

HTML 5 Text-level Semantics

HTML



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<https://github.com/swacademy/HTML5>

<a>

- Defines a hyperlink, which is used to link from one page to another.
- Differences Between HTML 4.01 and HTML5
 - In HTML 4.01, the **<a>** tag could be either a hyperlink or an anchor.
 - In HTML5, the **<a>** tag is always a hyperlink, but if it has no **href** attribute, it is only a placeholder for a hyperlink.

<a> (Cont.)

■ Attributes

- **download**

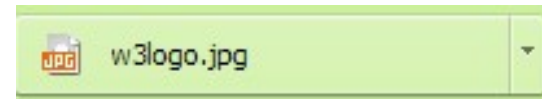


- Specifies the hyperlink target to be downloaded.
- filename

- **href**

- Specifies the URL of the page the link goes to.
- URL

```
1 <p>Click on the w3schools logo to download the image:<p>  
2  
3 <a href="/images/myw3schoolsimage.jpg" download="w3logo">  
4   
5 </a>
```



<a> (Cont.)

■ Attributes

● hreflang

- Specifies the language of the linked document.

```
1 <p>  
2   <a hreflang="en" href="http://www.w3schools.com">W3Schools.com</a>  
3 </p>
```

● media



- Specifies what media/device the linked document is optimized for.

```
1 <a href="att_a_media.asp?output=print"  
2   media="print and (resolution:300dpi)">  
3   Open media attribute page for print.</a>
```

<a> (Cont.)

■ Attributes

- **target**

- Specifies where to open the linked document.
- **_blank** | **_parent** | **_self** | **_top** | framename

- **type**



- Specifies the MIME type of the linked document

```
1 <a href="http://www.w3schools.com" type="text/html">W3Schools</a>
```

