

HTML & CSS Web Development

Tomos Leggett

1901852

Web Development

Internet Technology and Security

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Introduction

In this report, the author will be evaluating the creation and design of their newly developed website, "Student Apps". The report will give an overview of the website's purpose, along with screenshots and information on what the author thought went well during the development, and what could have improved.

Requirements

Purpose and Subject Matter

"Student Apps" is a website designed and developed as a repository for software that the author has found useful for students to use. It is designed so that all software on the website is free and easily accessible, and lists the advantages of the software, what the software is used for, a quick link to download the software

on your desired platform, what platforms the software is available under, links to the mobile versions of the software, screenshots and a video demonstration of the software in action.

Target Audience

The target audience of this website is aimed to target Students, Such as;

- University Students
- Secondary School Students
- Collage Students

The website is designed with emphasis on the availability of the software, including a filter in which software must either be “freemium” or “free” to be listed on the repository itself.

Relevance

The author of this report feels as if the website itself is relevant as it supports students by giving them a centralised access point for software that is both free and helpful. This will make the process of finding alternative software or free software less tedious, as students will no longer need to do research on finding the right software, such as free alternatives to more known paid software, or software that would help their study process in the first place.

Implementation

Screenshots

Index

Find software that doesn't BREAK THE BANK

What can I find here?



Free Software

With Student Software, we know the student life is cheap. We're here to provide you with software that's both partially free and completely free! So you don't need to break the bank to get the software you need!



Mobile Apps

Obviously we have software for Mac and Windows, but what about Mobile Apps for Android or iOS? Explore our Mobile Apps page to find the best and most useful software for your student life, all free of course!



Websites and Cloud

And who can forget Chromebook users? Or perhaps users who simply don't want to install software on their computer, and would rather a cloud solution? Well guess what? We have a collection of free cloud based services and websites for your academic life as well!

Top Picks

Explore our Top Picks for the best free software for students currently on the market!



Typora

Rich Text Document Composer

Free

Typora is a free to use Desktop application that allows users to compose fully featured markdown documents easily. With a live editor and lots of themes and options, you'll be able to create documents with a breeze!

[View](#)

Available on



CMapTools

Concept Mapping Software

Free

CMapTools is an absolutely free concept mapping software developed with java, so you can run it on all major desktop platforms. CMaps allows you to create concept maps on an unlimited canvas, and even has free cloud integration!

[View](#)

Available on



Notion

Advanced Notepad Software

Freemium

Notion, although not completely free, is an advanced personal wiki based notepad software available for a set price for individuals, but completely free for students with an @jac.uk or @edu email address. Notion allows you to create your own personal Wiki or database, making note taking extremely efficient!

[View](#)

Available on



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About

About

Student Apps is a website developed as a project for an assignment for the web development module in UWTSO. It was composed to demonstrate the author's basic knowledge of web development.



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Attributions

Attributions

Home Page and Website

- Icons from [Icons8.com](#)
- Social Media Icons from [Icons8.com](#)
- Logo by Tomos Leggett
- FavIcon by Tomos Leggett
- Header Image from [Unsplash.com](#)

App Icons

All software icons are provided by their websites in some way. All screenshots are provided by me.



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Contact Us

You can contact the site's creator via email at: TomosLeggett@outlook.com



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Categories > Document Composers

Document Composers



Typora

Free

Typora is a free to use Desktop application that allows users to compose fully featured markdown documents easily. With a live editor and lots of themes and options, you'll be able to create documents with a breeze!

[View](#)

Available on
  



Google Docs

Free

Google Docs is an online and offline (mainly online) document composer on the cloud. It requires an internet connection (unless you use the offline function) and runs on your browser with javascript, which means no additional plug-ins need to be installed. Everything is cloud based, so you require a Google Account and an internet connection to save and open files!

[View](#)

Available on
  



Open Office

Free

Tired of Microsoft Office? Want a simple yet effective document composer that just works out of the box and is completely free? Try Open Office, the Open Source document composer brought to you by apache.

