# Thymeleaf

# Basic Syntax

- 기본 표현:
  - » Variable Expressions:  ${…}
  - » Selection Variable Expressions: *{…}
  - » Message Expressions:  #{…}
  - » Link URL Expressions:  @{…}
  - » Fragment Expressions: ~{…}

- 데이터 리터럴
  - » Text literals: 'one text', 'Another one!',…
  - » Number literals: 0, 34, 3.0, 12.3,…
  - » Boolean literals: true, false
  - » Null literal: null
  - » Literal tokens: one, sometext, main,…

- 문자열 연산
  - » String concatenation:  +
  - » Literal substitutions:  |The name is ${name}|

# Basic Syntax

- 수치 연산:
  - » Binary operators: +, -, *, /, %
  - » Minus sign (unary operator): -

- 불린 연산:
  - » Binary operators:  and ,  or
  - » Boolean negation (unary operator):  ! ,  not

- 비교 연산:
  - » Comparators:  > ,  < ,  >= ,  <=  ( gt ,  lt ,  ge ,  le )
  - » Equality operators:  == ,  != ( eq ,  ne )

- 조건문:
  - » If-then:  (if) ? (then)
  - » If-then-else:  (if) ? (then) : (else)
  - » Default:  (value) ?: (defaultvalue)

# 표현식

- 형식
  » Tag 안에 삽입해서 사용.

  ```
  th:[속성]="서버에서 전달 받은 값 또는 조건식"
  ```

- 3.x부터 inline 표현식 추가 → html 태그없이 표현이 가능.

  ```
  [[$user.name]]
  ```

# 표현식

- 자주 사용하는 표현식

| th:text | 텍스트 내용<br><span th:text="${user.name}"></span> |
|---|---|
| th:utext | html 내용<br><div th:utext="${content}"></div> |
| th:value | element value값, checkbox, input 등<br><input type="text" th:value="${title}" /> |
| th:with | 변수값 지정<br><p th:with="authType = ${user.authType}+' Type'"<br>th:text="${authType}"></p> |
| th:switch<br>th:case | switch-case문<br><div th:switch="${user.role}"><br>  <p th:case="'admin'">User is an administrator<br>  <p th:case="#{roles.manager}">User is a manager<br></div> |
| th:if | 조건문<br><p th:if="${user.authType}=='web'" th:text="${user.authType}"></p> |
| th:unless | else 표현<br><p th:unless="${user.authType}=='facebook'" th:text="'not '+<br>${user.authType}"></p> |
| th:each | 반복문<br><p th:each="user : ${users}" th:text="${user.name}"></p> |

# 표현식

- html5 속성에 대응하는 표현식

| | | |
|---|---|---|
| th:abbr | th:accept | th:accept-charset |
| th:accesskey | th:action | th:align |
| th:alt | th:archive | th:audio |
| th:autocomplete | th:axis | th:background |
| th:bgcolor | th:border | th:cellpadding |
| th:cellspacing | th:challenge | th:charset |
| th:cite | th:class | th:classid |
| th:codebase | th:codetype | th:cols |
| th:colspan | th:compact | th:content |
| th:contenteditable | th:contextmenu | th:data |
| th:datetime | th:dir | th:draggable |
| th:dropzone | th:enctype | th:for |
| th:form | th:formaction | th:formenctype |
| th:formmethod | th:formtarget | th:fragment |
| th:frame | th:frameborder | th:headers |
| th:height | th:high | th:href |
| th:hreflang | th:hspace | th:http-equiv |

# 표현식

- html5 속성에 대응하는 표현식 (계속)

| th:icon | th:id | th:inline |
|---|---|---|
| th:keytype | th:kind | th:label |
| th:lang | th:list | th:longdesc |
| th:low | th:manifest | th:marginheight |
| th:marginwidth | th:max | th:maxlength |
| th:media | th:method | th:min |
| th:name | th:onabort | th:onafterprint |
| th:onbeforeprint | th:onbeforeunload | th:onblur |
| th:oncanplay | th:oncanplaythrough | th:onchange |
| th:onclick | th:oncontextmenu | th:ondblclick |
| th:ondrag | th:ondragend | th:ondragenter |
| th:ondragleave | th:ondragover | th:ondragstart |
| th:ondrop | th:ondurationchange | th:onemptied |
| th:onended | th:onerror | th:onfocus |
| th:onformchange | th:onforminput | th:onhashchange |
| th:oninput | th:oninvalid | th:onkeydown |
| th:onkeypress | th:onkeyup | th:onload |