Lab1 : Anchor Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

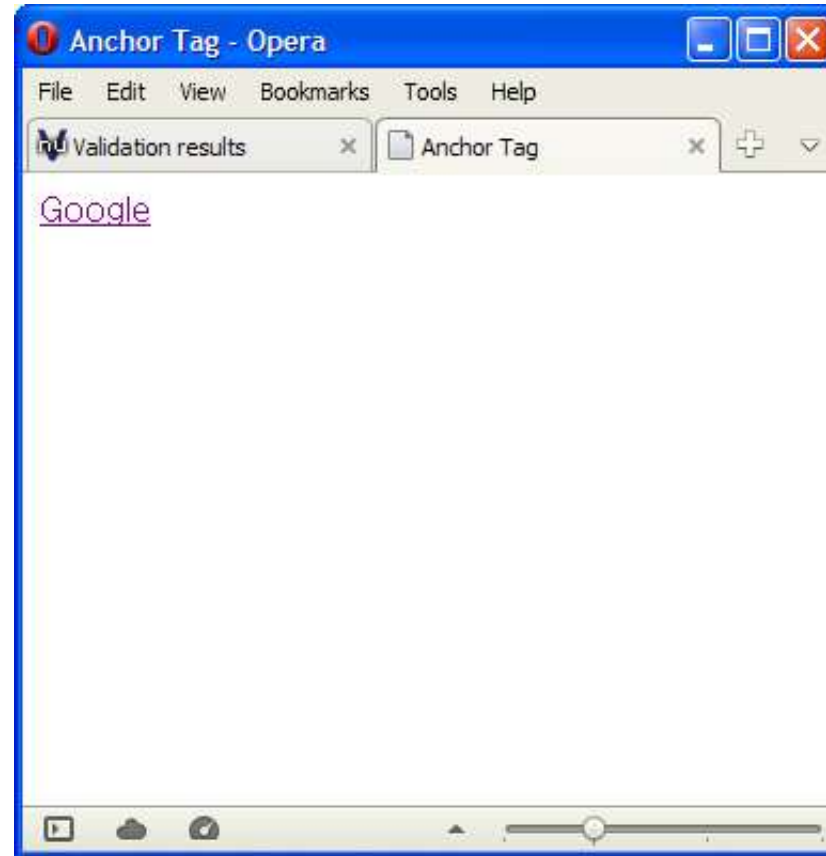
■ Files

- a.html

Lab1 : a.html

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title> Anchor Tag </title>
5     <meta charset="utf-8">
6   </head>
7   <body>
8     <a href="#">Google</a>
9   </body>
10 </html>
```

Lab1 : Result



Lab2 : Anchor Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

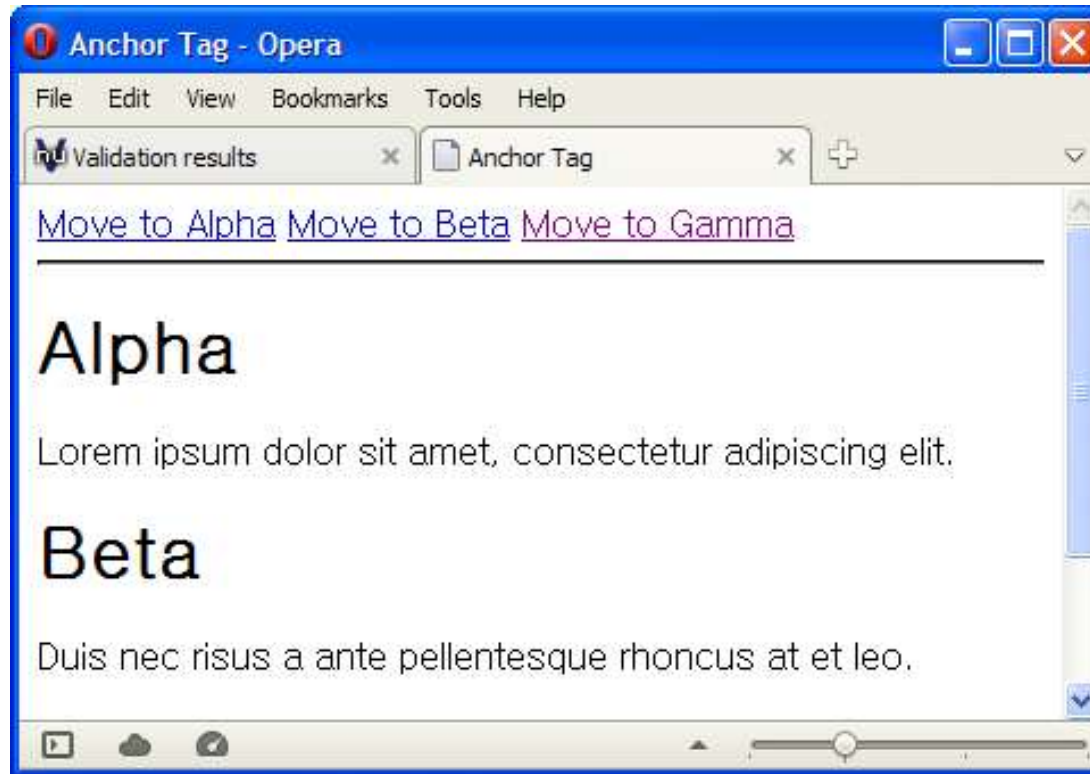
■ Files

- a1.html

Lab2 : a1.html

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4    <title>Anchor Tag</title>
5  </head>
6  <body>
7    <a href="#alpha">Move to Alpha</a>
8    <a href="#beta">Move to Beta</a>
9    <a href="#gamma">Move to Gamma</a>
10   <hr />
11   <h1 id="alpha">Alpha</h1>
12   <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
13   <h1 id="beta">Beta</h1>
14   <p>Duis nec risus a ante pellentesque rhoncus at et leo.</p>
15   <h1 id="gamma">Gamma</h1>
16   <p>Nullam porta, felis sit amet porttitor vestibulum.</p>
17 </body>
18 </html>
```

Lab2 : Result



- Is a phrase tag.
- It renders as emphasized text.

```
1 <em>Emphasized text</em><br>  
2 <strong>Strong text</strong><br>  
3 <dfn>Definition term</dfn><br>  
4 <code>A piece of computer code</code><br>  
5 <samp>Sample output from a computer program</samp><br>  
6 <kbd>Keyboard input</kbd><br>  
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

- Is a phrase tag.
- It defines important text.

