Fundamentals of REST API

## Duration:

6 x 4 hours (8:30 AM to 12:30 PM)

## Detailed Course Outline

* Overview of REST API
  + The REST Vision
  + Understanding HTTP
  + RFC 2616
  + HTTP verbs
  + Content negotiation
  + CRUD Operations and Business Operations
* Testing API calls using tools
  + Postman
  + Insomnia
  + REST Client VS Code extension
  + cURL command
* Making API calls
  + GET
  + POST
  + PUT
  + DELETE
  + PATCH
  + Authentication and Authorization
  + BASIC
  + JWT
* Basic Python scripting
  + Introduction to Python scripting
  + Python modules
  + Functions (creating and invoking)
  + Control flow
    - Conditionals
    - loops
  + Data types
    - Primitives
    - collections
  + Regular expressions
* Creating REST APIs using Flask
  + Installing Flask
  + Your first Flask application
  + HTTP Verbs
  + REST Principles
  + Creating our application endpoints
  + Returning a list of stores
  + Implementing other CRUD endpoints
  + Using Postman for API testing
* Python script for consuming REST API
  + Getting Started With requests
  + The GET Request
  + The Response
  + Status Codes
  + Content
  + Headers
  + Query String Parameters
  + Request Headers
  + Other HTTP Methods
  + The Message Body
  + Inspecting Your Request
  + Authentication