

C4135

Lecture 10

Finishing your coursework: Testing & evaluation

Submitting coursework

- Submit CI435 assignment - **15:00 Friday January 15 2021**
- Online submission link and instructions - student**central**>CI435>Assessment>[COURSEWORK](#)
- Submit the following –
 1. **ZIP file** containing -
 - **Website folder** with HTML, CSS and media files
 - **PDF** files or screenshots of HTML and CSS validation
 2. **URL** of your website (on [brighton.domains](#)) in the text comment box you will see when you submit work
- Failure to follow the submission instructions may result in us being unable to mark your work

If you are still not sure how to create a zip file **try this out before the deadline**

Test the URL before you submit to make sure it works!

ASSIGNMENT SUBMISSION

Text Submission

[Write Submission](#)

For the toolbar, press ALT+F10 (PC) or ALT+FN+F10 (Mac)

Text Editor Toolbar: Paragraph, Arial, 3 (12pt), Bold, Italic, Underline, Strikethrough, Bulleted List, Numbered List, Indent Left, Indent Right, Outdent, Undo, Redo, Link, Unlink, Source Code, Full Screen, Help, Close.


URL: <http://itsuite.it.brighton.ac.uk/esg1/mysite/index.html>

Path: p Words:1

Attach Files

[Browse My Computer](#) [Browse Content Collection](#)


Attached files

File Name	Link Title
 188270681_CI435.zip	188270681_CI435.zip Do not attach

Click this button to locate your zip file and attach it

Zip filename should not identify you by name

Anonymous marking

- This module uses **anonymous marking**
- Please do not identify the zip file you submit by name - use your student ID instead  188270681_CI435.zip
- The work will be marked by the module tutors anonymously - we will only know the student ID (your work won't necessarily be marked by your tutor)
- *Ensure that your work doesn't have your name in it (or photo!)*
- Aim of the anonymous marking -
 - To avoid 'unconscious bias' and any risk of unfairness

Submitting coursework


- Before you submit your work re-read the assignment brief and check that you have done everything required
- Look at the **marking criteria** to see if work can be improved
- **Check** that all relative links between website files work
- **Check** that the URL is correctly formatted and can be accessed through a browser
- If you experience a studentcentral technical problem when submitting work email Jennie Harding jh1033@brighton.ac.uk before the deadline with a screenshot of the error message and the zip file you were trying to upload.
- **Don't leave submission until the last possible minute**

Marking criteria – see assignment brief

CRITERIA & WEIGHTING	A+ >80%	A >70%	B 60-69%	C 50-59%	D 40-49%	FAIL 30-39%	FAIL <30%
Technical competence 35%	Exceptional use of valid, well-formed HTML and CSS media queries to create a <u>fully responsive website</u> . Very advanced standard for this level.	Excellent use of valid, well-formed HTML and CSS media queries to create a <u>fully responsive website</u> . Advanced standard for this level.	Good use of valid, well-formed HTML and CSS media queries to create a <u>responsive website</u> .	Satisfactory understanding of how to use well-formed HTML and CSS. Website may not be fully responsive.	Weak understanding of how to use well-formed HTML and CSS. Website is not responsive.	Only partial understanding of standards-based web development; many code errors. Below what is required at this level.	Lacks understanding of web standards and how to apply them
Content and styling 25%	Exceptionally creative use of CSS, HTML, text and image, possibly other media, to create an engaging website.	Very creative use of CSS, HTML, text and image, possibly other media, to create an engaging website.	Creative use of CSS, HTML, text and image, possibly other media, to create an engaging website.	Satisfactory use of CSS, HTML, text and image. Website presentation may not be optimised for different screen widths.	Shortcomings in use of CSS, HTML, text and image.	Poor use of CSS, HTML, text and image	Very poor use of CSS, HTML, text and image
Awareness of legal and ethical issues 10%	Exceptional understanding of issues; sources credited through hyperlinks and references; permission to use all 3 rd party assets and code.	Excellent understanding of issues; sources credited through hyperlinks and references; permission to use all 3 rd party assets and code.	Good understanding of issues; sources credited through hyperlinks and references; permission to use all 3 rd party assets and code.	Satisfactory understanding of issues; most sources credited through hyperlinks and references; permission to use 3 rd party assets and code.	Weak understanding of issues; few sources, may not be fully credited or referenced.	Lacks understanding of copyright; no credits or hyperlinks to sources; use of 3 rd party assets and code without permission.	No awareness, or not attempted. Plagiarised 3 rd party assets or code.
Independent study 10%	Evidence of Exceptional independent study to create the website	Evidence of excellent independent study to create the website	Evidence of good independent study to create the website	Evidence of satisfactory independent study to create the website	Evidence of little independent study to create the website, mainly relying on examples provided.	Little or no evidence of independent study to create the website	No evidence of any independent study having been done
Reflection on learning 20%	Exceptionally insightful and well-documented reflection on the process and learning in the Journal	Very insightful and well-documented reflection on the process and learning in the Journal	Thorough documenting and reflection on the process and learning in the Journal	Satisfactory documenting and reflection on the process and learning in the Journal	Weak reflection and little documentation of the process and learning in the Journal, or incomplete journal	Poor documentation and reflection on process and learning in the Journal, which is incomplete	No evidence of learning in the Journal, which is incomplete