```
1 <em>Emphasized text</em><br>
2 <strong>Strong text</strong><br>
3 <dfn>Definition term</dfn><br>
4 <code>A piece of computer code</code><br>
5 <samp>Sample output from a computer program</samp><br>
6 <kbd>Keyboard input</kbd><br>
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

<small>

- Defines smaller text (and other side comments).

```
1 <p>W3Schools.com - the world's largest web development site.</p>  
2 <p><small>Copyright 1999-2050 by Refsnes Data.</small></p>
```

W3Schools.com - the world's largest web development site.

Copyright 1999-2050 by Refsnes Data.

<s>

- Specifies text that is no longer correct, accurate or relevant.

```
1 <p><s>My car is blue.</s></p>  
2 <p>My new car is silver.</p>
```

~~My car is blue.~~

My new car is silver.

<cite>

- Defines the title of a work (e.g. a book, a song, a movie, a TV show, a painting, a sculpture, etc.).

```
1   
2 <p><cite>The Scream</cite> by Edward Munch. Painted in 1893.</p>
```



The Scream by Edward Munch. Painted in 1893.

<q>

- Defines a short quotation.
- Browsers normally insert quotation marks around the quotation.
- Attributes
 - **cite**
 - Specifies the source URL of the quote.

```
1 <p>WWF's goal is to:  
2 <q cite="http://www.wwf.org">  
3   Build a future where people live in harmony with nature.</q>  
4   We hope they succeed.  
5 </p>  
6  
7 <p><b>Note:</b> The cite attribute has no visual effect in ordinary web  
   browsers, but can be used by screen readers.</p>
```

WWF's goal is to: " Build a future where people live in harmony with nature." We hope they succeed.

Note: The cite attribute has no visual effect in ordinary web browsers, but can be used by screen readers.

<dfn>

- Is a phrase tag.
- It defines a definition term.

```
1 <em>Emphasized text</em><br>
2 <strong>Strong text</strong><br>
3 <dfn>Definition term</dfn><br>
4 <code>A piece of computer code</code><br>
5 <samp>Sample output from a computer program</samp><br>
6 <kbd>Keyboard input</kbd><br>
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

<abbr>

- Indicates an abbreviation or an acronym, like "WWW" or "NATO".

```
1 <p>The <abbr title="World Health Organization">WHO</abbr> was founded in  
1948.</p>
```

The WHO was founded in 1948.

World Health Organization

<time>



- Defines either a time (24 hour clock), or a date in the Gregorian calendar, optionally with a time and a time-zone offset.
- Attributes

- **datetime**



- Gives the date/time being specified.
- Otherwise, the date/time is given by the element's contents.

```
1 <p>I have a date on <time datetime="2008-02-14">Valentines day</time>.</p>
2
3 <p><b>Note:</b> The time element does not render as anything special in any
  of the major browsers.</p>
```

<code>

- Is a phrase tag.
- It defines a piece of computer code.

```
1 <em>Emphasized text</em><br>
2 <strong>Strong text</strong><br>
3 <dfn>Definition term</dfn><br>
4 <code>A piece of computer code</code><br>
5 <samp>Sample output from a computer program</samp><br>
6 <kbd>Keyboard input</kbd><br>
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

Lab3 : Code Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

■ Files

- code.html

Lab3 : code.html

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Code Tag </title>
5     <meta charset="utf-8">
6   </head>
7   <body>
8     <h1>Code Tag</h1>
9     <code>
10       public class HelloWorld {
11         public static void main(String [] args){
12           System.out.println("Hello, world");
13         }
14       }
15     </code>
16   </body>
17 </html>
```

Lab3 : Result



Lab4 : Code Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

■ Files

- code1.html

Lab4 : code1.html

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Code Tag</title>
5     <meta charset="utf-8">
6   </head>
7   <body>
8     <h1>Code Tag</h1>
9     <code>
10      <pre>
11        public class HelloWorld {
12          public static void main(String [] args){
13            System.out.println("Hello, world");
14          }
15        }
16      </pre>
17    </code>
18  </body>
19 </html>
```