[View](#)

Available on
  



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Categories > Note Taking

Note Taking



Notion

Freemium

Notion, although not completely free, is an advanced personal wiki based notepad software available for a set price for individuals, but completely free for students with an @ac.uk or @edu email address. Notion allows you to create your own personal Wiki or database, making note taking extremely efficient!

[View](#)

Available on



OneNote

Freemium

OneNote is a heavily student oriented piece of software, powered by Microsoft's OneDrive, that allows students, teachers, employers or anyone to store notes in any fashion. From handwriting notes to check boxes, OneNote is an extremely versatile piece of software. OneNote stores all notebook info onto Microsoft's OneDrive cloud storage, which means you'll need a Microsoft account. You can upgrade to a terabyte of cloud storage with an Office 365 subscription, and it's usually free for students.

[View](#)

Available on



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Categories > Document Composers > Typora



Typora

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Available on



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Install

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[Mac OS](#)

[Linux](#)

Mobile
Unavailable

External Sources
[Official Website](#)

Screenshots



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Categories > Document Composers > Google Docs



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Google Docs

Rich Text Document Composer

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Available on



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Choose your platform below:

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Mobile

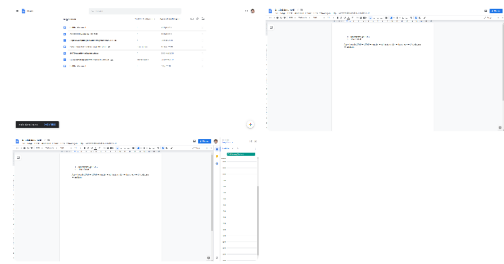
[iOS](#)

[Android](#)

External Sources

[Official Website](#)

Screenshots



Demonstration



Credits: [Google on YouTube](#)



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Categories > Document Composers > OpenOffice



Open Office

Rich Text Document Composer

Free - Open Source

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Available on



Filed Under

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Install

Choose your platform below:

Desktop

Windows

Mac

Linux

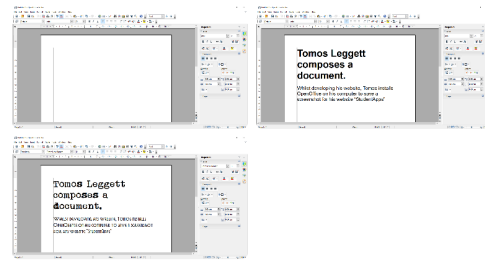
Mobile

Not Available

External Sources

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Screenshots



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Categories > Note Taking > Notion



Notion

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Available on



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Install

Choose your platform below:

Desktop

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Mac OS

Mobile

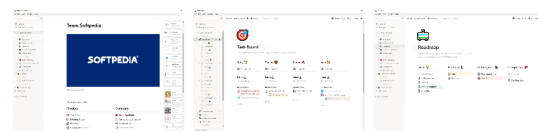
iOS

Android

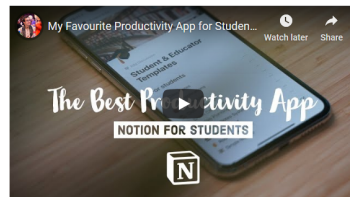
External Sources

[Official Website](#)

Screenshots



Demonstration



Credits: [Ali Abdaal on YouTube](#)



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Available on

Filed Under

Note Taking

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Choose your platform below:

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Windows

Mac OS

Mobile

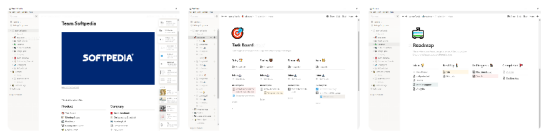
iOS

Android

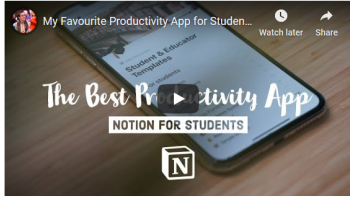
External Sources

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Demonstration



Credits: Ali Abdaal on YouTube







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Validation

HTML

The author decided to run their index page through a HTML validator as the brief described and recieved the following errors:

Error

Bad value `assets/images/Software Icons/typora.png` **for attribute** `src` **on element** `img`:

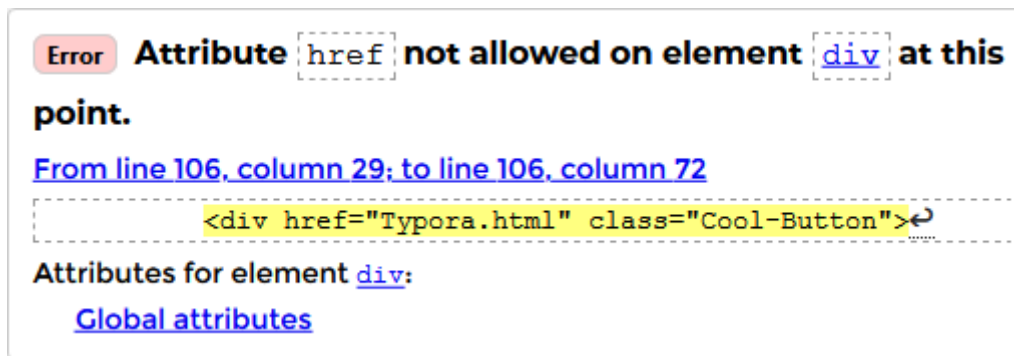
Illegal character in path segment: space is not allowed.

From line 98, column 25: to line 98, column 99

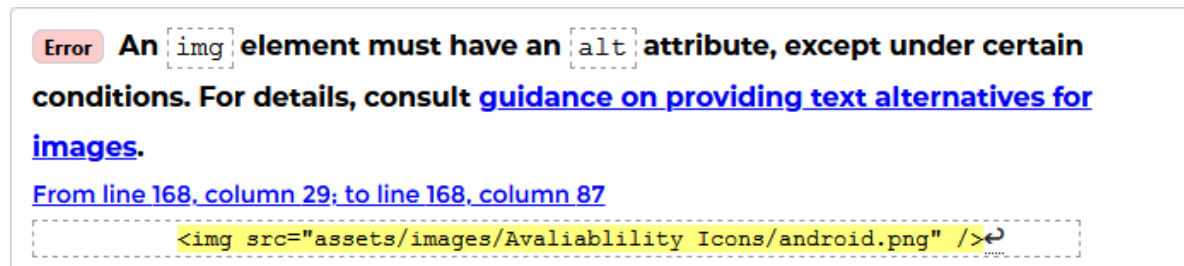
```


        
```

To correct this issue, the author removed the spacing between “Software” and “Icons” on the “Software Icons” directory and also the “category” and “icons” on the “category icons” directory.



The author removed the unnecessary “href=“Typora.html”” line from the divider’s tag to correct this issue.



The author added an alt description to the image to resolve this issue. And to all other images that had a missing “Alt” tag.



The author closed the divider with an additional “/div” tag underneath the divider’s code.

CSS

There were no errors found for the author’s CSS code.

Evaluation

Usefulness (usability and utility)

When evaluating a website, it is important to focus on the key aspects of what makes a website good. One of those key aspects, is “usefulness”. This aspect evaluates the website’s ability to perform the task it was designed for. According to Patrick Sexton, one of the guidelines for Google Webmaster is:

“Create a useful, information-rich site, write pages that clearly and accurately describe your content” [1]

In order for your website to be information rich, it needs to be original. This means that all data on the website must be enriched with original information. This includes information that isn’t available on other websites, such as more in-depth information on the availability of a product. [2] The author feels as if the information given in the description of the software on the front page’s showcase

and in the software description pages is adequate, with basic information on what the user can expect from that software, the price, the platforms the software is available on, screenshots, video demonstrations and a link to the official page. However, the author could have produced a clearer way to convey the platform availability information, as currently, the website simply displays a row of icons the software is available in, like so:

Available on



The issue with this, is that the icons themselves aren't clearly labelled, which means that unless the student themselves knew the logos and their meanings, this can appear as rather confusing. The author also feels as if they could have added greater detail to the description of the software, such as what makes it useful for students, what makes it better than other alternative software, etc. The information currently available on the Student Apps website is simply a short summary on what the software does, and how useful it is for students. It could have been a lot more in-depth and original, and could even contain a review system by the author, such as their opinions and thoughts on that particular software.