In Year Module Retrieval (IYMR)

- Anyone who **submits** the assignment, but does not pass, is eligible for IYMR
- You will be offered advice on how to improve your work; then re-submit
- More details in February when the work has been marked
- See the [IYMR studentcentral page](#)




University of Brighton

Take Two

This module is part of the **In Year Module Retrieval** process, which allows students to reattempt failed work before the summer resit period.

Click this banner to find out more!



Submitting late work

- You can submit before the deadline – the link opens on in last week of term (now)
- You can submit as many times as you like, up to the deadline
- Once the deadline has passed don't make any changes to your work on *brighton.domains*
- We will accept late work up to **14 days after the deadline**: the mark for late work (if it is a pass) will be capped at **40%**
- There will be a submission link for **LATE AND EXTENSION COURSEWORK**
- If you have grounds for an extension, or an LSP, contact your course leader before the deadline to request extra time
- We aim to mark the work within 20 working days
- Feedback and grades will be provided through 'My grades'

Completing your *Learning Journal*

- The following things are assessed in your *Learning Journal* -
 - **Awareness of legal and ethical issues** – no breach of copyright in the use of images, graphics or other content in the web pages. Referencing all sources that have been used – *e.g.* for snippets of HTML and CSS, images – in code comments, or in the *Learning Journal* posts and References.
 - **Reflection on learning** – ability to reflect critically on your learning and achievement
- The final *Learning Journal* posts should be –
 - How you created and styled the *Tutorial* page and contact form – with links to resources used for learning
 - A short evaluation of your work and what you learned

This lecture will cover...

- Testing and evaluation
 - The difference between testing and evaluation
 - Testing - when, why, what and how
 - Tools to debug HTML and CSS
 - Evaluation - when, why, what and how
- Code validation; improving your CSS code

These are the final things you need to know to finish your coursework and improve your grade - we want you to achieve a good result

Testing and evaluation

- **Test** that web pages –
 - Are compliant with W3C HTML and CSS **web standards**
 - Function correctly – *e.g.* all links work, images load
 - Display on different 'user agents' - *i.e.* browsers
 - Display on different devices and platforms – *i.e.* desktop, tablet, mobile
 - Are accessible to users with disabilities – *e.g.* sight impairment
- **Evaluate** –
 - Whether the website has met its aims and objectives – *i.e.* client's and users' requirements
 - If you have met the CI435 assessment brief – marking criteria