Lab4 : Result



The screenshot shows a web browser window with the title "Code Tag - Opera". The address bar displays "Code Tag". The main content area shows the text "Code Tag" in a large font, followed by a Java code snippet for a "HelloWorld" class. The code is as follows:

```
public class HelloWorld {  
    public static void main(String [] args){  
        System.out.println("Hello, world");  
    }  
}
```

The browser's status bar at the bottom includes icons for a document, a cloud, and a magnifying glass, along with a scrollbar.

<var>

- Is a phrase tag.
- It defines a variable.

```
1 <em>Emphasized text</em><br>
2 <strong>Strong text</strong><br>
3 <dfn>Definition term</dfn><br>
4 <code>A piece of computer code</code><br>
5 <samp>Sample output from a computer program</samp><br>
6 <kbd>Keyboard input</kbd><br>
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

<samp>

- Is a phrase tag.
- It defines sample output from a computer program.

```
1 <em>Emphasized text</em><br>  
2 <strong>Strong text</strong><br>  
3 <dfn>Definition term</dfn><br>  
4 <code>A piece of computer code</code><br>  
5 <samp>Sample output from a computer program</samp><br>  
6 <kbd>Keyboard input</kbd><br>  
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

<kbd>

- Is a phrase tag.
- It defines keyboard input.

```
1 <em>Emphasized text</em><br>
2 <strong>Strong text</strong><br>
3 <dfn>Definition term</dfn><br>
4 <code>A piece of computer code</code><br>
5 <samp>Sample output from a computer program</samp><br>
6 <kbd>Keyboard input</kbd><br>
7 <var>Variable</var>
```

Emphasized text

Strong text

Definition term

A piece of computer code

Sample output from a computer program

Keyboard input

Variable

<sub>

- Defines subscript text.
- Subscript text appears half a character below the baseline.
- Subscript text can be used for chemical formulas, like H₂O.

1 `<p>This text contains _{subscript} text.</p>`

This text contains subscript text.

<sup>

- Defines superscript text.
- Superscript text appears half a character above the baseline.
- Superscript text can be used for footnotes, like WWW^[1].

1 `<p>This text contains ^{superscript} text.</p>`

This text contains ^{superscript} text.



- Defines a part of text in an alternate voice or mood.
- The content of the `<i>` tag is usually displayed in *italic*.
- Can be used to indicate a technical term, a phrase from another language, a thought, or a ship name, etc.

```
1 <p>He named his car <i>The lightning</i>, because it was very fast.</p>
```

He named his car *The lightning*, because it was very fast.

- Specifies bold text.

```
1 <p>This is normal text - <b>and this is bold text</b>.</p>
```