The design of a website is also important, as a well designed website allows the user to navigate through the website's pages easily, thus ensuring the content is delivered properly. According to Axia Public Relations, "Your website should clearly define what your product does through videos or text and what your company promises or guarantees" [3]. The author feels as if their website meets these guidelines. Buttons are designed in a hierarchy, which means the design of a button determines the importance of the action, [4] such as the primary actions containing large colourful widely padded boxes to help visualise the placement of the most important buttons. Most notably in my "View" buttons:



Whilst the "View" buttons, which were important, had large padded boxes around them, less important secondary buttons, such as the link that sends the user to the app's developer homepage, looked like this:

External Sources

[Official Website](#)

With that being said, the author believes that the website they've developed is widely accessible, with clearly labelled hyperlinks appearing on the header of the website on all pages, and a large title on each page indicating the type of content on the page. However, if the author was to suggest ways they could have improved their website in the future, they would have suggested the use of a better way to sort their pages, rather than just by "category", they could have sorted by "device type" or "platform".

Search Engine Optimisation

Search Engine Optimisation is a measure of how well your website will perform under search engines, such as Google, and where your website will be categorized based on search results. You'll need to make certain edits to your website to ensure that it appears as close to the top as possible on search engines. According to moz.com, the most important steps for search engine optimisation are: [5]

- **How accessible your website is to web crawlers**

The author feels as if all pages on their website should be accessible to crawlers, according to oncrawl, the website itself contains the following important traits that lead to an accessible web crawl:

- All pages are in some way linked between each other.
 - All pages can reach the main index page in some way.
 - All pages can be examined, no information is contained in images or encrypted.
 - There are links to other pages on the internet, such as download pages.
- [6]

- **How related the information is on your website to the original search term**

The author feels as if the keywords and the information on the description of the software is adequate to give results for searches based on the software that the searcher is looking for, however, due to a lack of "related software" or "alternatives to" section, the author believes the website could have had better search engine optimisation when searchers are researching for alternatives or similar software to the software they currently use.

- **Keyword optimisation attached to the index page**

The author feels as if the keywords attached to the index page are well optimised for search engine optimisation.

- **Good UX and UI design, including a fast loading time**

The website itself loads within less than 1 second, about 0.5 seconds. According to hobo-web, Google prefers a website loading speed to be at least 2 seconds, and aim for 0.5 seconds. The author also feels as if the user interface and experience design is also adequate. [7]

- **Good amount of links from other websites directing to your website, such as citations**

As the author isn't currently hosting their website, this factor cannot be evaluated.

1. **Good Title, URL and Description to increase the CTR rankings**

The author feels as if their website has a good title and URL system to increase their CTR rankings, as the title is relevant to the page, and contains the words "student apps".

Accessibility

WCAG 2.1 Guidelines

The four main principles, according to the British Government, for web accessibility comprised of WCAG 2.1 guidelines are:

