

Creating a RACHEL Module

Setting up the Module's index.html File

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The RACHEL module has an HTML file that defines the look and feel of the module's web page. The HTML file is generally named **index.html**, but can have any file name.

There are no style requirements for your module, but it is highly recommended that you keep the module simple with a small footprint.

The following steps will take you through creating a very simple module web page.

Part 1

1. Open a folder window and navigate to the **MyFirstModule** folder. Double click on the **index.html** file in that folder. A browser window should open displaying the contents of the file. Review the content of this file. In this very simple web page, note:
 - The flag graphic and the Page title
 - The Description
 - The Header
 - The Subheader
 - The 3 links to the content.
 - The Creative Commons rights declaration (CC BY 4.0)
 - The title of the web page that appears in the tab row of your browser
2. Click on the 3 links to content on this page and use the browser's return arrow to return to the page. Notice this page has links to an MP3, MP4, and PDF file.
3. Use a text editor, such as TextEdit on a Macintosh or NotePad on a Windows system, to open the **index.html** file for editing. You see the HTML code for this module page.
4. Before we start editing, let's review the basic HTML elements, known as tags that are used in this file. Notice that each tag has a right and left bracket that encloses one or more letters, for example the <p> tag identifies the start of a paragraph. The <p> tag is paired with the </p> tag that identifies the end of the paragraph. Most HTML tags have an opening <p> and closing tag </p>. Let's examine the important tags in this file:
 - <html> - Identifies that this is an HTML file. Notice the </html> tag terminates the file.
 - <head> - Identifies style, scripts, and other data for the file. We'll ignore this tag in our lesson.

- `<title>` - Identifies the HTML page's title that appears in the tab bar of the browser.
- `<style>` - Identifies style information such as background color, font information and padding. Again, we won't modify this information in this lesson.
- `<body>` - Identifies the body of the document and defines the content of the document, such as text, images, tables, hyperlinks, etc.
- `` - Identifies an image. It refers to a file name or URL of the image.
- `<h1>` - Identifies a top-level header.
- `<h2>` - Identifies a second level header.
- `<h3>` - Identifies a third level header.
- `` - Defines a list of un-numbered (bulleted) list of items. The `` tag defines the end of the list.
- `` - Defines a list item.
- `<a>` - Is an anchor that defines a hyperlink to another page. The `href` attribute of the `<a>` tag identifies the file or URL that is opened when the item is clicked.
- `<!--and -->` identifies a comment. This is information that the coder can use to communicate with another coder. The text between these tags does not appear in the browser window.

Let's start our coding!

5. In your text editor find the `<title>` tag in the code of the **index.html** file. Change the tag contents, `Browser Tab Name`, to `My First Module`. Save the file, refresh the web page in the browser, and check the name of the web page in the browser's tab bar. It should reflect your change.
6. Locate the `` tag and find the `` string which identifies the image that is shown in the top right corner of the web page. Change the string to read `` to change to the image in the **WP.png** file. Save the file, refresh the web page in the browser, and notice the change.
7. Find the `<h1>` tag. Then change `A title to the page to be My First Module`. Save the file, refresh the web page in the browser, and notice the change.
8. Find the first `<p>` tag and change the text between the `<p>` and `</p>` tags to read `This module is for training purposes`. Save the file, refresh the web page in the browser, and notice the change.
9. Find the `<h2>` tag and change `Header to Learning Content`.
10. Find the `<h3>` tag and change `Sub Header to Learning Materials`.
11. Notice the `` and `` tags. They define an un-numbered list, in this case with three items defined by `` and `` tags. The `
` tag at the end of the line inserts a line break.
12. Review the first `` tag and notice within the tag is an `<a>/` pair. This is an anchor that has two important parts:
 - The `href` is a `<a>` attribute that specifies the file or URL that the link goes to. In this first example that file is **Sales.mp3**.

- The string of words (Description of the Audio File Sales.mp3) after href="Sales.mp3" is the description that appears on the web page as a link.