This is normal text - **and this is bold text.**

Lab5 : Text-based Tags

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

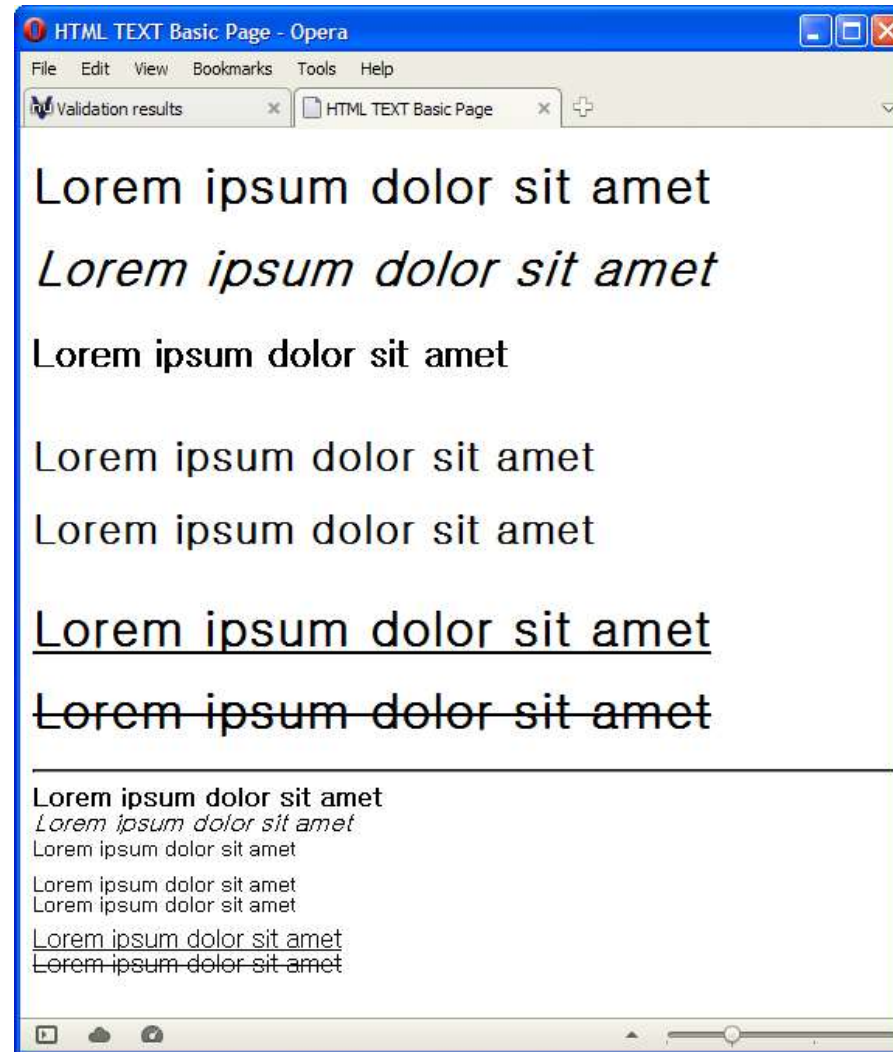
■ Files

- textbased.html

Lab5 : textbased.html

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>HTML TEXT Basic Page</title>
5  </head>
6  <body>
7      <h1><b>Lorem ipsum dolor sit amet</b></h1>
8      <h1><i>Lorem ipsum dolor sit amet</i></h1>
9      <h1><small>Lorem ipsum dolor sit amet</small></h1>
10     <h1><sub>Lorem ipsum dolor sit amet</sub></h1>
11     <h1><sup>Lorem ipsum dolor sit amet</sup></h1>
12     <h1><ins>Lorem ipsum dolor sit amet</ins></h1>
13     <h1><del>Lorem ipsum dolor sit amet</del></h1>
14     <hr />
15     <b>Lorem ipsum dolor sit amet</b><br />
16     <i>Lorem ipsum dolor sit amet</i><br />
17     <small>Lorem ipsum dolor sit amet</small><br />
18     <sub>Lorem ipsum dolor sit amet</sub><br />
19     <sup>Lorem ipsum dolor sit amet</sup><br />
20     <ins>Lorem ipsum dolor sit amet</ins><br />
21     <del>Lorem ipsum dolor sit amet</del><br />
22 </body>
23 </html>
```

Lab5 : Result



<u>

- Represents some text that should be stylistically different from normal text, such as misspelled words or proper nouns in Chinese.

1

<p>This is a <u>parragraph</u>.</p>

This is a parragraph.

<mark>



- Defines marked text.
- Use the **<mark>** tag if you want to highlight parts of your text.

```
1 <p>Do not forget to buy <mark>milk</mark> today.</p>
```

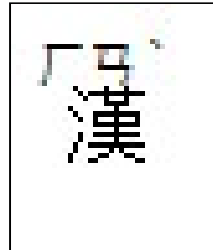
Do not forget to buy milk today.

<ruby>



- Specifies a ruby annotation.
- Ruby annotations are used for East Asian typography, to show the pronunciation of East Asian characters.

