**Spring Boot application that provides a REST API to add two numbers**

**Steps:**

1. **Create a Spring Boot project.**
2. **Add a REST Controller to handle addition.**
3. **Run the application and test via browser.**

**Step 1: Install Prerequisites**

Before starting, ensure you have:

* **Java JDK 11+** installed
* **Eclipse IDE** (preferably Eclipse IDE for Java Developers)
* **Spring Tool Suite (STS) Plugin** (optional but recommended)
* **Maven** installed (if not bundled with Eclipse)

**Step 2: Create a New Spring Boot Project**

1. **Open Eclipse IDE.**
2. **Go to File → New → Spring Starter Project.**
3. **Enter Project Details:**
   * **Name:** AdditionApp
   * **Type:** Maven
   * **Packaging:** Jar
   * **Java Version:** 11 or later
   * **Group:** com.example
   * **Artifact:** addition
4. **Select Dependencies:**
   * **Spring Web** (for building REST APIs)
5. **Click Finish.**  
   This will generate a Spring Boot project with the required structure.

**Step 3: Create the REST Controller**

1. Inside the **src/main/java/com/example/addition** package, create a new Java class:
   * **Right-click on the package → New → Class**
   * Name it **AdditionController**
   * Click **Finish**
2. Copy and paste the following code inside **AdditionController.java**:

package com.example.addition;

import org.springframework.web.bind.annotation.\*;

@RestController

@RequestMapping("/api")

public class AdditionController {

@GetMapping("/add")

public int addNumbers(@RequestParam int num1, @RequestParam int num2) {

return num1 + num2;

}

}

**Step 4: Modify the Main Application Class**

Open the **AdditionApplication.java** file and ensure it has the following code:

package com.example.addition;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class AdditionApplication {

public static void main(String[] args) {

SpringApplication.run(AdditionApplication.class, args);

}

}

**Step 5: Run the Application**

1. **Right-click on the project → Run As → Spring Boot App.**

**Step 6: Test the API**

**Using Browser**

Open your browser and enter:

<http://localhost:8080/api/add?num1=10&num2=20>

Output:

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Find Maximum of Two Numbers /api/max?num1=10&num2=25

return Math.max(num1, num2);

Check if a Number is Even or Odd /api/evenodd?num=7

public String checkEvenOdd(@RequestParam int num) {

return (num % 2 == 0) ? "Even" : "Odd";}

Reverse a String /api/reverse?text=hello

public String reverseString(@RequestParam String text) { return new StringBuilder(text).reverse().toString(); }

Check if a Number is Prime /api/isPrime?num=7

public String checkPrime(@RequestParam int num) {

if (num < 2) return "Not Prime";

for (int i = 2; i <= Math.sqrt(num); i++) { if (num % i == 0) return "Not Prime";

}

return "Prime";

}