문제해결 8

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원격 프로그램에 응답하기 – 예제 1)

파일구조
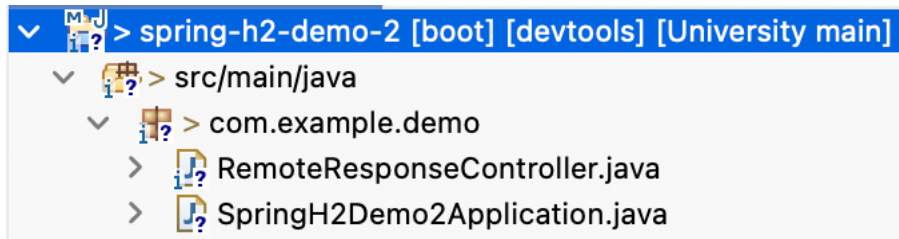
소스코드

```java
package com.example.demo;

import java.io.IOException;
import java.io.PrintWriter;

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

import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

@RestController
public class RemoteResponseController {

    @RequestMapping("/getDate2")
    public void main(HttpServletRequest request, HttpServletResponse response) throws IOException{
        String year = request.getParameter("year");
        String month = request.getParameter("month");
        String day = request.getParameter("day");

        PrintWriter out = response.getWriter();

        out.println("year : " + year);
        out.println("month : " + month);
        out.println("day : " + day);

    }
}
```
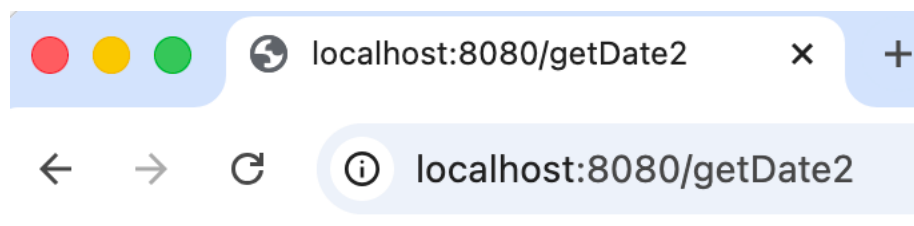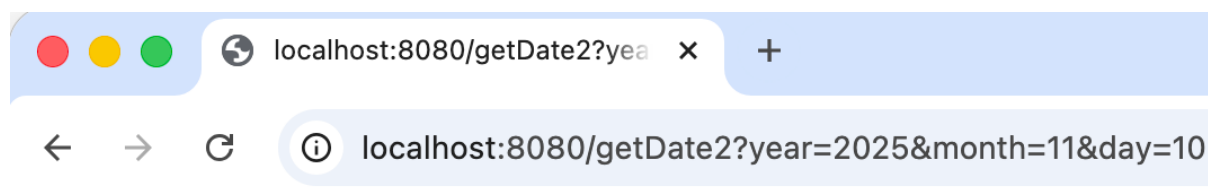
실행결과

localhost:8080/getDate2

localhost:8080/getDate2

```
year : null
month : null
day : null
```

localhost:8080/getDate2?yea

localhost:8080/getDate2?year=2025&month=11&day=10

```
year : 2025
month : 11
day : 10
```

First browser window (top):

localhost:8080/getDate2?yea...

localhost:8080/getDate2?year=2025&month=11&day=10

year : 2025
month : 11
day : 10

DevTools is now available in Korean

Don't show again   Always match Chrome's language   Switch DevTools to Kor...

Elements   Console   Sources   Network   »

Preserve log   Disable cache   No throttling

Filter   Invert   More filters ▼

All   Fetch/XHR   Doc   CSS   JS   Font   Img   Media   Manifest   Socket   Wasm   Other

20 ms   40 ms   60 ms   80 ms   100 ms

Name   Headers   Payload   Preview   Response   »

getDate2?year=2025&mont...   ▾ Query String Parameters   View source
contentscript.js
detector.js

year	2025
month	11
day	10

Second browser window (bottom):

localhost:8080/getDate2?yea...

localhost:8080/getDate2?year=2025&month=11&day=10

year : 2025
month : 11
day : 10

DevTools is now available in Korean

Don't show again   Always match Chrome's language   Switch DevTools to Kor...

Elements   Console   Sources   Network   »

Preserve log   Disable cache   No throttling

Filter   Invert   More filters ▼

All   Fetch/XHR   Doc   CSS   JS   Font   Img   Media   Manifest   Socket   Wasm   Other

20 ms   40 ms   60 ms   80 ms   100 ms
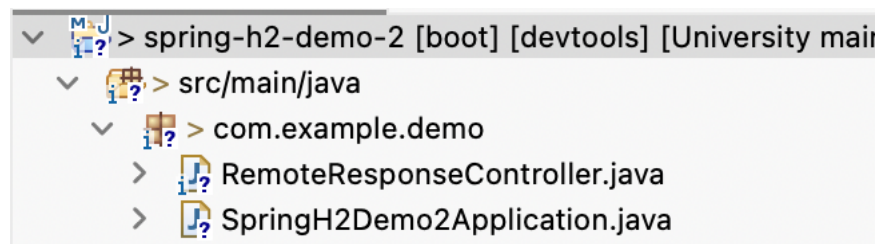
Name   Headers   Payload   Preview   Response   »

getDate2?year=2025&mont...
contentscript.js
detector.js

```
1   year : 2025
2   month : 11
3   day : 10
4
```

