RestController

@RestController

- 스프링 4.0이상 지원

```java
@RestController
public class RestController {

    @RequestMapping("/home")
    public String home() {
        return "home";
    }
}
```

@RestController

- 스프링 3 에서는 @ResponseBody 사용

```
@Controller
public class HomeController {

    @ResponseBody
    public String hello() {
        return "hello";
    }
}
```

home

localhost:8080/home

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home

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Filter ☐ Hide data URLs **All** XHR JS CSS Img Media Font Doc WS Manifest Other

| 5 ms | 10 ms | 15 ms | 20 ms | 25 ms | 30 ms | 35 ms | 40 ms | 45 ms | 50 ms | 5 |

Name × Headers Preview Response Cookies Timing

🖹 home

▼ **General**
　　Request URL: http://localhost:8080/home
　　Request Method: GET
　　Status Code: 🟢 200
　　Remote Address: [::1]:8080
　　Referrer Policy: no-referrer-when-downgrade

클릭하면 이전 페이지

▼ **Response Headers**　　view source
　　Content-Length: 4
　　Content-Type: text/html
　　Date: Sun, 03 Dec 2017 02:51:24 GMT

1 requests | 102 B transferred | Fi...

▼ **Request Headers**　　view source

Jackson Library

Pom.xml

```xml
<!-- Jackson -->
<dependency>
    <groupId>com.fasterxml.jackson.core</groupId>
    <artifactId>jackson-databind</artifactId>
    <version>2.5.4</version>
</dependency>
```

Sevlet-context.xml

```xml
<!-- Enables the Spring MVC @Controller programming model -->
<annotation-driven />
```

VO 객체 생성

```java
@JsonIgnoreProperties({ "num", "name" })
public class MessageVO {

    int number;
    String message;
    String status;
    String code;
    int num;
    String name;

    @JsonIgnore
    Date datetime;
```

Getter/setter 필수

VO 객체 생성

```java
    }
    @JsonProperty("statusCode")
    public String getCode() {
        return code;
    }
    public void setCode(String code) {
        this.code = code;
    }
    public Date getDatetime() {
        return datetime;
    }
    @JsonIgnore
    public void setDatetime(Date datetime) {
        this.datetime = datetime;
    }
}
```

/sendVO

```java
@Inject
public MessageVO vo;

@RequestMapping("/sendVO")
public MessageVO sendVO() {
    vo.setCode("00");
    vo.setMessage("json 객체로 전송");
    return vo;
}
```

```json
{
    "number": 0,
    "message": "json 객체로 전송",
    "status": null,
    "statusCode": "00"
}
```

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| 20 ms | 40 ms | 60 ms | 80 ms | 100 ms | 120 ms | 140 ms | 16 |

Name

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sendVO

▼ data:image/png;base...

▼ **General**
    Request URL: http://localhost:8080/sendVO
    Request Method: GET
    Status Code: ● 200
    Remote Address: [::1]:8080
    Referrer Policy: no-referrer-when-downgrade

▼ **Response Headers**　　　view source
    Content-Type: application/json;charset=UTF-8
    Date: Sun, 03 Dec 2017 03:01:29 GMT
    Transfer-Encoding: chunked

2 requests | 206 B transferred | Fi...

/listVO

```java
@RequestMapping("/listVO")
public List<MessageVO> listVO() {
    List<MessageVO> list = new ArrayList<MessageVO>();
    for (int i = 0; i < 10; i++) {
        vo.setNumber(i);
        vo.setCode("00");
        vo.setMessage("json 객체로 전송");
        list.add(vo);
    }

    return list;
}
```

```
[
    {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    }
```

/mapVO

```java
@RequestMapping("/mapVO")
public Map<Integer, MessageVO> mapVO() {
    Map<Integer, MessageVO> map = new HashMap<Integer, MessageVO>();
    for (int i = 0; i < 10; i++) {
        vo.setNumber(i);
        vo.setCode("00");
        vo.setMessage("json 객체로 전송");
        map.put(i, vo);
    }
    return map;
}
```

```json
{
    "0": {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    "1": {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    "2": {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    "3": {
        "number": 9,
        "message": "json 객체로 전송",
        "status": null,
        "statusCode": "00"
    },
    "4": {
        "number": 9,
        "message": "json 객체로 전송",
```

/view


```java
@RequestMapping("/view")
public ModelAndView view() {
    ModelAndView mv = new ModelAndView();
    mv.setViewName("home");
    return mv;
}
```

리턴타입 ModelAndView

Hello world!

