



COS30045 Data Visualisation

Task 1.1 Technology Fundamentals HTML and CSS Review

ILO	Create web-based interactive visualisations using real-world data sets.
Aim:	Demonstrate basic familiarity with HTML and CSS coding. Set up a client-server environment Upload webpage to server and view through web client Create a webpage with the following features: HTML code demonstrating the use of > 5 different tags Use CSS to style html elements on webpage
Resources:	<i>Textbook:</i> Murray Ch 3 Murray on ProQuest Murray on Safari <i>Web Resources:</i> W3Schools Mozilla Developer Network codeacademy W3Schools HTML Quiz W3Schools CSS Quiz <i>Videos:</i>
To be marked as Complete your submission must:	Submit working code that meets the requirements specified in document below. Demonstrate appropriate use of HTML and CSS. Properly formatted code Well commented code with references to code sourced from web, stack overflow etc. where appropriate. Demonstrate and explain code to tutor in class.
Submission	Submit to Doubtfire <ul style="list-style-type: none">• screenshot of final webpage• code Bring code to class to demonstrate to tutor

Overview

In this unit you will learn to use D3 to create web-based visualisations. D3 is a JavaScripting library that is used in conjunction with HTML and CSS. Therefore, before starting with D3 you will need to review the basics of HTML and CSS coding.

Tip: If you have done COS10011 Creating Web Applications, it might be worth going back and reviewing your notes. We expect that the good practices you learnt in CWA are continued in this unit.

Note: This Task Guide is not meant to be fully explanatory. If you haven't done any web programming before you will need to do extensive self study to catch up with the basics. W3Schools has excellent tutorials and examples that will help you get through these basic exercises. There is also a chapter on basic HTML and CSS in the text book Interactive Data Visualisation for the Web by Murray.

Step 1: Start a basic HTML template

In this unit we will be using the programming text-editor Atom to write our code. Feel free to use other text-editors of your choice. Set up a basic HTML template. There is an example below in case you have forgotten how.

Requirements 1

Make sure you include:

- language and charset
- informative meta data
- a title for your web page

```
1  <!DOCTYPE html>
2  <html lang="en">
3
4  <head>
5      <meta charset="UTF-8"/>
6      <meta name="description" content="Data Visualisation Exercise 1"/>
7      <meta name="keywords" content="HTML, CSS"/>
8      <meta name="author" content="Your name here"/>
9
10     <title>Task 1.1 HTML and CSS Demo Page</title>
11
12 </head>
13
14 <body>
15
16     <!-- Code goes here! -->
17
18 </body>
19
20 </html>
```

Note: This example makes use of place holder text known as “Lorem ipsum”. You can use your own or take a look at the data we going to display and write your own description of it for your web page.

Step 2 Demonstrate your knowledge of basic HTML tags

Take a look at the following screen shot. Build a similar web page of your own.

Requirements 2:

Make sure you include examples of:

- heading levels
- paragraphs
- ordered list
- footer
- bolding
- italics

The screenshot shows a web page layout with several HTML elements highlighted by yellow callout boxes:

- Title of Article about Interesting Visualisation**: A Level 1 Heading.
- Author of Interesting Article**: A Level 2 Heading.
- Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa...**: A Paragraph.
- inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo**: A bolded text.
- aspermatur**: An italicized text.
- Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem.**: A Paragraph.
- Lorem ipsum dolor sit.**
• Nulla facilisi. Curabitur scelerisque.
• Donec ac tristique ipsum.
• Pellentesque vitae nulla.: An Unordered List.
- Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?**: A Paragraph.
- COS30045 Data Visualisation**: A Footer.

Step 3 Add an image and html link

Add the charts to article. At the moment the charts are static png files made in Excel. You can find the files on Doubtfire (NT_Naplan_Reading_Results_2017.png and NT_Naplan_Reading_Results_2017.png).

Requirements

Title of Article with Interesting Visualisation

Author of Interesting Article

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit **aspernatur** aut odit aut fugit, sed quia consequuntur agni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia *non numquam eius modi tempora* incidunt ut labore et dolore magnam aliquam quaerat voluptatem.

