Resources for Microservices and Business Domain Solutions for the Cloud Architect / Microservices Architect

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Whole Solutions for Microservices	Streams / Queues / Message brokers	Package Management / Build tools	Agile Sprint Planning / Bug Trackers	Storage of Packages / Deployments	CI / CD	Utilities
Spring Cloud	Apache Kafka	**Java:**	Jira	Artifactory	Jenkins	POSTMAN
Apache Zookeeper	RabbitMQ	Maven	Gitlab	Nexus	TravisCI	Charles Proxy
CloudFoundry (PaaS oriented to app deployment)	Spring Cloud Stream	Gradle	Bugzilla	Azure Artifact	Azure DevOps	Kitematic
JHipster	NServiceBus	Ant		Amazon S3	Azure Pipelines	DockStation
Heroku (PaaS)	Masstransport	**Python:**		Maven	GitLab	Docker Desktop Client
	Mosquitto RabbitMQ	pip		Artifactory	GoCD	
	Amazon Simple Notification Service (SNS)	**Php**:		DockerHub	Jenkins X	

	Amazon Simple Queue Service (Amazon SQS)	Composer			Spinnaker	
	ActiveMQ	**Docker:**			CircleCI	
	NATS	Docker composer				

Cloud Design (Infrastructure as Code)	Virtualization pieces	Log collectors / aggregators and management	Tracers / Requests Data visualization	Data Serialization / Messages definition	Databases	In Memory Engines / Read Caches
Terraform Amazon Cloud Formation	Kubernetes Docker Docker from Amazon, Google, Azure Mesos LXD OpenStack Proxmox	Log stash Elastic Search Kibana (plugin for elastic) Papertrail Graylog Splunk Sumo Logic Fluentd Logspout Docker Container AWS CloudTrail (records AWS API calls)	Zipkin (microservices calls, including internals) AppDynamics DataDog	Apache Avro Proto Buf Thrift gRPC	MySQL Mariadb Postgree MongoDB Cassandra Amazon DynamoDb Amazon RDS Oracle Clickhouse (columnar) InfluxDB (time series) MemSQL Hadoop Hive Azure TableSpace	MySQL Memory Engine Redis Memcached Amazon ElastiCache

Shared Filesystems	Load Balancers	Reverse Proxies	Web Servers with cache support	Server Health Monitor	API Gateways	Service Discovery
NFS Amazon S3 (eventual consistency) Quobyte Ceph Glusterd Hadoop Distributed File System (HDFS)	Nginx Ribbon (for Client side Load Balancer) (Consider Ip failover for supporting several LBs)	Squid Nginx Apache Traefik Varnish	Nginx Varnish	Zabbix Prometheus Collectd New relic agent Amazon CloudWatch Microsoft Application Insights Monitor.us Monitis Datadog Azure AKS monitor (for Kubernetes)	Kong Mulesoft Netflix's Zuul Azure Application Gateway KrakenD Amazon API Gateway Ocelot (for ASP.NET Core only)	Eureka Consul

Documents	Books	Key concepts	FrontEnd	Serverless	Design flows	Composers
The 12 Factor App http://12factor.net	AWS Certified Architect Official Study Guide Building Microservices by Sam Newman, O'Reilly Kubernetes Handbook DevOps on the Microsoft Stack by Wouter de Kort Building Microservices Applications on Microsoft Azure, Apress Site Reliability Engineering by Google Spring Services in Action by John Carnell, Manning Effective Java by Joshua Bloch (google)	Business Domain SRE DevOps API How big is the Team? Correlation ID Eventual consistency Event subscription Client side load balancing OAUTH2 PEP (Policy Enforcement Point) Immutable Images Canary deployment	AngularJS View.js Bootstrap jQuery	AWS Lambda	JDL-Studio JHipster Domain language draw.io Microsoft Visio	PHP Composer Docker Shipyard Docker Composer Docker compose UI

Provisioning	Run Tasks	Agents / Data Collectors	Correlation ID injectors	CDNs	Web Servers	Server Data Visualization
Idempotent: Chef Puppet Salt Juju **Agentless/Stateless:** Ansible (many modules are idempotent)	RunDeck	Telegraf	Spring Cloud Sleuth	Akamai Amazon CloudFront	Apache lighthttp NGinx Varnish **Java:** Apache Tomcat ServletExec Weblogic	Grafana

Unit Testing	Integration Testing / Functional Testing / A/B Testing / Behavior-Driven	Email delivery	Security	IDEs for Development	API Development Frameworks	Git Repository
Java: JUnit **Php:** PHPUnit **Python** py.test	Selenium Apache JMeter **BDD:** BeHat Cucumber	Amazon Simple Email Service (SES)	AWS Web Application Firewall (WAF)	**Java:** IntelliJ Netbeans **PHP:** PHPStorm **Python:** PyCharm	**Java:** Spring Boot **PHP:** Laravel Symphony Catalonia Framework	Github GitLab BitBucket

				.NET: Visual Studio Code	NET: NET Core	

Certificates:
https://letsencrypt.org/es/
cheapssl

Query lang:
https://graphql.org/learn/

Validation:
https://json-schema.org/
https://www.jsonschemavalidator.net/

Specification:
https://jsonapi.org/

Aggregation stats:
statsD

Tutorials:
https://www.digitalocean.com/community/tutorials

Spring Boot tutorial https://www.youtube.com/watch?v=vtPkZShrvXQ

Tip: The most layers of Software you add, more possibilities are of introducing single point of failure SPOF.
And you have to monitor more Servers, for example, the RabbitMQs, that they don't get without Free Space on disk.

Tip: you can use Compression to your Storage Logs with ZFS
Tip: Is important to routing internal API endpoints through internal API Gateway calls only from other Microservices. So is not possible to call from outside.