

The slide features decorative curved lines in the corners. In the top right, there are two overlapping curved lines, one light orange and one light grey. In the bottom left, there are three overlapping curved lines, one light orange, one light grey, and one light blue.

CS489: Applied Software Development

Lesson 7:

RESTful Web API Development

Wholeness

- RESTful Web API is one of the most common architectural styles for implementing an enterprise application that exposes or serves backend data as web service endpoints.
- Science of Consciousness: Action leads to Achievement. *Achievement leads to Fulfillment.*

What is REST?

- REST stands for REpresentational State Transfer
- It is an architectural style for Distributed Hypermedia systems
- It originated from the dissertation paper by Roy Fielding
- It serves as the underlying mechanism on which the World-Wide Web (www) operates

REST principles

- Uniform Interface
 - REST resources are identified through Uniform Resource Identifiers (URI)
- Client-Server components - SoC
- Stateless
- Cacheable
- Layered

HTTP

- HTTP stands for HyperText Transfer Protocol
- It is the data transfer protocol which RESTful Web APIs use in managing the exchange of data between the Client and the Server
- It is a Stateless protocol
- The Data exchange is done through messages known as HTTP Request and HTTP Response

HTTP Methods

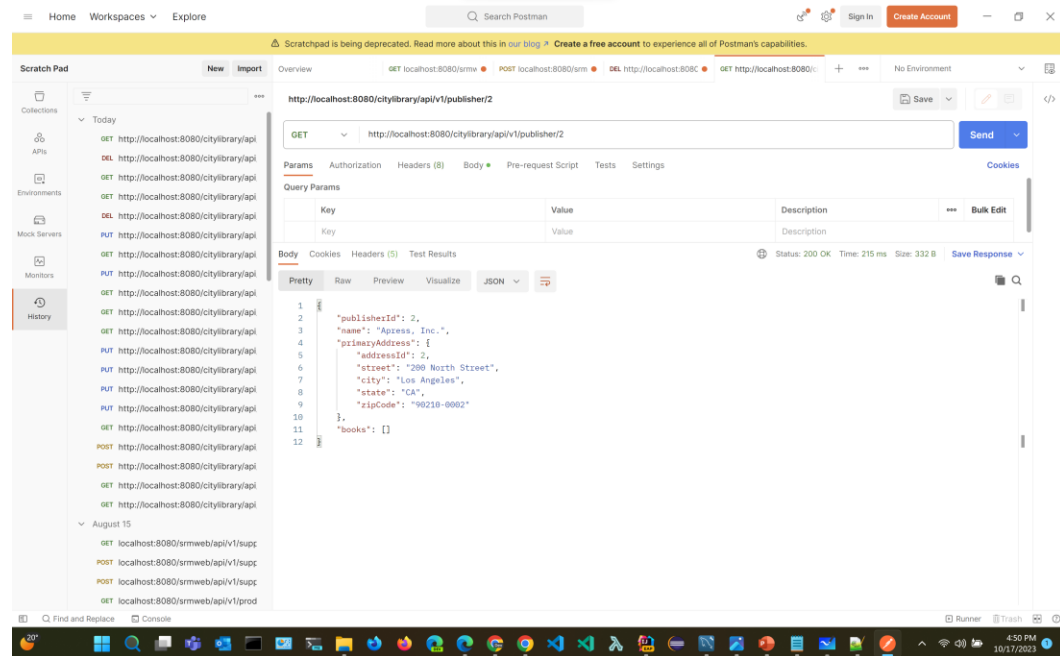
- Each HTTP Request message can be of one the following types:
 - HTTP GET
 - HTTP POST
 - HTTP PUT
 - HTTP DELETE
 - HTTP PATCH

Spring Web MVC

- Spring Web MVC is the core module in the Spring platform for implementing Web Applications, including REST Web APIs
- It provides a web application development framework that uses the Model-View-Controller architectural pattern
- Model – the data model
- View – the UI components
- Controller – the intermediary component that associates model to views. A.k.a the router

Demo

- Implementing RESTful Web API using Spring Web MVC framework





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