



Interface Design and Development

Pass Task 1: Web Accessibility

Overview

As a first step in interface design, one needs to be familiar with the Web Accessibility Initiative and the Web Content Accessibility Guidelines. This is become aware of the need to improve the quality of your web pages, and introduce assistive technologies.

Purpose: Learn how you can test your web pages for compliance.

Task: Address and fix the accessibility issues found in the HTML form.

Time: This task should be completed in your first lab class and submitted for feedback before the start of week 3.

Resources:

- Internet Society. <http://www.internetsociety.org/sites/default/files/bp-accessibilitypaper-20121105-en.pdf>
- Web Accessibility Initiative (WAI), <http://www.w3.org/WAI/>
- Web Content Accessibility Guidelines 2.0 (WCAG2) <http://www.w3.org/TR/WCAG20/>
- World Wide Web Access: Disability Discrimination Act Advisory Notes <https://www.humanrights.gov.au/world-wide-web-access-disability-discrimination-act-advisory-notes-ver-40-2010>
- Form element reference <http://reference.sitepoint.com/html/elements-form>
- Table element reference <http://reference.sitepoint.com/html/elements-table> or <https://www.w3.org/WAI/tutorials/tables/>

Submission Details

You must submit the following files to Blackboard:

- Form task source codes (formtask.html & tabletask.html)
- PDF Reports from achecker.ca on the form task file.

Make sure that your task has the following in your submission:

- All issues are addressed and fixed for the form and table task.
- The report shows no known problems (formtask.html).
- The report shows no potential problems (tabletask.html).

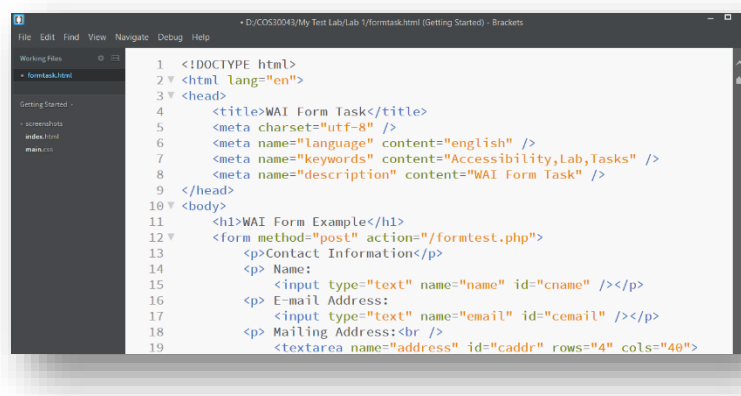
Component 1: Form Accessibility

Instructions

For this task you will fix the issues that exist in formtask.html.

The goal of this exercise is to learn how you can test your web pages for compliance

1. Download the Pass Task 1 resource. This contains the form that you need to fix.
2. Extract the zip file to your code directory (e.g. Documents/cos30043/lab01)
3. Open formtask.html and you should see the following:



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <title>WAI Form Task</title>
5   <meta charset="utf-8" />
6   <meta name="language" content="english" />
7   <meta name="keywords" content="Accessibility,Lab,Tasks" />
8   <meta name="description" content="WAI Form Task" />
9 </head>
10 <body>
11   <h1>WAI Form Example</h1>
12   <form method="post" action="/formtest.php">
13     <p>Contact Information</p>
14     <p> Name:
15       <input type="text" name="name" id="cname" /></p>
16     <p> E-mail Address:
17       <input type="text" name="email" id="cemail" /></p>
18     <p> Mailing Address:<br />
19       <textarea name="address" id="caddr" rows="4" cols="40">
```

4. Test if the form is working properly by starting the live preview, entering test data and submitting the form.

WAI Form Example

Contact Information

Name:

E-mail Address:

Mailing Address:

Credit Card Information

☐ Visa ☒ MasterCard

Number:

Expiry:

HTML - Form Data Extraction Test

The Data Entered Is Below

#	Form Variable 'name'	Submitted 'value'
1	name	Khairul
2	email	kazim@swinburne.edu.my
3	address	1, Kuching, Sarawak
4	card	mc
5	number	111169691111
6	expiry	2000

Are all name value pairs here? Anything Missing?

Note: Ensure XAMPP is turned on and the files are placed in the htdocs

- Use the Accessibility Validator <http://achecker.ca> to test the page by 'HTML File Upload', choose the file, expand the 'Options' select 'WCAG 2.0 (Level AA)' and then 'Check It'

HTML - Form Data Test x AC IDI Web Accessibility x

achecker.ca/checker/index.php

Login Register

Web Accessibility Checker

Check Accessibility By:

Web Page URL HTML File Upload Paste HTML Markup

File: formtask.html

Options

☐ Enable HTML Validator ☐ Enable CSS Validator ☐ Show Source

Guidelines to Check Against

☐ BITV 1.0 (Level 2) ☐ Section 508 ☐ Stanca Act

☐ WCAG 1.0 (Level A) ☐ WCAG 1.0 (Level AA) ☐ WCAG 1.0 (Level AAA)

☐ WCAG 2.0 (Level A) ☒ WCAG 2.0 (Level AA) ☐ WCAG 2.0 (Level AAA)

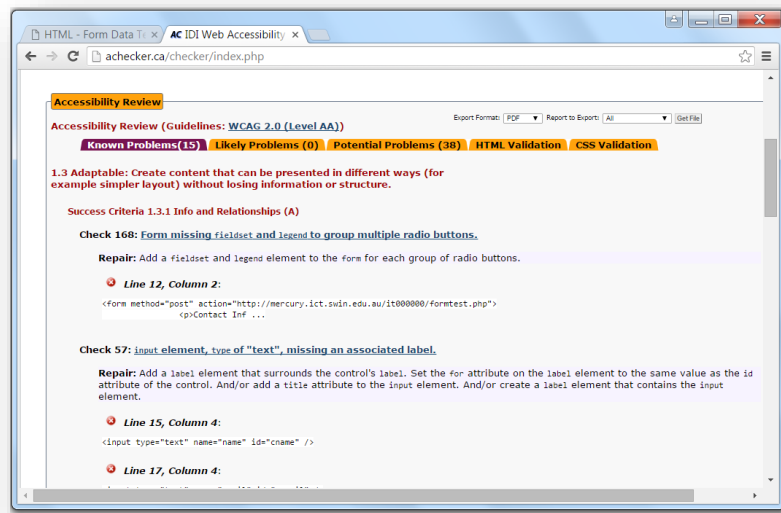
Report Format

☒ View by Guideline ☐ View by Line Number

Note: Ideally the webpage is uploaded to the web hosting service such as <http://mercury.ict.swin.edu.au>. This will enable you to use the Web Page URL option to validate webpages generated by server side scripts.

