**Spring REST using Spring Boot 3**

**EXERCISE: Hello World RESTful Web Service**

**Objective**

To implement a simple RESTful web service using Spring Boot 3, which responds with a "Hello, World!" message when accessed via an HTTP GET request.

**Tools Used**

IDE - Eclipse

Spring Boot - 3.x (latest)

Build Tool - Maven

Java Version - Java 17 or higher

Packaging - JAR

Dependencies - Spring Web

**Implementation**

Step 1: Generate Spring Boot Project using Spring Initializr

1. Go to [<https://start.spring.io](https://start.spring.io)>

2. Fill in the following:

| Field | Value |

| ------------ | ----------------------- |

| Project | Maven |

| Language | Java |

| Spring Boot | 3.x (latest stable) |

| Group | `com.example` |

| Artifact | `hellorest` |

| Name | `hellorest` |

| Description | Hello World REST App |

| Package Name | `com.example.hellorest` |

| Packaging | JAR |

| Java | 17 or higher |

3. Click Add Dependencies → Select `Spring Web`

4. Click Generate to download the project as a `.zip` file

Step 2: Import the Project into Eclipse

1. Extract the downloaded `hellorest.zip`

2. Open Eclipse

3. Go to `File > Import`

4. Select `Maven > Existing Maven Projects`

5. Click Next

6. Browse and select the extracted folder

7. Click Finish

Step 3: Create a REST Controller

1. Go to:

`src/main/java/com/example/hellorest`

2. Create a new Java class → `HelloController.java`

3. Add the following code:

```java

package com.example.hellorest;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.RequestParam;

import org.springframework.web.bind.annotation.RestController;

@RestController

public class HelloController {

@GetMapping("/hello")

public String sayHello(@RequestParam(defaultValue = "World") String name) {

return "Hello, " + name + "!";

}

}

Step 4: Run the Application

1. Open `HelloRestApplication.java`

2. Right-click → Run As → Java Application

You should see logs like:

Tomcat started on port(s): 8080

Started HelloRestApplication

Step 5: Test the REST API

1. Open browser or Postman

2. Visit:

```

<http://localhost:8080/hello>

```

**Output**:

Hello, World!

