

How Spring Boot Simplifies REST Development:

Spring Boot:

- i) Eliminates complex configuration.
- ii) Provides embedded servers like Tomcat.
- iii) Automatically converts Java objects into JSON using Jackson.
- iv) Uses annotations for quick REST API development.

REST Controller Annotations:

- i) `@RestController`: Combines `@Controller` and `@ResponseBody`.
- ii) `@GetMapping`: Handles HTTP GET requests.
- iii) `@PostMapping`: Handles HTTP POST requests.
- iv) `@RequestBody`: Maps JSON data to Java objects.

Example : REST controllers with JSON Handling :

```

import org.springframework.web.bind.annotation.*;
@Controller
@RequestMapping("/api")
public class StudentController {
    @GetMapping("/student")
    public Student getStudent() {
        return new Student(1, "Alice");
    }
    @PostMapping("/student")
    public String addStudent(@RequestBody Student student) {
        return "Student added " + student.getName();
    }
}

class Student {
    private int id;
    private String name;
    public Student(int id, String name) {
        this.id = id;
        this.name = name;
    }
    public int getId() { return id; }
    public String getName() { return name; }
}

```