Micro Services –

Web Service – Digital Services offered with the help of Internet (http) - With the help of a URL accessing a method in any programming lang.

Web Services – XML/JSON Data Representation

XML/JSON – Platform, OS, Architecture Neutral data representation.

XML – Is case and space sensitive. It uses custom tags. DTD/XSD is used to define the structure of an XML. All tags are user defined.

DTD – Document Type Definition/Description

XSD – XML Schema Definition

JSON – JavaScript based data representation (Key-value pairs, both inside double quotes)

Parser – It’s a software to extract the data from XML/JSON

SOA – Service Oriented Architecture

Online Shopping App

1. Users
2. Products
3. Orders
4. Payments
5. Shipping
6. Offers
7. Ratings

The Challenges in Monolithic Application

1. Hard to maintain the code
2. Scalability
3. Database
4. No Scope to try new technologies
5. All services are tightly coupled – If any one service go down, entire application will go down

Micro-Service Pattern

1. UserService (Separate Springboot project)
2. ProductService (-do-)
3. OrderService (-do-)
4. PaymentService (-do-)
5. ShippingService(-do-)
6. OfferService(do-)
7. RatingService (-do-)

Communication across Service (Normal way using JDBCTemplate/Reactive Web methods)

1. Service Discovery (Eureka Server – Eureka Service – Discovery Server)
2. Load Balancing (Client Side load balancing – Ribbon)
3. NetFlix (OTT Platform) [Netflix OSS] – Open Source Softwares

<https://www.themoviedb.org/> - public API – Only Read access will be provided

API Token based authentication – To access the data.

Eureka Service

Movie Database (Public API)

Eureka Server/ Service

1. Spring Web
2. DevTools
3. Eureka Server (Discovery Server – To Register all the micro-services – EurekaClient )

DNS – Domain Naming Service

IP Address – All the resources connected to internet will have unique ip address (internet protocol address) 138.75.227.54 -- Google

<https://github.com/syskantechnosoft/MicroServiceJB> - Java Brains Youtube Channel