From the browser, review this line and click to open the **Sales.mp3** file.

In the text editor, modify the Description of the Audio File Sales.mp3 to read Sales.mp3 Audio file.

Save your work, reload your browser, and verify that the text has changed. Verify that the hyperlink text still works.

13. From the text editor, modify the text that appears in the in the second and third lines lines. Make the changes suggested in the table below.

Existing Text to Be Modified	New Text to Insert
Description of the Video File Parallelogram.mp4	Parallelogram.mp4 Video File
Description of the PDF File AHeartbeatAway.pdf	AHeartbeatAway.pdf Text file

14. When you have made your changes, save your work, reload your browser, and verify the changes that you have made.

Congratulations! You have created your first RACHEL module.

Part 2

1. From your text editor, rename the **index.html** file to **index2.html**. Be sure to maintain both copies. We will make some enhancements to your module.
2. Open a folder window and notice that there are 3 MP3 files, 3 MP4 files, and 3 PDF files. Note the names of these files.
3. From the text editor, modify the **index2.html** file. Copy the text starting from the <h3> tag to the tag. Be sure to include the <h3> and the tags completely. Paste this copied code on a new line below the line with the tag and above the </body> tag.
4. Paste the code again on a new line immediately above the line with the </body> tag. You now should have 3 different list with the same contents.
5. Save the changes, reload the browser and note the changes. In your browser, you should see three sections with three links in each section.
6. We will now create an Audio Learning Materials, a Video Learning Materials, and a Written Learning Materials section with three links in each section.
7. Inside the first <h3></h3> string, change the text to read Audio Learning Materials.
8. Notice the line that reads:

```
<li> <a href="Sales.mp3">Description of the Audio File Sales.mp3</a></li><br>
```

Remember that the href value refers to the MP3 file to be loaded on the click and Description of the Audio File Sales.mp3 the string appears as the hyperlink text in the web page.

9. Edit the next two lines with strings with the following:

File name (href)	Description
Applause.mp3	Applause Audio
Surf.mp3	Surf Audio

You have created a list named Audio Learning Materials with three items in the list.

10. Save your changes, reload your browser, and verify that the links function correctly.
11. Find the next <h3></h3> line and change the text to read Video Learning Materials.
12. In this section, verify that the MP4 video is the second item in the list.
13. Modify the first and third
 lines. For the href attribute insert the file name and the text used as the hyperlink with the Description information.

File name (href)	Description
SampleVideo.mp4	Rabbit Video
small.mp4	Toy Video

14. Save your changes, reload your browser, and verify that the links function correctly.
15. Find the last <h3></h3> line and change the text to read Text Learning Materials.
16. Review the line that refers to the **AHeartbeatAway.pdf** file. Modify the lines with the MP3 and MP4 files and insert the following information:

File name	Description
RainBird.pdf	Rain Bird Book
ThingsIKnow.pdf	Things I Know Book

17. Save your changes, reload your browser, and verify that the links function correctly.
18. Review the Creative Commons (<https://search.creativecommons.org/about>) rights declaration line, specifying **CC BY 4.0** (<https://creativecommons.org/licenses/by/4.0/>). This declaration gives all users the right to copy and distribute your material. If you are releasing your material using different licensing, replace this statement with a statement declaring the open source rights.

Congratulations you have created a module with three set of learning materials!

When you have finished, return to the **How to Create a RACHEL Module Instructions** page in your web browser.

Optional Activity

In this activity, we will improve the organization of the module by placing our MP3, MP4, and PDF files in a subfolder.

1. In the folder window, create a subfolder named **Content** to your modules folder.
2. Move the MP3, MP4, and PDF files into the **Content** subfolder.
3. In each of the `` lines modify the href attribute value to refer to the path to the files that are now in the Content subfolder. For example,
``
should be changed to
``
4. Change each `` line to reflect the new location of the MP3, MP4, and PDF files. Save the changes and verify that the links are still active.

Note: We do not discuss using CSS style sheets in this lesson. CSS is supported by RACHEL modules.