```
<ruby>  
漢 <rt> ㄏㄢˋ </rt>  
</ruby>
```



```
<ruby>君<rt>く ん </ruby><ruby>子<rt>し </ruby>は<ruby>和<rt>わ </ruby>して<ruby>同<rt>どう </ruby>ぜず。
```

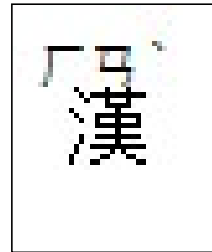
くんしはわしてどうぜず。

<rt>



- Defines an explanation or pronunciation of characters (for East Asian typography) in a ruby annotation.

```
<ruby>  
漢 <rt> ㄏㄢˋ </rt>  
</ruby>
```



<rp>



- Defines what to show if a browser does *NOT* support ruby annotations.

```
<ruby>  
漢 <rt><rp>(</rp>厂马`<rp>)</rp></rt>  
</ruby>
```

漢厂马`

Lab6 : Ruby Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

■ Files

- ruby.html

Lab6 : ruby.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>HTML TEXT Basic Page</title>
5 </head>
6 <body>
7   <ruby>
8     <span>大韓民國</span>
9     <rp>( </rp>
10    <rt>대한민국</rt>
11    <rp>)</rp>
12  </ruby>
13 </body>
14 </html>
```