Test, test, test as you work

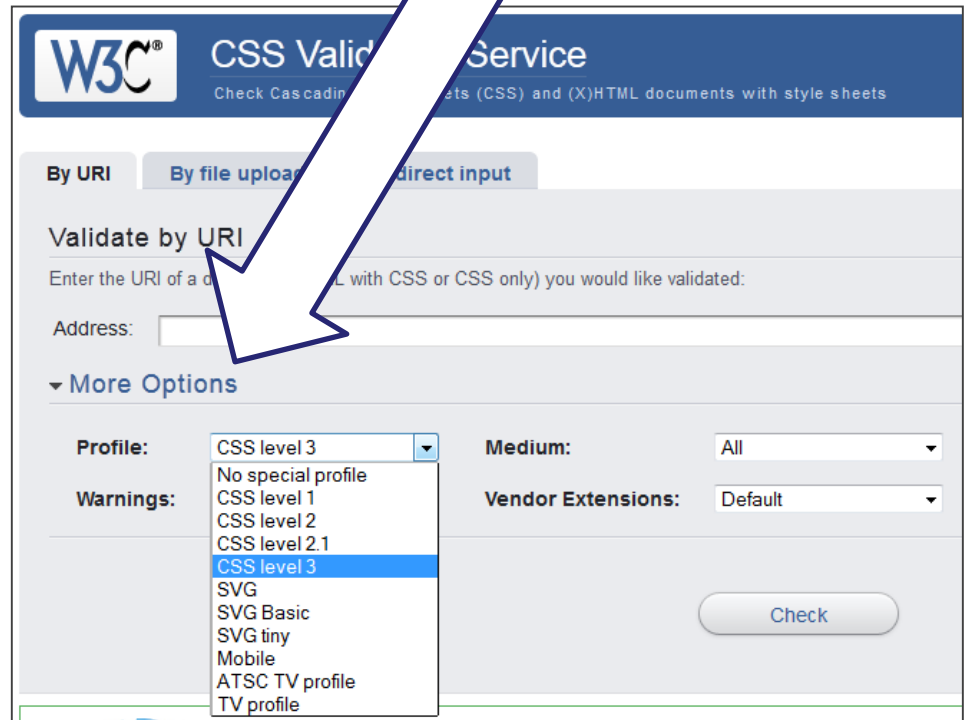
- We will mark your work on the latest version of **Chrome** or **Firefox** ... so develop and preview your web pages in these browsers
- Making your web pages display well on different and older browsers is ***not*** one of the assignment requirements - although this is very important for real-world projects
- Preview constantly ... interactive features and some CSS styles can only be seen in the browser
- Validate HTML *before* styling the page and every time that you make a change

Validating HTML and CSS

- You have to hand in screenshots or PDF file showing the summary results of validating the HTML with the **W3C Markup Validation Service** -
<http://validator.w3.org/>
- Errors should be fixed, warnings *may* be unavoidable (*e.g.* YouTube embed code, Google Fonts URLs)
- In addition, HTML and CSS should be well-written - consistent, indented and **commented**
- If you have errors and are unable to fix them, write about this in your last *Learning Journal* post

Validating HTML and CSS

- Check stylesheets with the **W3C CSS Validation Service** - <http://jigsaw.w3.org/css-validator/>
- If you have used CSS3 properties select 'More Options' to validate as CSS level 3
- Don't worry if the newest CSS3 properties won't validate – this won't lose marks
- Don't print the whole report with all the stylesheet CSS – just the **summary of the results**



The screenshot shows the W3C CSS Validation Service interface. At the top, the W3C logo and the title 'CSS Validation Service' are displayed, along with the subtitle 'Check Cascading Style Sheets (CSS) and (X)HTML documents with style sheets'. Below this, there are three tabs: 'By URI', 'By file upload', and 'Direct input'. The 'By URI' tab is selected. Under this tab, there is a section 'Validate by URI' with the instruction 'Enter the URI of a document (HTML with CSS or CSS only) you would like validated:'. Below this is a text input field labeled 'Address:'. A large white arrow points from the top right towards the 'More Options' section. The 'More Options' section is expanded, showing a 'Profile' dropdown menu with the following options: 'No special profile', 'CSS level 1', 'CSS level 2', 'CSS level 2.1', 'CSS level 3' (which is highlighted), 'SVG', 'SVG Basic', 'SVG tiny', 'Mobile', 'ATSC TV profile', and 'TV profile'. To the right of the 'Profile' dropdown is a 'Medium' dropdown menu set to 'All'. Below the 'Profile' dropdown is a 'Warnings' section. To the right of the 'Medium' dropdown is a 'Vendor Extensions' dropdown menu set to 'Default'. At the bottom right of the form is a 'Check' button.