- Principle 1: Perceivable

- The author has provided text alternatives by adding “alt” tags with a description for all images on their website
- The author is using a YouTube iFrame for their videos, which already comes with an automatic transcript generator
- The author’s website does not use colour to distinguish between items
- The author’s website’s text colours clearly distinguish from the background colour
- All content is accessible when the website is scaled to 200%
- All content is accessible when the website is scaled to 400%
- All text is rendered properly, no text is embedded within images (with exceptions to software screenshots of course)
- Custom fonts do not make the website less accessible
- Custom orientations do not make the website less accessible
- Principle 2: Operable
 - The website can be accessed with a keyboard only
 - The website does not have any moving content other than videos which can be paused easily
 - There is no blinking or flashing content
 - There is no need of a “skip to content” link on the author’s website
 - The website uses descriptive titles for pages and frames
 - Users can move through content on the author’s website in a way that makes sense
 - Descriptive text ensures that users are aware of where links direct them
 - Active focus is managed by the browser, the author could have improved upon this issue
 - There are no mouse events on the author’s web pages
 - There are no shortcut keys on the author’s website
- Principle 3: Understandable
 - Plain English is used throughout the website
 - Sentences are relatively short on the author’s website
 - No words or phrases that people won’t recognise are used
 - No abbreviations are used
 - Only one language is used to develop this website
 - Features are consistent throughout the website, i.e. all buttons look the same
 - There are no fields throughout the website
 - There are no forms to fill to implement the need to add a system in which people can identify and correct errors in forms
- Principle 4: Robust
 - The website has been validated by a HTML validator
 - The author feels as if assistive technology should be able to understand all components and their purpose
 - There are no modals on the author’s website

aXe - The accessibility Engine

The author ran the aXe engine on their website and found:

 Elements must have sufficient color contrast	12
Links must have discernible text	5
Heading levels should only increase by one	1
Ensures landmarks are unique	1

The first 12 errors were contrast violations, which the author fixed through editing their CSS code.

The second error was in regard to the social media icons having no text for accessibility readers to read.



The author fixed this issue by adding text in between the tags. This enabled screen readers to read the links. To hide the text, the author simply added a font-size:0px to the social media menu on their CSS file:

```

1  #social-media-menu > a{
2      background-image: url(../images/social-icons.png);
3      width: 50px;
4      height: 50px;
5      display: inline-block;
6      border-radius: 5px;
7      background-size: 350px 100px;
8      margin: 5px;
9      font-size: 0px;
10 }
```

and then simply added the text to the attributes instead:

```

1  <a href="https://www.facebook.com/StudentApps" target="_blank"
   id="Facebook">Facebook</a>
2  <a href="https://www.twitter.com/StudentApps" target="_blank"
   id="twitter">Twitter</a>
3  <a href="https://www.youtube.com/StudentApps" target="_blank"
   id="YouTube">YouTube</a>
4  <a href="https://www.instagram.com/StudentApps" target="_blank"
   id="Insta">Instagram</a>
5  <a href="https://www.linkedin.com/StudentApps" target="_blank"
   id="LinkedIn">LinkedIn</a>
```

References

- [1,2] P. Sexton, "Creating useful and information rich websites", Varvy.com, 2020. [Online]. Available: <https://varvy.com/usefulinformationrich.html>. [Accessed: 08-Jan- 2020]
- [3] H. Feran, "What makes a website useful and accessible?", Axiapr.com, 2020.

[Online]. Available: <https://www.axiapr.com/blog/what-makes-a-website-useful-and-accessible>. [Accessed: 08- Jan- 2020]

[4] "UI cheat sheets: buttons", *Medium*, 2020. [Online]. Available: <https://uxdesign.cc/ui-cheat-sheets-buttons-7329ed9d6112>. [Accessed: 08- Jan- 2020]

[5] "Beginner's Guide to SEO [Search Engine Optimization]", *Moz*, 2020. [Online]. Available: <https://moz.com/beginners-guide-to-seo>. [Accessed: 08- Jan- 2020]

[6] "How to make a crawlable site - OnCrawl", *OnCrawl*, 2020. [Online]. Available: <https://www.oncrawl.com/technical-seo/how-to-make-a-crawlable-site/>.

[Accessed: 08- Jan- 2020]

[7] *Hobo-web.co.uk*, 2020. [Online]. Available: <https://www.hobo-web.co.uk/your-website-design-should-load-in-4-seconds/>. [Accessed: 08- Jan- 2020]