원격 프로그램에 응답하기 -예제 2)

파일구조

소스코드

```java
package com.example.demo;

import java.io.IOException;
import java.io.PrintWriter;
import java.util.Calendar;

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

import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

@RestController
public class RemoteResponseController {

    @RequestMapping("/getDate2")
    public void main(HttpServletRequest request, HttpServletResponse response) throws IOException{
        String year = request.getParameter("year");
        String month = request.getParameter("month");
        String day = request.getParameter("day");



        // null 처리 및 기본값 설정
        if (year == null || month == null || day == null) {
            response.setContentType("text/html; charset=UTF-8");
            PrintWriter out = response.getWriter();
            out.println("<html><body>");
            out.println("<h3>year, month, day 파라미터를 모두 입력해주세요.</h3>");
            out.println("</body></html>");
            return;
        }

        int yyyy = Integer.parseInt(year);
        int mm = Integer.parseInt(month);
        int dd = Integer.parseInt(day);


        // 2.작업 : 요일 계산
        Calendar cal = Calendar.getInstance();
        cal.clear();
        cal.set(yyyy, mm-1, dd);
        int dayOfWeek = cal.get(Calendar.DAY_OF_WEEK);
        char d = "일월화수목금".charAt(dayOfWeek-1);

        // 3. 출력(한글 인코딩 및 HTML 설정)
        response.setContentType("text/html; charset=UTF-8");
        PrintWriter out = response.getWriter();
        out.println("<html>");
        out.println("<head><meta charset='UTF-8'><title>날짜 결과</title></head>");
        out.println("<body>");
        out.println("<h2>입력하신 날짜 정보</h2>");
        out.println("<p>year : " + year + "</p>");
        out.println("<p>month : " + month + "</p>");
        out.println("<p>day : " + day + "</p>");
        out.println("<hr>");
        out.println("<h3>요일 : " + d + "요일</h3>");
        out.println("</body>");
        out.println("</html>");


    }
}
```
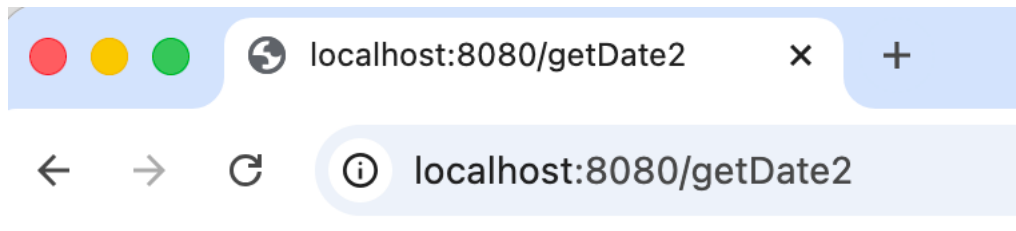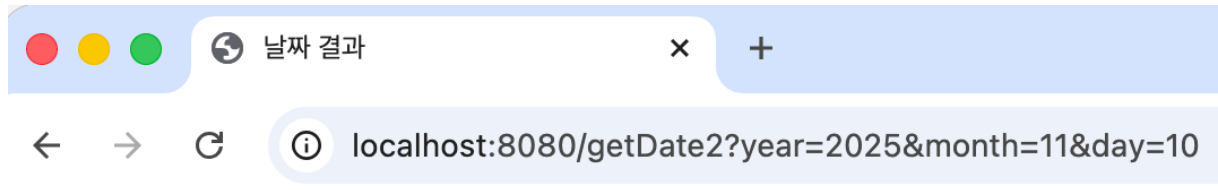
실행결과

year, month, day 파라미터를 모두 입력해주세요.

입력하신 날짜 정보

year : 2025

month : 11

day : 10

요일 : 월요일

원격 프로그램에 응답하기-예제 3)