De-bugging CSS

- Validator error messages are often obscure – but they do tell you what line the error is in
- De-bug validation errors in order – correcting an earlier error will often sort out a later one
- Re-validate *every time* you correct an error
- Common problems –
 - Wrong spelling of a property in CSS - *e.g.* 'color'
 - Mismatch between `class` or `id` attribute name in the HTML and the CSS selector
 - CSS syntax error – missing or duplicate `;` `:` or `}`
- If you can't locate an error try commenting out CSS rules one by one to try and isolate it

Limitations of validation

- HTML and CSS validators will only test that your files comply with the web standard (HTML5, CSS2.1 or 3)
- They do not show whether a web document or stylesheet is well-coded *e.g.*
 - Redundant tags in HTML that are not marking up content
 - Redundant, repetitive or conflicting declarations in the CSS that are not styling any element
- It's important to read through and edit HTML and CSS files to quality control code – don't just rely on the validators

Cleaning up your CSS

- Once you have learned the basics try to write elegant and economical CSS
 - Time = money
 - You *and* other people will need to edit and maintain your web pages
 - `/*comment your CSS rules*/`
- CSS may validate, but still not be well-written – **especially if you are using Dreamweaver**
 - Don't write more rules than are needed
 - Inspect stylesheet to check that all rules and declarations are needed and are actually styling their target element
 - Remove unused / duplicated rules

Cleaning up your CSS

- A CSS value assigned to a property in an HTML document will be ***inherited*** by that element's 'children' *e.g.*
 - The **<body>** page font style (font-family, size, color *etc.*) will be inherited by all the text elements on the page, unless over-ridden by a subsequent, more specific rule
 - The background colour of an element will be inherited by all the other elements nested inside it (default background is transparent) – unless over-ridden by their own specific background colour rule
- Therefore ... there is no need to specify all the properties for every element, if some of them can be inherited from a parent element in which it is nested

Cleaning up your CSS

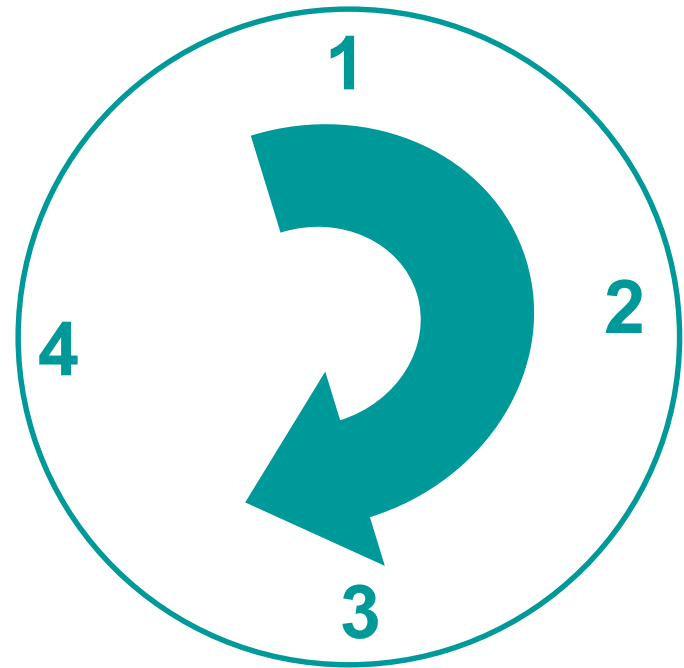
- No need to specify all padding and margin properties separately *e.g.*

```
.box {  
    padding-top: 5px;  
    padding-right: 5px;  
    padding-bottom: 10px;  
    padding-left: 0;  
}
```

- Shorthand is -

```
.box {  
    padding: 5px 5px 10px;  
}
```

- Specify in clockwise order



Cleaning up your CSS

- Border-width, border-color and border-style (for all sides of the box) can also be specified together –

```
.box {  
    border-color: #FFF000;  
    border-width: 1px;  
    border-style: dotted;  
}
```

- Shorthand is -

```
.box {  
    border: #FFF000 1px dotted;  
}
```

- You can't specify different values for different sides of the box using this shorthand

Cleaning up your CSS

- Rules can also be grouped for economy –

```
h1 {  
    font-family: Helvetica, Arial, sans-serif;  
    color: #333; }  
h2 {  
    font-family: Helvetica, Arial, sans-serif;  
    color: #333; }
```

- Shorthand is -

```
h1, h2, h3 {  
    font-family: Helvetica, Arial, sans-serif;  
    color: #333; }
```

- Can be used to group any selectors with common properties and values; can also have a specific rule for the same selector to specify it's own properties

