Appendix B - Testing

References to testing in the report

Any testing will either be recorded during the development process or recorded in Appendix B, such as different platforms used in the UI design, or invalid inputs entered when checking user input.

The elements could now be resized using the resize handles that are rendered when an element is hovered or selected. The element cannot be resized to larger than the grid due to the `closestValInArray` being only snapping to the extremes as a maximum, and how the `grid-position` property is handled in CSS. The handles have a invisible area around them that also responds to the `mousemove` and `mouseup` events, so that it can still be moved if the user moves their cursor outside of the handle's area (by going vertically or moving too fast). The testing evidence of this can be found in Appendix B.

The asynchronous function `saveContent` will be called whenever the save button is pressed in the editor, and whenever the autosave process is triggered. It uses the jQuery function `ajax` to send a `POST` method request to the server, on the URL `/<username>/<sitename>/save/<pagename>`, with the content `siteroot().outerHTML` - i.e. the content of the editor. The paramaters `error` and `success` define the functions to be called when the request is finished, based on the outcome. As of now, they simply write to the console. Testing of this using DevTools's Network Conditions functionality can be found in Appendix B.

In Appendix B, I used DevTools' Network Conditions throttling settings to test how it worked on lower connections, including when the site was offline.

Signup Form Validation

Client-Side

The signup form has validation using the same function both client-side and server-side. This is the testing data used for the client-side validation.

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
Name	`Aaaaa`	Check it says valid	Valid	Valid	Pass

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
Name	`Aaa Bbb`	Check it allows spaces	Valid	Valid	Pass
Name	`Aaa%bbb`	Check that it doesn't allow special chars	Invalid	Valid	Fail
Name	null	Check that it requires name	Invalid	Invalid	Pass
Email	`a@b.cc`	Check it says valid	Valid	Valid	Pass
Email	`ab12@f42.x7`	Check it says valid	Valid	Valid	Pass
Email	`@b.cc`	Check it recognises the area before `@`	Invalid	Invalid	Pass
Email	`a@.cc`	Check it recognises the area after `@`	Invalid	Invalid	Pass
Email	`a@b.c`	Check it requires a top level domain longer than 1	Invalid	Invalid	Pass
Email	`a@b.cdef`	Check it requires a top level domain shorter than 4	Invalid	Invalid	Pass
Email	`a b@ccc.uk`	Check it doesn't allow	Invalid	Invalid	Pass

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
		spaces			
Email	null	Check that it requires email	Invalid	Invalid	Pass
Username	`Aaa`	Check it says valid	Valid	Valid	Pass
Username	`Aaa bbb`	Check it doesn't allow spaces	Invalid	Invalid	Pass
Username	`A-._+c`	Check it allows special characters not given in the list	Valid	Valid	Pass
Username	`%&{}\\ <>*?/$!'\":@+`	Check it doesn't allow these special characters	Invalid	Valid	Fail
Username	null	Check it requires username	Invalid	Invalid	Pass
Password	`aaa`	Check it has a minimum length of 8	Invalid	Invalid	Pass
Password	`Aaaaaa_1`	Data to work off for next tests	Valid	Valid	Pass
Password	`aaaaaa_1`	Check it requires an uppercase character	Invalid	Invalid	Pass
Password	`AAAAAA_1`	Check it requires a	Invalid	Invalid	Pass

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
		lowercase character			
Password	`Aaaaaa_a`	Check it requires a number	Invalid	Invalid	Pass
Password	`Aaaaaaa1`	Check it requires a special character	Invalid	Invalid	Pass
Password	null	Check it requires password	Invalid	Invalid	Pass
Passwords	`Aaaaaa_1` in both fields	Check both fields have to match	Valid	Valid	Pass
Passwords	`Aaaaaa_1` in one field, `ABCDEF` in the second	Check both fields have to match	Invalid	Invalid	Pass

As you can see from the table, two of the validation checks failed. These are listed here:

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
Name	`Aaa%bbb`	Check that it doesn't allow special chars	Invalid	Valid	Fail
Username	`%&{}\\ <>*?/$!'\":@+`	Check it doesn't allow these special characters	Invalid	Valid	Fail

These were both to do with verifying special characters, and, when I revisited the code, I saw that the error was when I tried to iterate through the characters in a string like you do can do in python. Hence, I modified the line `for (var char in specialChar)` to function properly, and both tests came out as invalid.

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
Name	`Aaa%bbb`	Check that it doesn't allow special chars	Invalid	Invalid	Pass
Username	`%&{}\\ <>*?/$!'\":@+`	Check it doesn't allow these special characters	Invalid	Invalid	Pass

Server-Side

The same set of data was used to check the server-side validation, to ensure that they both returned the same results.

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
Name	`Aaaaa`	Check it says valid	Valid	Valid	Pass
Name	`Aaa Bbb`	Check it allows spaces	Valid	Valid	Pass
Name	`Aaa%bbb`	Check that it doesn't allow special chars	Invalid	Invalid	Pass
Name	None	Check that it requires name	Invalid	Invalid	Pass
Email	`a@b.cc`	Check it says valid	Valid	Valid	Pass
Email	`ab12@f42.x7`	Check it says valid	Valid	Valid	Pass
Email	`@b.cc`	Check it recognises the area before `@`	Invalid	Invalid	Pass
Email	`a@.cc`	Check it recognises	Invalid	Invalid	Pass

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
		the area after `@`			
Email	`a@b.c`	Check it requires a top level domain longer than 1	Invalid	Invalid	Pass
Email	`a@b.cdef`	Check it requires a top level domain shorter than 4	Invalid	Invalid	Pass
Email	`a b@ccc.uk`	Check it doesn't allow spaces	Invalid	Invalid	Pass
Email	None	Check that it requires email	Invalid	Invalid	Pass
Username	`Aaa`	Check it says valid	Valid	Valid	Pass
Username	`Aaa bbb`	Check it doesn't allow spaces	Invalid	Invalid	Pass
Username	`A-._+c`	Check it allows special characters not given in the list	Valid	Valid	Pass
Username	`%&{}\\ <>*?/$!'\":@+`	Check it doesn't allow these special characters	Invalid	Invalid	Pass

Field	Test Data	Reason	Expected Outcome	Actual Outcome	Pass/Fail
Username	None	Check it requires username	Invalid	Invalid	Pass
Password	`aaa`	Check it has a minimum length of 8	Invalid	Invalid	Pass
Password	`Aaaaaa_1`	Data to work off for next tests	Valid	Valid	Pass
Password	`aaaaaa_1`	Check it requires an uppercase character	Invalid	Invalid	Pass
Password	`AAAAAA_1`	Check it requires a lowercase character	Invalid	Invalid	Pass
Password	`Aaaaaa_a`	Check it requires a number	Invalid	Invalid	Pass
Password	`Aaaaaaa1`	Check it requires a special character	Invalid	Invalid	Pass
Password	None	Check it requires password	Invalid	Invalid	Pass
Passwords	`Aaaaaa_1` in both fields	Check both fields have to match	Valid	Valid	Pass
Passwords	`Aaaaaa_1` in one field, `ABCDEF` in the second	Check both fields have to match	Invalid	Invalid	Pass