파일구조

소스코드

```html
<!DOCTYPE html>
<html>
    <head>
        <meta charset="UTF-8">
        <title>날짜 요일 계산기</title>
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
    <body>

        <div style="max-width: 400px; margin: 50px auto; padding: 20px; border: 1px solid #ccc; border-radius: 5px; box-shadow: 2px 2px 5px rgba(0,0,0,0.1);">
            <h1>날짜별 요일 계산기</h1>

            <!-- POST 방식 폼 : /getDate3 -->
            <div>
                <h2>날짜 입력 (POST 요청: /getDate3)</h2>
                <form action ="/getDate3" method = "POST" style="margin-top: 15px;">
                    <div style="margin-bottom: 10px;">
                        <label for="year">년 :</label>
                        <input name="year" type="number" id="year" placeholder="YYYY" value="2025" required style="width: 100%; padding: 8px; border: 1px solid #ddd; border-radius: 3px; box-sizing: border-box;">
                    </div>
                    <div style="margin-bottom: 10px;">
                        <label for="month">월 :</label>
                        <input name="month" type="number" id="month" placeholder="MM" value="11" required style="width: 100%; padding: 8px; border: 1px solid #ddd; border-radius: 3px; box-sizing: border-box;">
                    </div>
                    <div style="margin-bottom: 10px;">
                        <label for="day">일 :</label>
                        <input name="day" type="number" id="day" placeholder="DD" value="10" required style="width: 100%; padding: 8px; border: 1px solid #ddd; border-radius: 3px; box-sizing: border-box;">
                    </div>

                    <button type="submit" style="width: 100%; padding: 10px; background-color: #5a5a5a; color: white; border: none; border-radius: 5px; cursor: pointer; margin-top: 15px;">
                        요일 계산 요청
                    </button>
                </form>
            </div>
            <hr style="margin: 20px 0; border: none; border-top: 1px dashed #ccc;">
            <p style="text-align: center; font-size: 14px; color: #666;">
                <a href="http://localhost:8080/getDate3?year=2025&month=11&day=10" style="color: #007bff; text-decoration: none;">GET 요청으로 테스트하기 (파라미터 포함)</a>
            </p>
        </div>
    </body>
</html>
```

```java
@RequestMapping ("/getDate3")
public void calculateDayOfWeekPost(
        @RequestParam(value = "year", required = false) String year,
        @RequestParam(value = "month", required = false) String month,
        @RequestParam(value = "day", required = false) String day,
        HttpServletResponse response) throws IOException {

    // null 처리 (파라미터가 누락된 경우)
    if (year == null || month == null || day == null) {
        response.setContentType("text/html; charset=UTF-8");
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h3>year, month, day 파라미터를 모두 입력해주세요.</h3>");
        out.println("</body></html>");
        return;
    }

    int yyyy;
    int mm;
    int dd;

    try {
        // 숫자 형식 변환 시 발생할 수 있는 오류(NumberFormatException)를 처리합니다.
        yyyy = Integer.parseInt(year);
        mm = Integer.parseInt(month);
        dd = Integer.parseInt(day);
    } catch (NumberFormatException e) {
        response.setContentType("text/html; charset=UTF-8");
        PrintWriter out = response.getWriter();
        out.println("<html><body>");
        out.println("<h3>year, month, day 파라미터는 유효한 숫자 형식이어야 합니다.</h3>");
        out.println("</body></html>");
        return;
    }

        // 2.작업 : 요일 계산
        Calendar cal = Calendar.getInstance();
        // Calendar의 월은 0(1월)부터 시작하므로, 입력값(1~12)에서 1을 뺍니다.
        cal.clear();
        cal.set(yyyy, mm-1, dd);
        int dayOfWeek = cal.get(Calendar.DAY_OF_WEEK);

        // 원본 코드에 빠져있던 '토'를 추가하여 수정했습니다.
        // Calendar.DAY_OF_WEEK는 일요일(1)부터 시작합니다.
        char d = "일월화수목금토".charAt(dayOfWeek-1);

        // 3. 출력(응답)
        response.setContentType("text/html; charset=UTF-8");
        PrintWriter out = response.getWriter();
        out.println("<html>");
        out.println("<head><meta charset='UTF-8'><title>날짜 결과</title></head>");
        out.println("<body>");
        out.println("<h2>입력하신 날짜 정보</h2>");
        out.println("<p>year : " + year + "</p>");
        out.println("<p>month : " + month + "</p>");
        out.println("<p>day : " + day + "</p>");
        out.println("<hr>");
        out.println("<h3>요일 : " + d + "요일</h3>");
        out.println("</body>");
        out.println("</html>");
    }
}
```
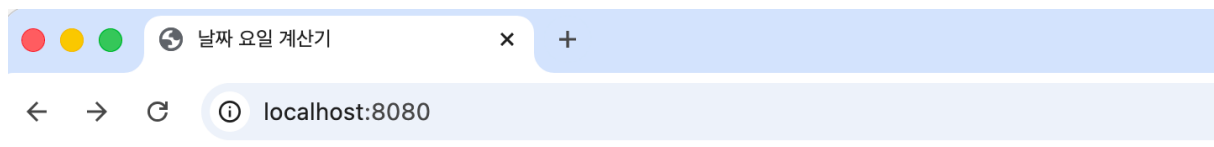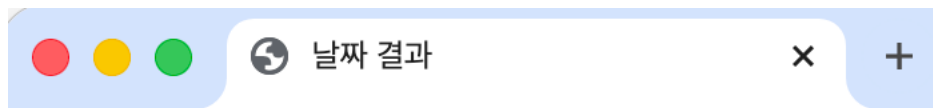
실행결과

날짜별 요일 계산기

날짜 입력 (POST 요청: /getDate3)

년 :

2025

월 :

11

일 :

10

요일 계산 요청

GET 요청으로 테스트하기 (파라미터 포함)

입력하신 날짜 정보

year : 2025

month : 11

day : 10

요일 : 월요일