- Look at the "Accessibility Review" to see if the web page has any problems. For WCAG2.0

this shows: 'Known Problems', 'Likely Problems', 'Potential Problems'

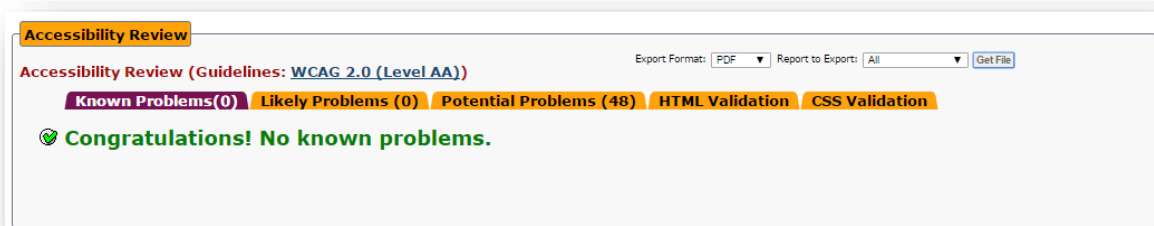


7. Look at the 'Known Problems' and address the issues:

- Add fieldsets and legends to 'chunk'/'group' the form into logical parts, particularly add a fieldset around the radio inputs.
- Add 'id' attributes for each form input control element and add 'label' elements with 'for' attributes to explicitly bind the labels to these input control elements.

Tip: Make sure input control elements have a label associated with it. Use title if no label, e.g. `<input type="text" title="search terms" /><input type="submit" value="Search" />`

8. Test again for WCAG Compliance, until there are no known problems. You can improve accessibility further by addressing at the 'Potential Problems', however this is optional.



9. Download the PDF report for submission into Canvas.

10. Remember to save the document and backup your work! Storing your work in multiple locations will help ensure that you do not lose anything if one of your computers fails, or you lose your USB Key.

Note: This is one of the tasks you need to submit to Canvas. Check the assessment criteria for the important aspect your tutor will check.

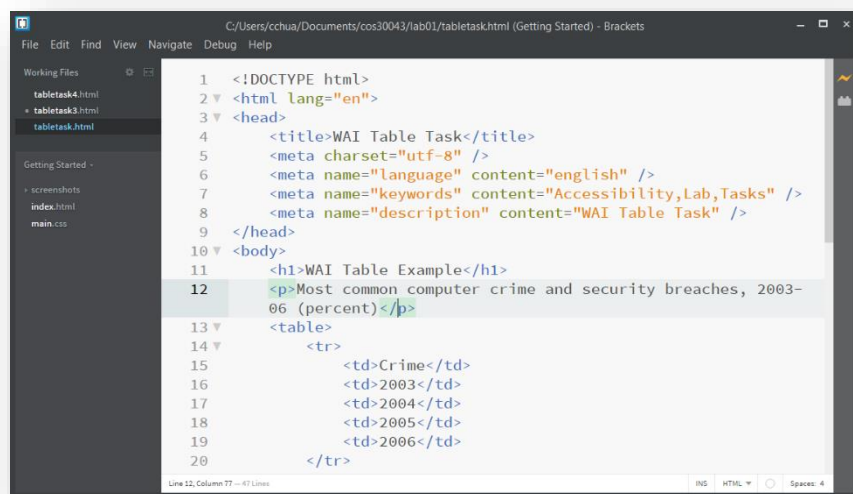
Component 2: Table Accessibility

Instructions

For this task you will fix the issues that exist in formtask.html.

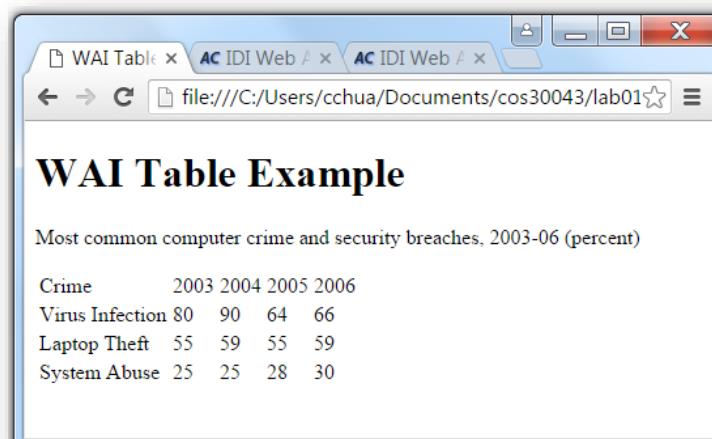
The goal of this exercise is to learn how you can test your web pages for compliance

1. Open tabletask.html and you should see the following:



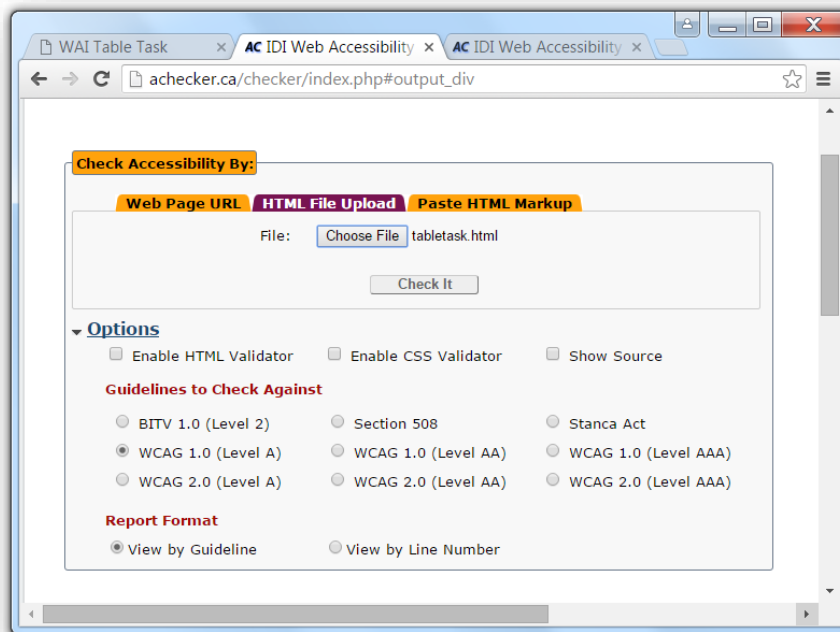
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <title>WAI Table Task</title>
5   <meta charset="utf-8" />
6   <meta name="language" content="english" />
7   <meta name="keywords" content="Accessibility,Lab,Tasks" />
8   <meta name="description" content="WAI Table Task" />
9 </head>
10 <body>
11   <h1>WAI Table Example</h1>
12   <p>Most common computer crime and security breaches, 2003-
13   06 (percent)</p>
14   <table>
15     <tr>
16       <td>Crime</td>
17       <td>2003</td>
18       <td>2004</td>
19       <td>2005</td>
20       <td>2006</td>
```

