRPC-Java

a modern Remote Procedure Call system in 2015.

# Java WebSocket

WebSocket is a bi-directional communication protocol over a single TCP connection. Java WebSocket is a barebone WebSocket server and client implementation in Java

## **JJWT**

JSON Web Token (JWT) is the de-facto Authorization and secure Information exchange format in modern software development.

# **Swagger-Core**

OpenAPI is the specification for machine-readable interface files for describing, producing, consuming, and visualizing RESTful web services.

# **Springfox**

Springfox library can automatically generate REST API documentation from the source code.

# **Async Http Client**

offers asynchronous HTTP response processing. As a bonus feature, this library also supports the WebSocket protocol.

# **Apache HTTPComponents**

toolset of Java components focused on HTTP and associated protocol

# Liquibase

supports tracking, version controlling, and deployment of SQL database changes in Java Applications.

#### **JavaCV**

computer vision and machine learning software library

### Wiremock

Wiremock is a simulator for REST API and enables developers to write code against an API that does not exist or incomplete.

### **MapStruct**

you often need to convert one type of POJO to another type of POJO.

#### **AssertJ**

TDD for test in Junit

### **Jhipster**

application generator, made for modern full-stack developers

List of 100 java libs

 $https://docs.google.com/spreadsheets/d/1QXw5TILFQCBoB0wxhNAoKabRbUm9C6TE3mD260S\_gXY/edit\#gid=0$ 

## **Spock**

Spock is a BDD-style developer testing and specification framework for Java and Groovy

applications.

#### Retrofit

Retrofit turns your HTTP API into a Java interface.

#### **MBassador**

MBassador is a light-weight, high-performance event bus implementing the publish subscribe pattern.

### **Dropwizard**

This light-weight framework lets you complete your application very fast because of it's out of the box support for advanced configurations, logging, application metrics and much more. You can create RESTful web applications that give high performance, are stable and reliable.

#### Grails

Grails is an easy to learn full-stack framework much suitable for those who are just beginning their programming career

#### **ATG**

ATG is a web commerce platform written in Java. It is a customizable and configurable framework, particularly useful for websites related to e-commerce

### **OpenXava**

A low-code platform for developing web applications in a fast manner

#### Vert.X

Vert.x is an event-driven application framework that uses many languages like Java, JS, Groovy, Scala and more. It is thus polyglot in nature. It relies upon the asynchronous programming model thus making the applications non-blocking and free from multi-threading.

### **Jersey**

Jersey is a web services framework to create RESTful services and supports JAX-RS APIs. It greatly simplifies the development of RESTful services through useful features and utility functions. Jersey provides a sort of abstraction layer so that developers need not worry about the low-level implementation of client-server communication and can concentrate on the main web service functionality.

#### **Drools**

Drools is a popular Business Rules Management System. It has a Business Rules Engine (BRE), authoring, a rules management application and runtime support for Decision and Notation models

#### Apachr Mina

Apache Mina is a network application framework with which developers can easily create highly

scalable and performant network applications. Whether you use TCP/IP, UDP, LDAP, NTP, DNS etc... or a custom protocol,

## **iText**

iText is a Java open source library used for the creation and manipulation of PDF files in Java

# **Tapestry**

s a component-based Java framework with which you can create scalable web applications. Its focus on reusable components makes it architecturally similar to JavaServer Faces and the Wicket framewor