Testing page functions

- Do the **images** load OK? Check **relative links** to website files – especially if you have moved files around, or renamed them, or have linked to files stored on your home computer
- **Links** – do all the pages link together correctly? Are links to external sites working?
- **Interactive features** – forms, email links – are they functioning correctly?
- A common error is to link to files on your home computer, which can't be retrieved by the browser from another computer

Testing accessibility

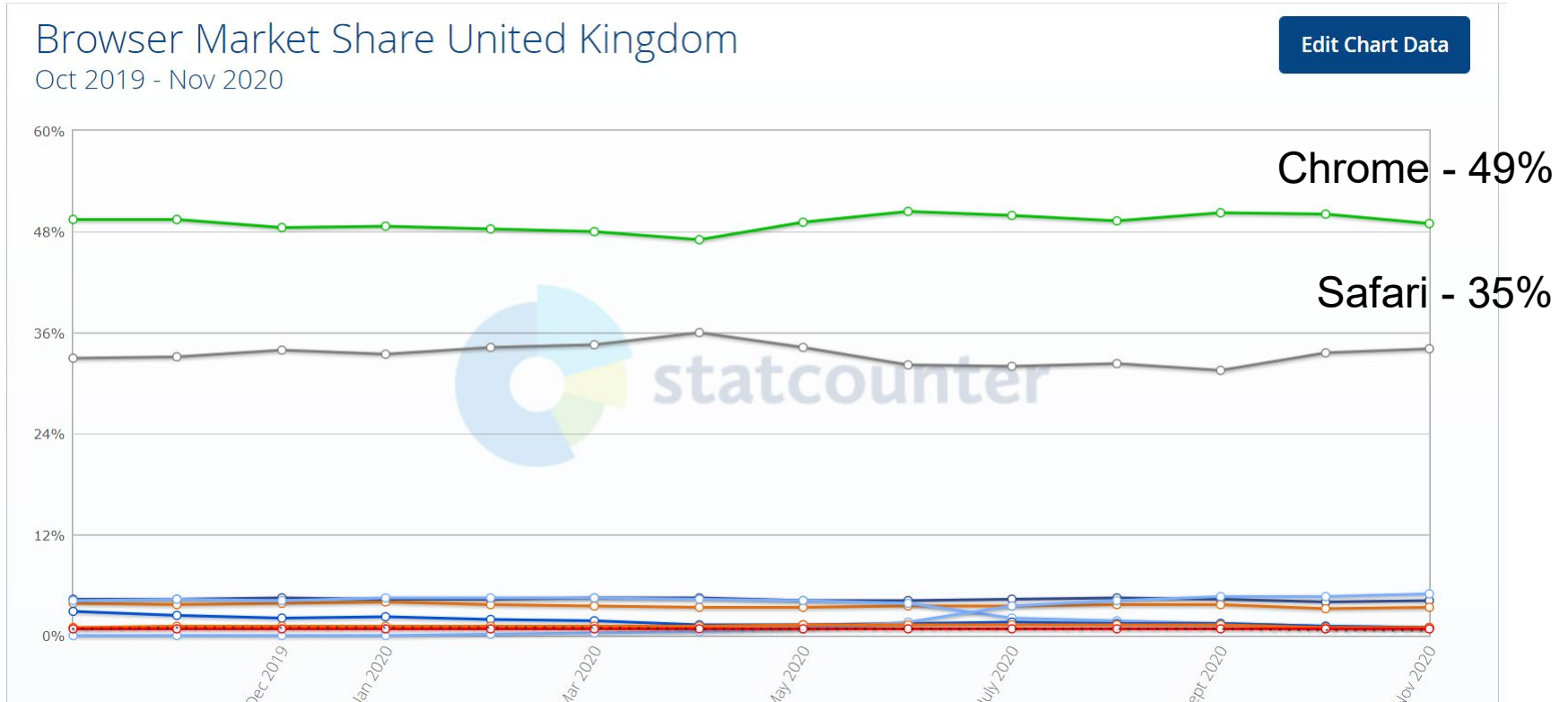
[Link - Gov.uk - Making your website accessible](#)

