RESTAPI COURSE CONTENTS (3 days)

By Dr. Vishwanath rao

What is REST?

- REST Basics
- REST and HTTP are not same
- REST Guiding Principles
- REST Architectural Elements

HTTP Methods

- POST
- GET
- PUT
- PATCH
- DELETE

Resource Naming

- RESTful Resource Naming
- Resource URI Examples
- Resource Naming Anti-Patterns
- Pluralization
- REST Resource Naming Best Practices

Idempotence

- Idempotence Basics
- HTTP Safe Methods
- HTTP Idempotent Methods
- HTTP POST
- HTTP PUT
- HTTP DELETE
- HTTP GET
- HTTP HEAD
- HTTP OPTIONS
- HTTP TRACE

HTTP Status Codes

- HTTP Status Code Basics
- 1xx Informational response
- 2xx Success

- 3xx Redirection
- 4xx Client errors
- 5xx Server errors

RESTful API Design

- REST Request Anatomy
- Identify Object Model
- Create Model URIs
- Determine Representations
- Assign HTTP Methods
- Creating a RESTful Web Service

RESTful API Architecture

- Caching and REST API
- Compression and REST API
- REST API and Statelessness
- Content Negotiation
- REST API Versioning
- HATEOAS Driven REST APIs
- REST API Security
- REST API Challenges

Java RESTful API Development

- Using JAX-RS
- Using Spring

- Types of Web Services

- Understanding HTTP

- Tools and Technologies used to Develop REST

- Designing the REST API

- Java and REST

- Spring Boot and REST

- Resources

- Messages

- Addressing

- CRUD operations

- JSON response
- XML response
- Content Negotiation
- Developing client for Restful webservices
- Introduction to JPA
- REST with JPA
- Implementing GET,POST, PUT and DELETE requests with JPA
- Swagger UI
- Building a Generic Response
- Handling Exceptions