2. Test if the table is displaying properly by starting the live preview.



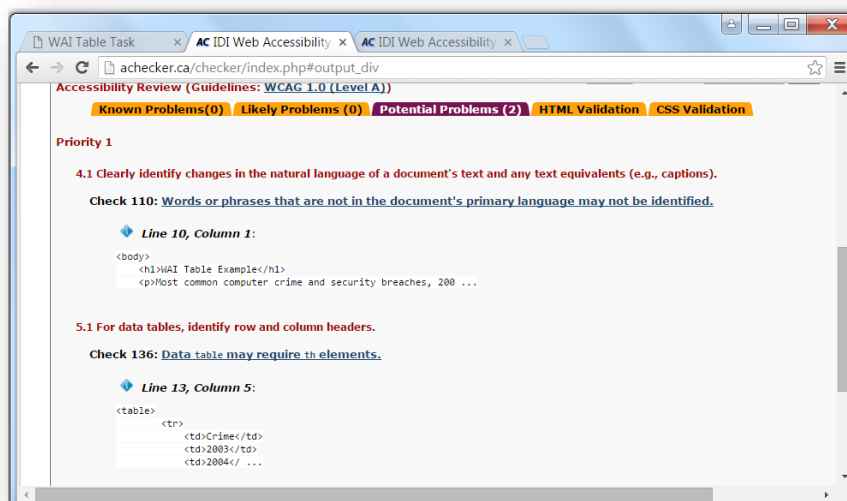
Note: The table will have no visible grid lines unless a CSS is applied to it. You must not use the border attribute under HTML5.

- Use the Accessibility Validator <http://achecker.ca> to test the page by 'HTML File Upload', choose the file, expand the 'Options' select 'WCAG 1.0 (Level A)' and then 'Check It'



Note: Select WCAG 1.0 for this task, 2.0 would require specification of text direction which assist screen readers on how the table can be read.

- Look at the "Accessibility Review" to see if the web page has any problems. For WCAG2.0 this shows: 'Known Problems', 'Likely Problems', 'Potential Problems'

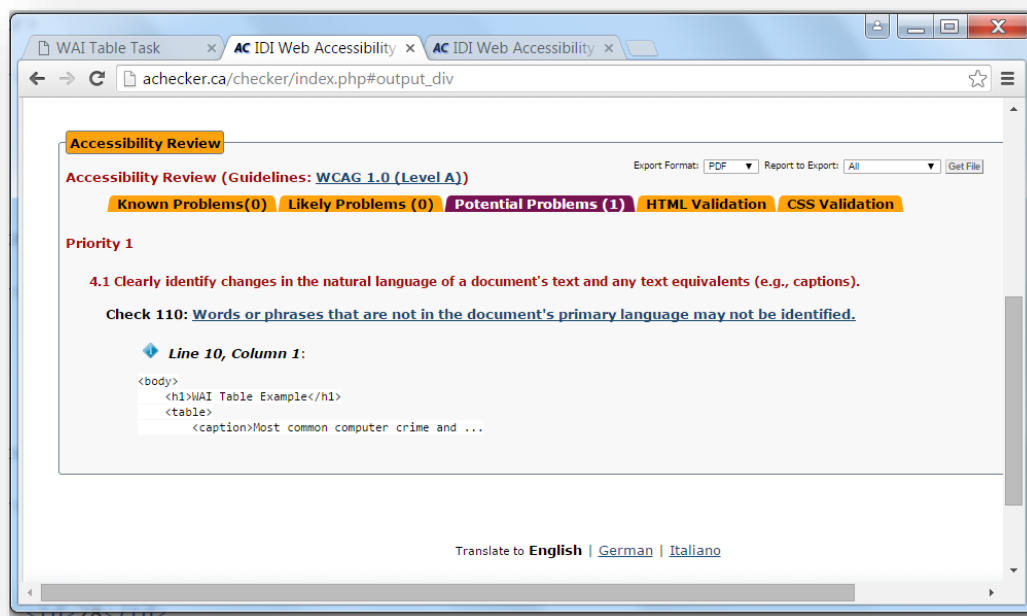


- Look at the 'Potential Problems' and address the issues:
 - Add a caption element.

- b. Change the relevant 'td' elements to 'th' elements.
- c. Optional for this tasks, add 'scope' attributes to all the 'th' elements, or add 'id' attributes to the 'th' elements and 'headers' attributes to each of the 'td' elements, to bind the relevant 'th' to each 'td'

Note: WAI Validators may not detect all the issues with tables. For a complex table, use headers attributes, and/or col group, and/or thead/tbody/tfoot. Potential table problems may include missing th, missing scope or missing headers.

6. Test again for WCAG Compliance, until only 1 potential problem remain.



Note: Validators may return false positive results.

7. Download the PDF report for submission into Blackboard.
8. Remember to save the document and backup your work! Storing your work in multiple locations will help ensure that you do not lose anything if one of your computers fails, or you lose your USB Key.