- Is the text **readable**?
 - Check contrast of foreground and background
<https://webaim.org/resources/contrastchecker/>
- Do **images** have **alt-text**?
- Are **links obvious** e.g. styled in some way?
- Are **headings logically correct** e.g. ordered, consecutive?
- Some of this will be addressed by validating – other parts by manual examination. For an overview of accessibility, have a look here: <https://webaim.org/intro/>

Cross-browser optimisation

- What browser engine, browser and platform will your website audience be using? For example -
 - **Webkit** open source browser engine – Mac OSX Safari, Chrome, iPhone and iPad mobile browsers
 - **Gecko** – Mozilla FireFox
 - **Microsoft** Internet Explorer 10.0? or an older version *e.g.* IE 6.0, 7.0 or 8.0? Only IE 9.0 and above provide good standards compliance
 - Text only browser - **Lynx**
- In real-world projects ensure that a site renders acceptably on all browsers in common use
- Test your site on different platforms (Mac, PC)

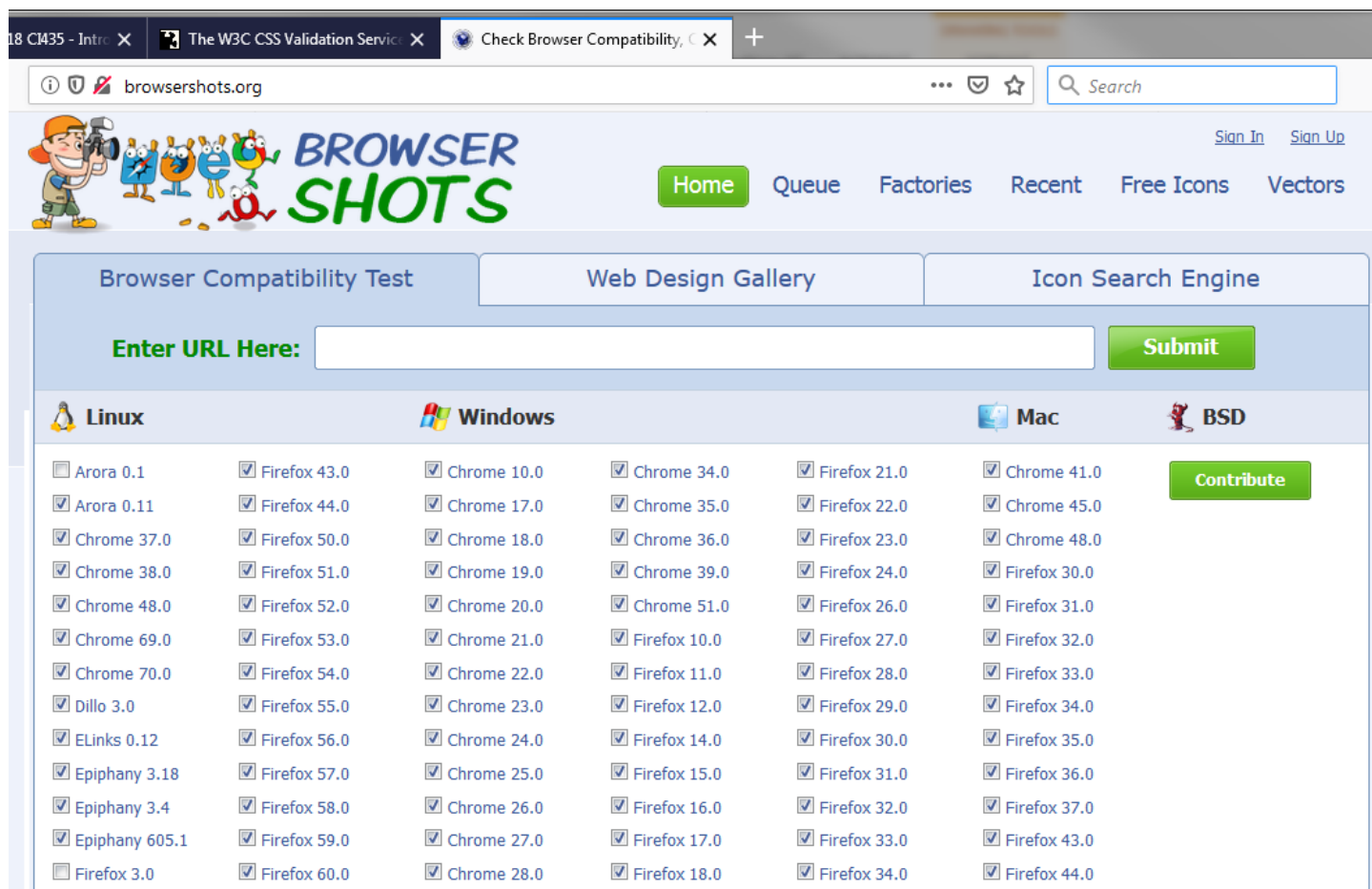
UK - browser market share



<https://gs.statcounter.com/browser-market-share/all/united-kingdom>

Browser optimisation

- Can also test by submitting page URLs to the following website - <http://browsershots.org/> (takes time to get results)



The screenshot shows the Browsershots.org website interface. At the top, there's a navigation bar with links: Home, Queue, Factories, Recent, Free Icons, and Vectors. Below this is a section titled "Browser Compatibility Test" with a "Web Design Gallery" and "Icon Search Engine" tab. The main area features a "Enter URL Here:" input field and a "Submit" button. Below the input field, there's a table of browser versions for Linux, Windows, Mac, and BSD. Each browser version is preceded by a checkbox, indicating it can be selected for testing. A "Contribute" button is located at the bottom right of the table.

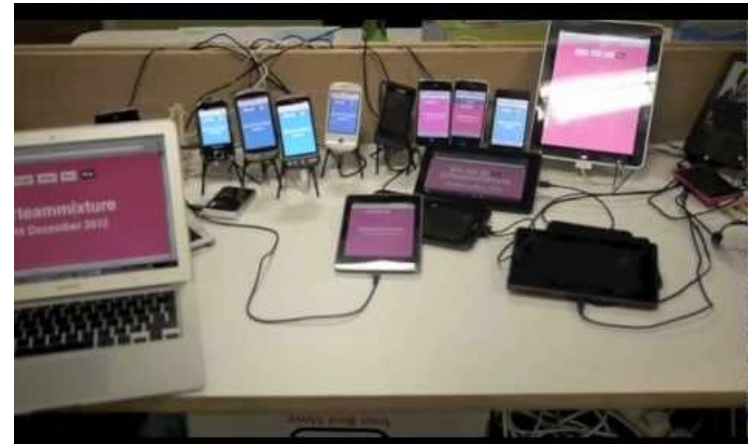
Linux	Windows	Mac	BSD
<input type="checkbox"/> Arora 0.1	<input checked="" type="checkbox"/> Firefox 43.0	<input checked="" type="checkbox"/> Chrome 10.0	<input checked="" type="checkbox"/> Chrome 34.0
<input checked="" type="checkbox"/> Arora 0.11	<input checked="" type="checkbox"/> Firefox 44.0	<input checked="" type="checkbox"/> Chrome 17.0	<input checked="" type="checkbox"/> Chrome 35.0