# 표현식

- html5 속성에 대응하는 표현식 (계속)

| | | |
|---|---|---|
| th:onloadeddata | th:onloadedmetadata | th:onloadstart |
| th:onmessage | th:onmousedown | th:onmousemove |
| th:onmouseout | th:onmouseover | th:onmouseup |
| th:onmousewheel | th:onoffline | th:ononline |
| th:onpause | th:onplay | th:onplaying |
| th:onpopstate | th:onprogress | th:onratechange |
| th:onreadystatechange | th:onredo | th:onreset |
| th:onresize | th:onscroll | th:onseeked |
| th:onseeking | th:onselect | th:onshow |
| th:onstalled | th:onstorage | th:onsubmit |
| th:onsuspend | th:ontimeupdate | th:onundo |
| th:onunload | th:onvolumechange | th:onwaiting |
| th:optimum | th:pattern | th:placeholder |
| th:poster | th:preload | th:radiogroup |
| th:rel | th:rev | th:rows |
| th:rowspan | th:rules | th:sandbox |
| th:scheme | th:scope | th:scrolling |

# 표현식

- html5 속성에 대응하는 표현식 (계속)

| | | |
|---|---|---|
| th:size | th:sizes | th:span |
| th:spellcheck | th:src | th:srclang |
| th:standby | th:start | th:step |
| th:style | th:summary | th:tabindex |
| th:target | th:title | th:type |
| th:usemap | th:value | th:valuetype |
| th:vspace | th:width | th:wrap |
| th:xmlbase | th:xmllang | th:xmlspace |

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| th:size | th:sizes | th:span |
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| th:xmlbase | th:xmllang | th:xmlspace |

```java
@Controller
public class UserTestController {
    @GetMapping("/users")
    public String getUserList(Model model) {
        List<User> users = new ArrayList<>();
        for(int i=0;i<3;i++) {
            users.add(new User("kkaok"+i, "테스트"+i, "web") );
        }
        User user = new User("테스트ID", "테스터", "web") ;
        model.addAttribute("user", user);
        model.addAttribute("users", users);
        model.addAttribute("today", new Date());
        model.addAttribute("content", "<div><span style='font-size:20px'>Hello World</span></div>"
        return "users";
    }
}
```

```html
1   <!DOCTYPE html>
2   <html>
3   <head>
4   <meta charset="UTF-8">
5   <title>Thymeleaf 예제</title>
6       <!-- Link 예제 -->
7       <script th:src="@{/assets/vendor/jquery/jquery.js}"></script>
8   </head>
9   <body>
10  <h1>Collection 객체 each 예제</h1>
11  <p th:each="user : ${users}" th:text="${user.name}"></p>
12
13  <h1>Utility Objects 예제</h1>
14  <p>#calendars <br>Today is: <span th:text="${#calendars.format(today,'yyyy-MM-dd')}">2019-02-15</s
15  <p>#arrays <br>user count is <span th:text="${#arrays.length(users)}"></span>.</p>
16
17  <h1>객체 예제</h1>
18  <p th:text="${user.name}">default</p>
19  <p>[[${user.name}]]</p>
20
21  <h1>th:text 예제</h1>
22  <p th:text="${content}">default value</p>
23
24  <h1>th:utext(Html) 예제</h1>
25  <p th:utext="${content}">default value</p>
26
```

```html
<h1>th:with 예제 : 변수 선언</h1>
<p th:with="authType = ${user.authType}+' Type'" th:text="${authType}"></p>

<h1>th:if 예제</h1>
<p th:if="${user.authType}=='web'" th:text="${user.authType}"></p>

<h1>th:unless 예제</h1>
<p th:unless="${user.authType}=='facebook'" th:text="'not '+ ${user.authType}"></p>

<h1>script 예제</h1>
<p><span id="scriptTest"></span></p>
<script>
// script에서 값을 받을 때
var userId = '[[${user.userId}]]';
console.log(userId);
$("#scriptTest").html(userId);
</script>
</body>
</html>
```