

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 controller with JSON Handling:

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

```
@RestController
```

```
@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; }
```

```
}
```