<input checked="" type="checkbox"/> Chrome 37.0	<input checked="" type="checkbox"/> Firefox 50.0	<input checked="" type="checkbox"/> Chrome 18.0	<input checked="" type="checkbox"/> Chrome 36.0
<input checked="" type="checkbox"/> Chrome 38.0	<input checked="" type="checkbox"/> Firefox 51.0	<input checked="" type="checkbox"/> Chrome 19.0	<input checked="" type="checkbox"/> Chrome 39.0
<input checked="" type="checkbox"/> Chrome 48.0	<input checked="" type="checkbox"/> Firefox 52.0	<input checked="" type="checkbox"/> Chrome 20.0	<input checked="" type="checkbox"/> Chrome 51.0
<input checked="" type="checkbox"/> Chrome 69.0	<input checked="" type="checkbox"/> Firefox 53.0	<input checked="" type="checkbox"/> Chrome 21.0	<input checked="" type="checkbox"/> Firefox 10.0
<input checked="" type="checkbox"/> Chrome 70.0	<input checked="" type="checkbox"/> Firefox 54.0	<input checked="" type="checkbox"/> Chrome 22.0	<input checked="" type="checkbox"/> Firefox 11.0
<input checked="" type="checkbox"/> Dillo 3.0	<input checked="" type="checkbox"/> Firefox 55.0	<input checked="" type="checkbox"/> Chrome 23.0	<input checked="" type="checkbox"/> Firefox 12.0
<input checked="" type="checkbox"/> ELinks 0.12	<input checked="" type="checkbox"/> Firefox 56.0	<input checked="" type="checkbox"/> Chrome 24.0	<input checked="" type="checkbox"/> Firefox 14.0
<input checked="" type="checkbox"/> Epiphany 3.18	<input checked="" type="checkbox"/> Firefox 57.0	<input checked="" type="checkbox"/> Chrome 25.0	<input checked="" type="checkbox"/> Firefox 15.0
<input checked="" type="checkbox"/> Epiphany 3.4	<input checked="" type="checkbox"/> Firefox 58.0	<input checked="" type="checkbox"/> Chrome 26.0	<input checked="" type="checkbox"/> Firefox 16.0
<input checked="" type="checkbox"/> Epiphany 605.1	<input checked="" type="checkbox"/> Firefox 59.0	<input checked="" type="checkbox"/> Chrome 27.0	<input checked="" type="checkbox"/> Firefox 17.0
<input type="checkbox"/> Firefox 3.0	<input checked="" type="checkbox"/> Firefox 60.0	<input checked="" type="checkbox"/> Chrome 28.0	<input checked="" type="checkbox"/> Firefox 18.0
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			<input checked="" type="checkbox"/> Firefox 36.0
			<input checked="" type="checkbox"/> Firefox 37.0
			<input checked="" type="checkbox"/> Firefox 43.0
			<input checked="" type="checkbox"/> Firefox 44.0

