

# Hands on 1

Demonstrate integration of RESTful Web Service of type GET

Step 1: Created an application through Spring Initializr and imported it in the eclipse.

Step 2: Downloaded Postman software from web to validate using postman Api.

Step 3: Created a subpackage package com.restful.handsonspringrestful.model Under which Created a class Student.java. Generated getter and setter method .

Step 4: Create another subpackage package com.restful.handsonspringrestful.controller under which create a class named StudentController.java where the necessary http method is implemented.

Step 5: In StudentController class annotate with @RestController to create rest Endpoint. Under static block created the respective object of Student class with different set of data.

Step 6: invoked a method of return type ResponseEntity

## Student.java

```
package com.spring.restful.springrestfull.model;

public class Student {
    private String Id;
    private String name;

    public String getId() {
        return Id;
    }
    public void setId(String id) {
        Id = id;
    }
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
}
```

## StudentController.java

```
package com.spring.restful.springrestfull.controller;

import java.util.HashMap;

import java.util.Map;

import org.springframework.http.HttpStatus;

import org.springframework.http.ResponseEntity;

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

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

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

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

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

import com.spring.restful.springrestfull.model.Student;

@RestController

public class StudentController {

    private static Map<String ,Student>studentRecord=new HashMap<>();

    static {

        Student s1=new Student();

        s1.setld("8001");

        s1.setName("LKO");

        studentRecord.put(s1.getld(),s1);

        Student s2=new Student();

        s2.setld("8002");

        s2.setName("KOL");

        studentRecord.put(s2.getld(),s2);

        Student s3=new Student();

        s3.setld("8003");

        s3.setName("BLR");

        studentRecord.put(s3.getld(), s3);

    }

}
```

```
@RequestMapping(value="/student")  
  
public ResponseEntity<Object>getStudent(){  
  
    return new ResponseEntity<>(studentRecord.values(),HttpStatus.OK);  
  
}
```

### SpringRestfullApplication.java

```
package com.spring.restful.springrestfull;  
  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
  
@SpringBootApplication  
  
public class SpringRestfullApplication {  
  
    public static void main(String[] args) {  
  
        SpringApplication.run(SpringRestfullApplication.class, args);  
  
    }  
  
}
```

## OUTPUT: GET method

The screenshot displays the Postman application interface. On the left, the 'History' panel lists several requests, including GET requests to `http://localhost:8080/student` and `http://localhost:8080/countries/in`. The main workspace shows a GET request to `http://localhost:8080/student/8001`. The 'Send' button is visible, and the response is displayed in the 'Body' tab. The response is a JSON array of three objects, each representing a student with a name and an ID.

**Request:** GET `http://localhost:8080/student/8001`

**Response:** 200 OK, 174 ms, 246 B

```
1 {
2   {
3     "name": "KOL",
4     "id": "8882"
5   },
6   {
7     "name": "BLR",
8     "id": "8883"
9   },
10  {
11    "name": "LKO",
12    "id": "8881"
13  }
14 }
```