Web System Development by
Ruby on Rails

Day 4(11/Oct/2012)
HTML

Today's Theme

- ☐ Read HTML（Hyper Text Markup Language）

- ☐ Probe the method of screen decoration and description,
  - ■ By learning TAGs of the language.

Read main screen page

- ☐ In memopad/app/views/layouts/ open application.html.erb

```
<!DOCTYPE html>
<html>
<head>
  <title>Memopad</title>
  <%= stylesheet_link_tag "application", :media => "all" %>
  <%= javascript_include_tag "application" %>
  <%= csrf_meta_tag %>
</head>
<body>

<%= yield %>

</body>
</html>
```

HTML tags

- <tag> description </tag>
  - Elements called 'tags' are listed
  - Start tag and end tag must correspond.
  - Some tags such as <br> do not need end tag.

- <tag1> <tag2> Dscr. </tag2> </tag1>

- When tags are nested, end tags should close from inside of the nest.

Whole document structure

```
<html>
   <!--   comment   -->
   <!--   whole document is held between html tags   -->
   <head>
      <!-- Header part is held between head tags   -->
   </head>
   <body>
      <!-- Contents are held between body tags -->
   </body>
</html>
```
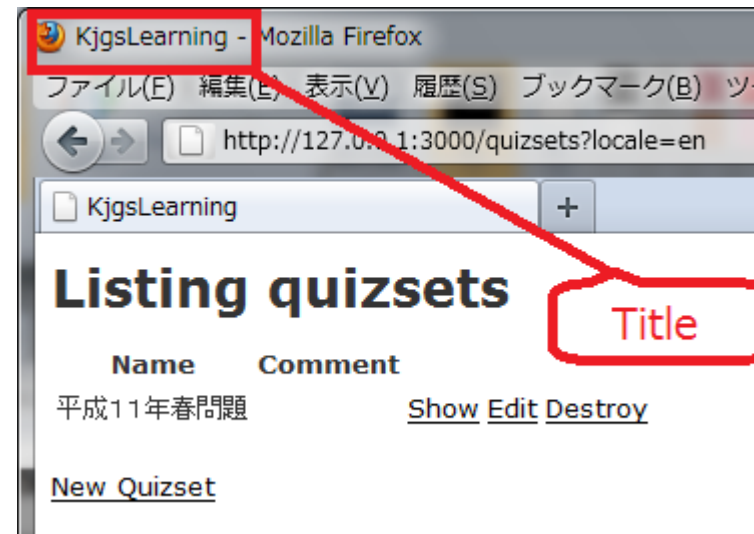
Header Part

□ Header is held between <head></head>

□ Header part consists of title tags and such.

□ <title></title>

■ String between title tags come to the Title part of browser

□ <meta ・・・(in next page)

□ <style id="・・・"></style>

■ Style look up document styles by name.

Meta Data

- Meta data specifies Character Encoding and content type such as html/css.
- HTML4
  - `<meta http-equiv="content-type" content="text/html;charset=UTF-8" />`
- HTML5
  - `<meta charset="UTF-8" />`

- Character Encoding and content type such as html/css are specified.

Multi-frame structure

- Each Area held between <frame> </frame> is become independent HTML document.

- <frame> </frame>blocks should be enclosed by <frameset></frameset> tag.

- <frameset border="0" cols="200,*">
- Cols="200,*" means that the frames are vertically separated at 200th pixel from left edge.

Sample to split into left and right

- `<html>`
- `<head>`
- `<title>My Blog</title>`
- `<META NAME="description" CONTENT="blog,diary">`
- `<META http-equiv="content-type" content="text/html">`
- `</head>`
- `<a name="_top"></a>`
- `<frameset border="0" cols=200,*>`
- `<frame src="menu.htm" marginwidth=10 scrolling=yes name="menu">`
- `<frame src="bodyTop.htm" marginheight=20 marginwidth=20`
- `scrolling="auto" name="main">`
- `</frameset>`
- `</html>`

Body Block

- Main Content of the page is held between <body></body>tags.
  - See http://www.tagindex.com/
- Sample of tags used in the body.
- table / th / tr / td   for tables
  - h1 / h2 / h3 ⋯   Heading contents
  - br / hr   line break, and horizontal line
  - b / i / u / del   character decoration
  - a   link
  - img   embedded image

Body in Application.html.erb

- Only <%= yeild =>
  - is described.
  - See P113, in 'yeild' part, other sub module top pages are enclosed.