Lab6 : Result



Lab7 : Ruby Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

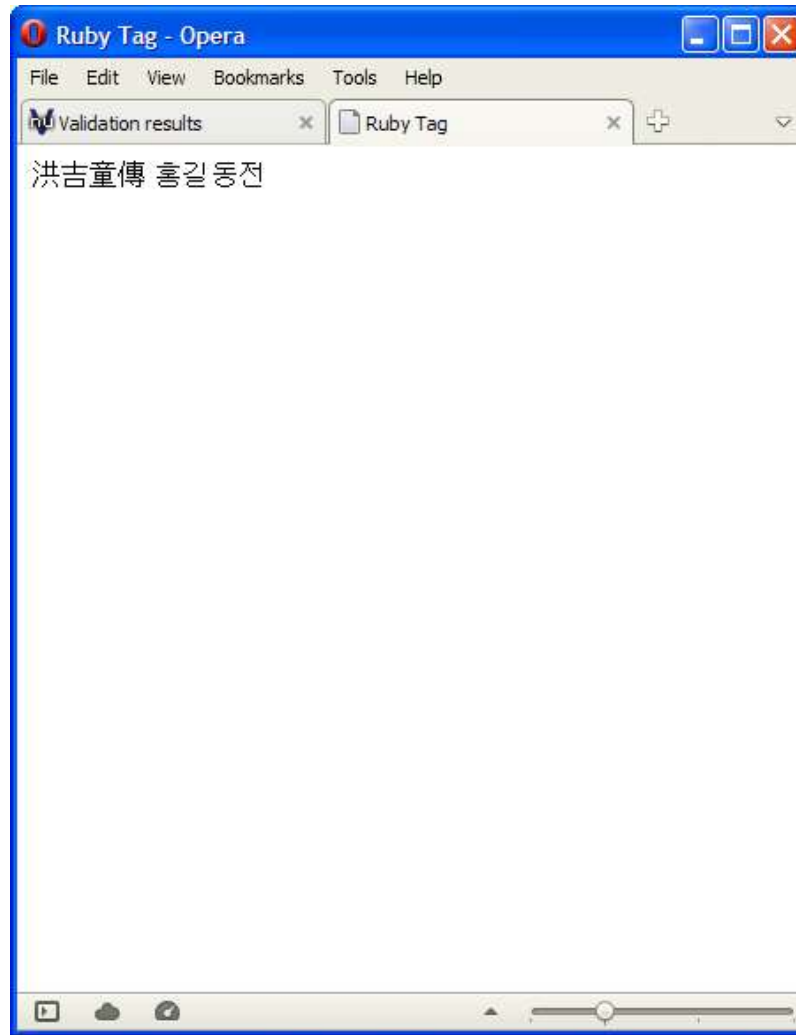
■ Files

- ruby1.html

Lab7 : ruby1.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Ruby Tag</title>
5 </head>
6 <body>
7   <ruby>
8     洪吉童傳
9     <rt>홍길동전</rt>
10  </ruby>
11 </body>
12 </html>
```

Lab7 : Result



<bdi>



- Stands for Bi-directional Isolation.
- Isolates a part of text that might be formatted in a different direction from other text outside it.
- This element is useful when embedding user-generated content with an unknown directionality.

<bdi> (Cont.)

```
1 <p>
2 In the example below, usernames are shown along with the number of points
3 in a contest.
4 If the bdi element is not supported in the browser, the username of the Arabic
5 user would confuse the text (the bidirectional algorithm would put the colon
6 and the number "90" next to the word "User" rather than next to the word
7 "points").
8 </p>
9 <ul>
10 <li>User <bdi>href</bdi>: 60 points</li>
11 <li>User <bdi>jdoe</bdi>: 80 points</li>
12 <li>User <bdi>علي</bdi>: 90 points</li>
13 </ul>
14 <p><b>Note:</b> The bdi element is currently supported only in Firefox and
15 Chrome.</p>
```

In the example below, usernames are shown along with the number of points supported in the browser, the username of the Arabic user would confuse the colon and the number "90" next to the word "User" rather than next to the word

- User hrefs: 60 points
- User jdoe: 80 points
- User علي: 90 points

Note: The bdi element is currently supported only in Firefox and Chrome.

<bdo>

- Stands for Bi-Directional Override.
- Is used to override the current text direction.
- Attributes
 - **dir**
 - Required. Specifies the text direction of the text inside the **<bdo>** element.
 - **ltr**, **rtl**

```
1 <p>This paragraph will go left-to-right.</p>  
2 <p><bdo dir="rtl">This paragraph will go right-to-left.</bdo></p>
```

This paragraph will go left-to-right.
.tfel-ot-thgir og lliw hpargarap sihT

- Is used to group inline-elements in a document.
- Provides no visual change by itself.

```
1 <p>My mother has <span style="color:blue;font-weight:bold">blue</span> eyes  
and my father has <span style="color:darkolivegreen;font-weight:bold">dark green  
</span> eyes.</p>
```

My mother has **blue** eyes and my father has **dark green** eyes.

- Inserts a single line break.
- Is an empty tag which means that it has no end tag.