The time on the server is .

@ResponseEntity

/sendError

```java
@RequestMapping("/sendError")
public ResponseEntity<Void> sendError() {
    return new ResponseEntity<Void>(HttpStatus.NOT_FOUND);
}
```

Status code 만 전송

localhost:8080/sendError

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Filter   □ Hide data URLs All | XHR JS CSS Img Media Font Doc WS Manifest Other

| 5 ms | 10 ms | 15 ms | 20 ms | 25 ms | 30 ms | 35 ms | 40 ms | 45 ms | 50 ms |

Name

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sendError

▼ General
    Request URL: http://localhost:8080/sendError
    Request Method: GET
    Status Code: ● 404
    Remote Address: [::1]:8080
    Referrer Policy: no-referrer-when-downgrade

▼ Response Headers   view source
    Content-Length: 0
    Date: Sun, 03 Dec 2017 03:17:50 GMT

▼ Request Headers   view source

/sendErrorNotFound

```java
@RequestMapping("/sendErrorNotFound")
public ResponseEntity<MessageVO> sendErrorNotFound() {
    vo.setMessage("404 NOT Found");
    return new ResponseEntity<MessageVO>(vo, HttpStatus.NOT_FOUND);
}
```

에러메시지도 전송

```json
{
    "number": 0,
    "message": "404 NOT Found",
    "status": null,
    "statusCode": null
}
```

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| Filter | ☐ Hide data URLs **All** | XHR JS CSS Img Media Font Doc WS Manifest Ot

50 ms   100 ms   150 ms   200 ms

Name   × | **Headers** Preview Response Cookies Timing

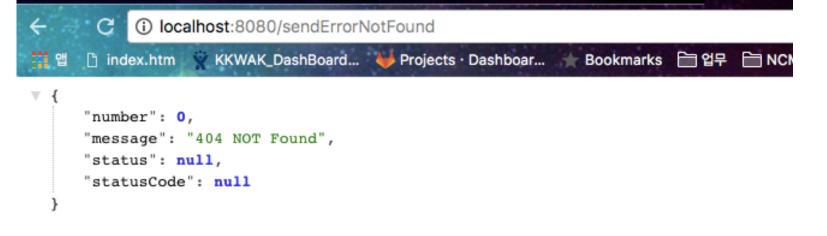📄 sendErrorNotFound   ▼ **General**

▼ data:image/png;base...   **Request URL:** http://localhost:8080/sendErrorNotFound
                                    Request Method: GET
                                    Status Code: ● 404
                                    Remote Address: [::1]:8080
                                    Referrer Policy: no-referrer-when-downgrade

                                  ▼ **Response Headers**   view source
                                    Content-Type: application/json;charset=UTF-8
                                    Date: Sun, 03 Dec 2017 03:19:55 GMT
                                    Transfer-Encoding: chunked

2 requests | 198 B transferred | Fi... ▼ **Request Headers**   view source

/sendErrorBad

```java
@RequestMapping("/sendErrorBad")
@ResponseStatus(value=HttpStatus.BAD_GATEWAY)
public MessageVO sendErrorBad() {
    vo.setMessage("Bad Gateway");
    return vo;
}
```

리턴타입 : json 객체

```
localhost:8080/sendErrorBad
```

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```
▼ {
    "number": 0,
    "message": "Bad Gateway",
    "status": null,
    "statusCode": null
  }
```

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Filter   ☐ Hide data URLs [All] XHR JS CSS Img Media Font Doc WS Manifest

| 20 ms | 40 ms | 60 ms | 80 ms | 100 ms | 120 ms | 140 ms | 160 ms | 180 ms |

Name   ✕ Headers Preview Response Cookies Timing

sendErrorBad

▼ data:image/png;base...

▼ **General**

  Request URL: http://localhost:8080/sendErrorBad
  Request Method: GET
  Status Code: ● 502
  Remote Address: [::1]:8080
  Referrer Policy: no-referrer-when-downgrade

▼ **Response Headers**   view source

  Content-Type: application/json;charset=UTF-8
  Date: Sun, 03 Dec 2017 03:21:55 GMT
  Transfer-Encoding: chunked

2 requests | 196 B transferred | Fi...   ▼ **Request Headers**   view source