Browser optimisation - assignment

- Optimising a site to render acceptably in all browsers in use can be tricky and time-consuming...
- ...may involve creating 'hacks' for older (IE) browsers that do not meet web standards
- **Browser optimisation is not required for this assignment**
 - Ensure that web pages render correctly in Firefox or Chrome on a PC
 - *Try* to get them working in the latest version of IE - but if you cannot sort out IE glitches don't worry
- Also important to test website on a tablet and smartphone, or a simulator *e.g.* Chrome Dev Tools Device Mode - <https://developers.google.com/web/tools/chrome-devtools/device-mode/>

Responsive websites: testing

- Google website speed test - <https://testmysite.withgoogle.com/intl/en-gb/>
- Google mobile-friendly test - <https://search.google.com/test/mobile-friendly>
- **ProtoFluid** - an app for testing responsive prototype web pages (by **local** or host URL) and viewing them as if on a range of devices – iPad, iPhone *etc.* <http://protofluid.com/>
- Essential to test on as many actual devices as possible



Evaluation

The marking criteria for the assignment includes -

- **'Content and styling'** – use of HTML, CSS, text, image, other media to create an **engaging** responsive website
- This should be demonstrated in all 3 pages
- How can success be evaluated and measured?

What to evaluate?

'Usability'

- Ease of use and learning how to use
- Memorability - can users remember how to use the site if they return after time has elapsed?
- Efficiency - can **tasks** be carried out without making errors?
E.g. correctly filling in and submitting a form

Other criteria

- Acceptability - do users like the site?
- Is the user experience (UX) good on a small screen?
- 'Stickiness' - will users stay on the site and return?
- Trust - do users trust the information? Would they buy from the site? Would an employer give you a job interview?

Evaluation

- The development process is a constant cycling between design, evaluation and redesign
- Evaluation can be informal -
 - Self generated - “I’ll try blue - no that doesn’t work”
 - Based on peer review - “I’d reduce the number of items in that menu if I were you, it’s a bit confusing”
 - Based on casual user testing – “Where do you think this link goes to if you click it?”

How to evaluate

- For your assignment – ask your friends and family what they think of your *Tutorial* page –
 - Have you presented the *Tutorial* in an engaging way? Would your target audience want to use it?
 - Do they like the design features – colour, typography, images and media?
 - Are the instructions easy to follow?
 - How could the pages be improved?
- This can be done quickly and informally - but ask at least one other person for feedback on your assignment web page
- Finally, write up the findings from evaluation in your *Learning Journal*

Resources

- *Can I use...* Compatibility tables for support of HTML5, CSS3, *etc.* in desktop and mobile browsers

<http://caniuse.com/>



- Steve Krug, 2013. *Don't Make Me Think: A Commonsense Guide to Web Usability*. New Riders. Excellent, short and readable introduction to usability.