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- Nulla facilisi. Curabitur scelerisque.
- Donec ac tristique ipsum.
- Pellentesque vitae nulla.

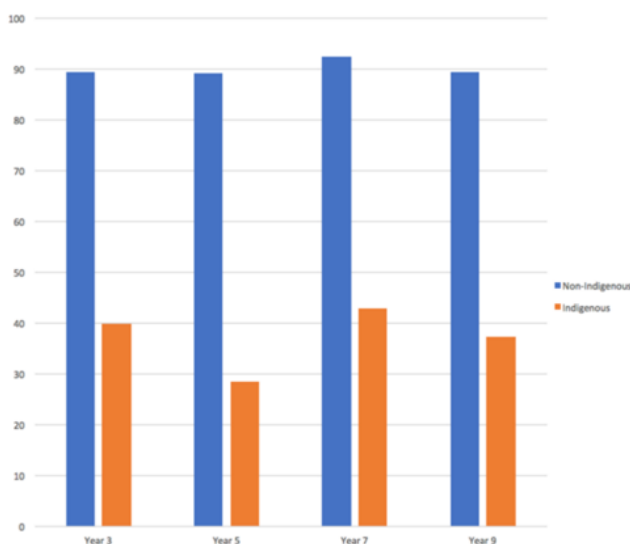


Fig 1. Percent of children above national minimum standard in reading in 2011 for Year 3, 5, 7 and 9 for Non-Indigenous and Indigenous children in the Northern Territory. Data Source: [NAPLAN results](#)

Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

Tip: The figure in this webpage is tagged with <figure>, and the caption with <figcaption> This gives you a little more control over these elements later.

Step 4 Add some Cascading Style Sheet (CSS) styles

At the moment the webpage is displayed using default styles. Make it look a bit better by using CSS.

Requirements

Make sure you include:	<ul style="list-style-type: none"> prevent figure caption from extending past image styling to Footer
<ul style="list-style-type: none"> styling to Header 1 and 2 (e.g., change colour, font, size, weight, margins...) italicise figure caption 	

Your styling does not need to be the same as the example, but try to make it look elegant!

Title of Article with Interesting Visualisation

Author of Interesting Article

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit **aspernatur** aut odit aut fugit, sed quia consequuntur agni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia *non numquam eius modi tempora* incidunt ut labore et dolore magnam aliquam quaerat voluptatem.

- Lorem ipsum dolor sit.
- Nulla facilisi. Curabitur scelerisque.
- Donec ac tristique ipsum.
- Pellentesque vitae nulla.

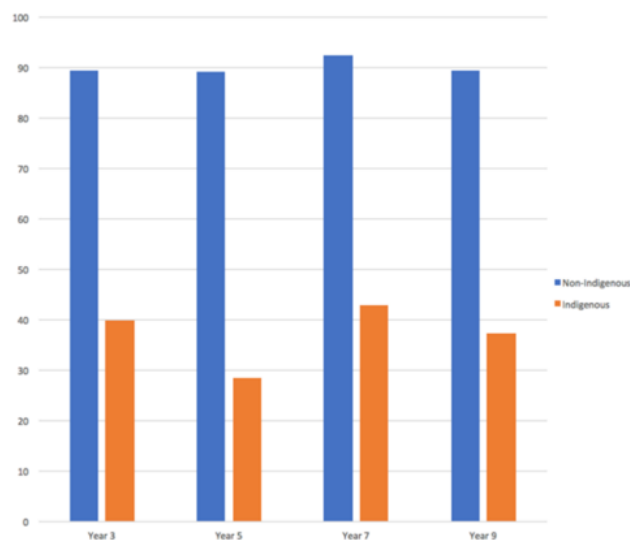


Fig 1. Percent of children above national minimum standard in reading for 2011 Year 3, 5, 7 and 9 for Non-Indigenous and Indigenous children in the Northern Territory. Data Source: [NAPLAN results](#)

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