# **Lab: HTTP Protocol**

## **Exercise 1: Choose the Correct HTTP Method**

You are working on a Book Store API. For each opera on listed below, choose the appropriate HTTP method.

Operations:

**1. Add a new book - ?**

**2. Get a list of all available books - ?**

**3. Update the author of book with ID '15' - ?**

**4. Delete the book with ID '7' - ?**

Which of these operations are idempotent?

## **Exercise 2: Break Down the URL**

Given the following URL:

[http://localhost:8080/api/books?sort= tle&limit=10#top](http://localhost:8080/api/books?sort=%20tle&limit=10#top)

Extract and list:

- Protocol

- Host

- Port

- Path

- Query string

- Fragment

## **Exercise 3: Manual HTTP Requests for Book Resource**

You are developing a simple Book Store REST API. Your task is to write **manual HTTP requests** for the **'/api/books**' endpoint.

Use the following base configuration:

**- Host: 'localhost'**

**- Port: '8080'**

A typical book in JSON format:

**{**

**"title": "Programming Basics with Java",**

**"author": "SoftUni"**

**}**

### **Retrieve All Books**

Path: **'/api/books'**

### **Add a New Book**

Title: 'Clean Code'

Author: 'Robert C. Martin'

Hint: *Use a correct '****Content-Type****' heade*r.

Path: **'/api/books'**

### **Update an Existing Book**

Update book with ID '10', set title to 'Effective Java', author to 'Joshua Bloch'.

Path: **'/api/books/10'**

### **Delete a Book**

Delete book with ID '5'.

Path: **'/api/books/5'**

## **Exercise 4: Analyse the HTTP Response**

You receive this **response** and your task is to identify what is incorrect.

**HTTP/1.1 200 OK**

**Content-Type: text/html**

**Content-Length: 52**

**{**

**"error": "Book not found"**

**}**

## **Exercise 5: Spot the Error in the Request**

**Request**:

**PUT /api/books HTTP/1.1**

**Host: localhost:8080**

**Response**:

**HTTP/1.1 200 OK**

**Content-Type: application/json**

**[**

**{**

**"id": 1,**

**"title": "Clean Code"**

**},**

**{**

**"id": 2,**

**"title": "Effective Java"**

**}**

**]**

The **response is correct**, but there is a problem in the request. Use the response as a clue and find the mistake.