

# Web Services & Microservices Syllabus

## Web Services

### Introduction to Web Services

- What is Web Services?

### Types of Web Services

- REST
- SOAP

### Practical Examples

- Hello World Example
- Calculator

### HTTP Methods and URI

- Understanding HTTP Methods
- URI Structure

### Tools for API Testing

- What is ARC?
- API Call using ARC
- What is POSTMAN?

### CRUD Operations

- CRUD Operation Using POSTMAN

### Consuming Web Services

- Consume Web Services using Rest Template API

### Application Communication

- Communicate with Different Applications (UI, Consume, and Produce)

## Microservices

### Introduction to Microservices

- What is Microservices?

## **Spring Cloud**

- What is Spring Cloud?

## **Differences**

- Difference between Web Services and Microservices

## **Service Discovery**

- Eureka Server with Client Register

## **API Gateway**

- Configure with Zuul Server
- Dynamically Routing with Load Balancing to an Application

## **Consuming Microservices**

- Microservices Consuming using Rest Template

## **Communication between Services**

- Communication between UI Microservice and Backend Microservices using Zuul and Rest Template
- Communication between Different Client Microservices with Database Communication