  - layouts/application.html.erb is a common template, and each embedded contents are described in sub-directories such as quizsets.

  - The word 'yeild' is used also in other parts where 'actions are performed'.

Table description

- Table is used as a technique when the screen is split into square cells.

- Please read many sample pages to learn the usage of table.

```
<table>                Start of Table
  <tr>                 beginning of the line
    <td>               beginning of the cell
    </td>
  </tr>
</table>
```

views/memos/index.html.erb

```erb
<h1><%= t :quizsets_list %></h1>

<table>
  <tr>
    <th><%= t :Content %></th>
<th></th>
    <th></th>
    <th></th>
  </tr>

<% @memos.each do |memo| %>
  <tr>
    <td><%= memo.content %></td>
    <td><%= link_to (t 'Show'), memo %></td>
    <td><%= link_to (t 'Edit'), edit_memo_path(memo) %></td>
    <td><%= link_to (t 'Destroy'), memo, method: :delete, data: { confirm: 'Are you
    sure?' %></td>
  </tr>
<% end %>
</table>

<br />

<%= link_to (t 'New_memo'), new_memo_path %>
```

Screen is separated as a table, even though it is NOT a table.

Edit layout with table

- <table> (here is a whole table) </table>
  - <tr> (Here is a line.) </tr>
  - <td>(Here is one cell.)</td>
  - Colspan and rowspan are used to connect cells.
  - align = "center" / "left" is the allignment specification.
  - width="200" height="60" is the cell size description.

<td rowspan="4"> Connect vertically 4 cells.	<td colspan="3"> connect horizontally 3 cells.		

Heading lines, line break, horizontal line

- `<h1>Heading Line Level 1</h1>`
- The greater the number is, the deeper the level is, (and the smaller the letters are).

- In html documents, ordinary controlling letters such as CR(\r), LF(\n), tabs can not control the screen.
  - When the lines are to be broken, `<br />` tag is necessary.

- The tag for horizontal line is `<hr />`.

Character Modifiers

 bold

<i> *italic* </i>

<u> <u>underline</u> </u>

<del> delete line </del>

enlarge the font size by "2", and set the character color "RED"

Link

- <a name="zzzzz" />
- Link to the file

- Link to a certain line inside the same file
- Link to a WEB site somewhere, open with the new browser tab.

Image tag

-
- Embed Image Specification
  - src="file name" to specify the file to show
  - height="height"   Vertical size in pixels
  - width = "width"   Horizontal size in pixels

Paragraph phrasing block

- `<div>   </div>`
- Enclosed part will become one paragraph.
  - Usually, align= "left", "center" and such are specified to align the text, and also style ID is specified to look up the style for the paragraph.

- Also phrasing tags are;
  - `<p>  </p>`,
  - `<blockquote></blockquote>`

Practice

- Embed sample image file in the top screen

- Save your favorite picture in jpg, gif or png format.
  - Save in the folder 'public/images'
- In application.html.erb file; write tag to embed the image.

Report (1ˢᵗ step)

- Associate the original html file with the screen shot of memo's listing screen.
  - Draw a line from the list of html file to the screen part, for the following html tags
  - \<title\>
  - \<table\>\<tr\>\<td\>\<%= memo.content %\>..
  - \<%= link_to 'new Memo' …

- When at least the above request is covered, the report is at least rated "C."

Report (2nd step)

□ Embed one image in your memo's top screen. Modify the app/views/layouts/ application.html.erb file, and show the image file at the top end of the screen.

□ (before <%= yeild %> line)

□ Write tag to embed the image, then, report the screen shot and the html file.

□ When the above topic and the first step are covered, the report is rated "B."

Report (3ʳᵈ Step)

- ☐ Add the following sentence (or your favorite phrase) in the views/layouts/application.html.erb file;

  "This is my personal memo (message) listing WEB site. You can add your own memo (message) in the following list."

- ☐ And then, decorate the above sentence with <i>, <b>, <u>, <s>, <marquee> tags. Associate the screen with source program with lines just as 1ˢᵗ step.

- ☐ Piled up from Step 1, then the rating is "A"

Report (4th step)

- ☐ Make your WEB screen internationalized.
- ☐ Switch your virtual machine's language in two different languages. English and your own mother tongue, or English and Japanese. And report the screen shots of both two language environment.

- ☐ When the above topic and the previous 3 steps are covered, the report is rated "S."

Absence report

Submit today's regular report, then your absence record is switched to present, and the report is rated.