```
1 <p>  
2 To break lines<br>in a text,<br>use the br element.  
3 </p>
```

To break lines
in a text,
use the br element.

Lab8 : line BReak Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

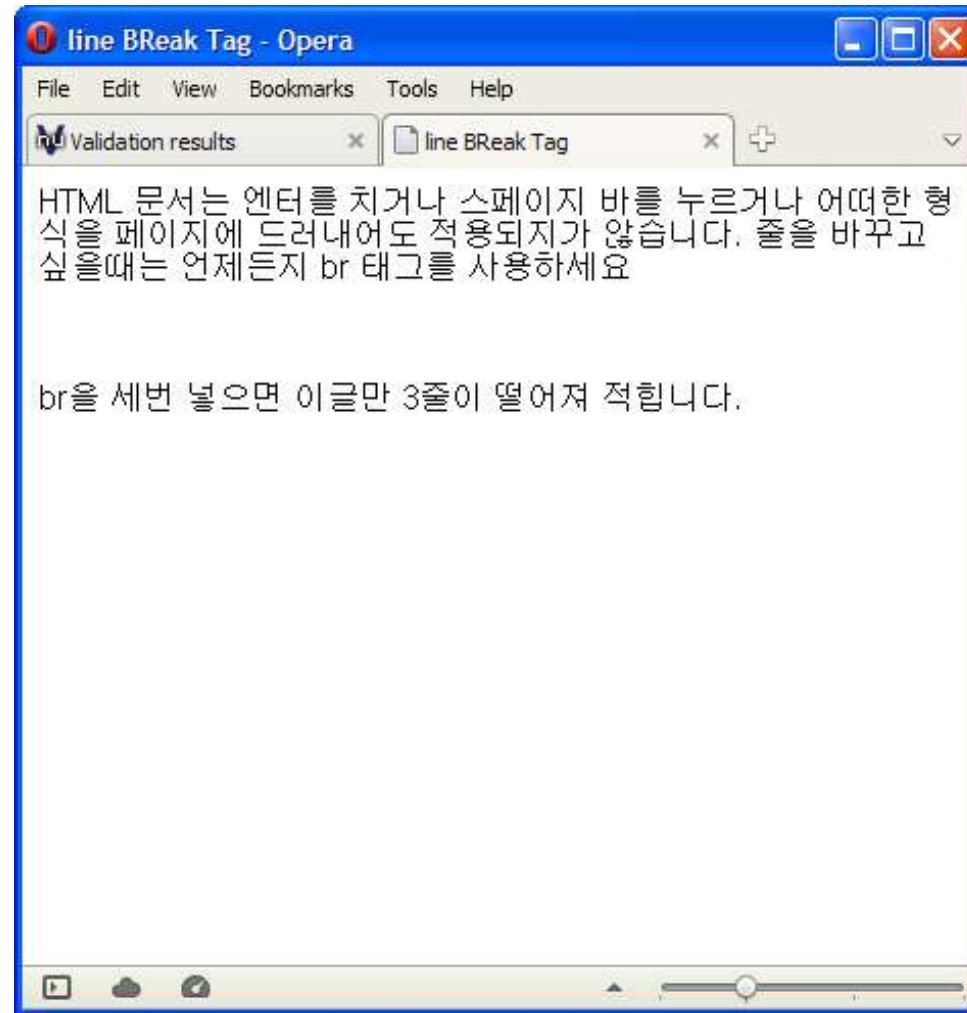
■ Files

- br.html

Lab8 : br.html

```
1 <!doctype html>
2 <html>
3 <head>
4 <title>line BReak Tag</title>
5 </head>
6 <body>
7   HTML 문서는 엔터를 치거나
8
9   스페이지 바를 누르거나 어떠한 형식을 페이지에 드러내어도
10  적용되지가 않습니다.
11  줄을 바꾸고 싶을때는 언제든지 br 태그를 사용하세요 <br>
12  <br><br><br>
13  br을 세번 넣으면 이글만 3줄이 떨어져 적힙니다.
14 </body>
15 </html>
```

Lab8 : Result



<wbr>



- Stands for Word Break Opportunity.
- Specifies where in a text it would be ok to add a line-break.

```
1 <p>Try to shrink the browser window, to view how the word  
2 "XMLHttpRequest" in  
3 the paragraph below will break:</p>  
4 <p>To learn AJAX, you must be familiar with the XML<wbr>Http<wbr>Request  
5 Object.</p>  
6 <p><b>Note:</b> The wbr element is not supported in IE.</p>
```

Try to shrink the browser window, to view how the word "XMLHttpRequest" in the paragraph below will break:

To learn AJAX, you must be familiar with the XMLHttpRequest Object.

Note: The wbr element is not supported in IE.

Lab9 : Word lineBReak Tag

■ Web Browsers

- Edge, Firefox, Google Chrome, Opera, Safari

■ Text Editors

- Visual Studio Code, Notepad++, Editplus, etc...

■ Files

- wbr.html

Lab9 : wbr.html

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Word lineBReak Tag </title>
5      <meta charset="utf-8">
6  </head>
7  <body>
8      <h1>Word lineBReak Tag</h1>
9      <p>Try to shrink the browser window, to view how
10 the word "XMLHttpRequest" in the paragraph
11 below will break:</p>
12
13      <p>To learn AJAX, you must be familiar
14 with the XML<wbr>Http<wbr>Request Object.</p>
15 </body>
16 </html>
```

Lab9 : Result

