

## ACIT 1620 – Week 2 Assignment

### **Introduction**

You have been hired as a junior web developer at a digital agency. You are tasked with supporting four different clients who each face unique website challenges:

-  BookNook – a small online bookstore
-  BeanBuzz Café – a local coffee shop expanding online
-  Tech4Kids – an educational technology startup
-  Government Health Department – a public agency improving citizen access to health information.

### **BookNook's Website**

 BookNook wants simple navigation for customers.

Requirement	Client Request	Your Task
Navigation Menu	“I want links for Home, Books, and Contact Us.”	Identify the hyperlink type and explain why it fits.  <i>Internal links</i> are the best fit as they navigate you towards another page within the same site.
Back to Top	“On long pages, users should quickly return to the top.”	What type of hyperlink would you suggest?  <i>Anchor links</i> will be used for this as it will move the webpage to another section on the same page
Author Links	“Each book should link to the author’s personal website.”	Explain why external links are suitable here.

- *How might broken links affect the credibility of BookNook’s website?*

Reduced usability of a site due to broken links can cause search engines like Google to rank BookNook's website lower because it is not seen as a trusted resource.

- *Do internal links influence SEO rankings? Why or why not?* Internal links do not affect SEO rankings. Incoming links are the ones that enhance a site's visibility and credibility, while effective internal linking only improves navigation and makes content easier to find.

## **BeanBuzz Café Goes Digital**

 BeanBuzz Café wants a new domain.

1. The owner is considering using the IP 203.0.113.25 instead of registering a name like beanbuzz.ca.

*Write down 3 benefits of using a domain name instead of an IP:*

- Easy for humans to remember.
- Domain names offer both stability and flexibility; even if a website's IP address changes, the domain name remains consistent.
- Effective branding

2. *They are unsure whether to use .com, .org, or .ca. Fill in the table below and recommend one.*

TLD	Pros	Cons	Best Fit For
.com	Makes the website more world-wide		Almost every non-specific website
.org	Makes a website seem like a large organization	Should only be used for non-profit organizations	Non-profit organizations
.ca	Classifies the website as Canadian-owned	Buying of this domain is restricted to Canadians only	Canadian businesses

I recommend using ".com" as it targets a broader audience. However, if it is a local company, especially now with the political clash between US and Canada, I would recommend using ".ca" instead as Canadian consumers are opting to go to local businesses.

- *What risks might occur if BeanBuzz fails to renew its domain name?* BeanBuzz risks losing that specific domain name, thus resulting in loss of online identity.

- *The café wants short URLs for Instagram promotions. How do shortened links help or hurt marketing efforts?* Shorter links are helpful for memorability. However, for branding purposes, it's best to keep everything consistent.

### **Tech4Kids Startup**

■ Tech4Kids is preparing to launch its platform and is considering multiple domains (.edu, .org, .io). The founders want to appear credible for both schools and investors.

Tasks:

- *Compare the three options and recommend the best domain strategy.*
  - “.org” is used for non-profits. As there is no information on the company’s funding, they should not use it.
  - “.edu” is used for accredited schools and has eligibility requirements that the company probably doesn’t meet as of today.
  - “.io” is used for tech start-ups, so this is the best option.
- *Discuss how confusing domain choices could harm their branding.*
  - Credibility: using an unfit domain can make a brand appear unprofessional.
  - Navigation difficulty: a confusing domain can lead users to mistype or visit the wrong site, causing lost traffic; this loses possible customers.
  - Search engine rankings: SEO visibility and ranking will not be good.
  - Brand inconsistency – a domain that differs from a brand weakens recognition.

*Write the names of each of the appropriate organization with the TLD.*

<b>TLD</b>	<b>Best Fit Organization</b>
.gov	Reserved for government organizations e.g. Government Health Department
.edu	Restricted to accredited educational institutions e.g. Harvard website
.shop	For retail and e-commerce businesses

	e.g. BookNook
.org	Used for non-profits e.g. Wikipedia website
.io	For tech start-ups or online services e.g. Tech4Kids

## Government Health Department

 The department wants to register a .gov domain. However, fake websites are emerging with similar names using .com.

Tasks:

- *Explain the dangers of fake sites mimicking government services:* Fake websites can acquire information that could harm a user. E.g. unsecure sites can get credit card info.
- *Why should governments enforce HTTPS for all portals?* Governments should enforce secure websites to keep users safe from malicious users that may collect their data for misuse.

## Marketing with URLs

 BeanBuzz prints the following link on their bus ad:

[https://example.com/products?id=12345&ref=bus\\_ad](https://example.com/products?id=12345&ref=bus_ad)

Tasks:

- *Rewrite this URL into a clean, semantic version:* [www.example.com/bus\\_ad](http://www.example.com/bus_ad)
- *Explain why semantic URLs are important for SEO and user trust:*

- Users can easily recall and type the URL.
- Easy to navigate.
- Increased traffic = Boosted SEO

## Comparison Table:

Good URL Example	Bad URL Example
<a href="https://beanbuzz.ca/menu/coffee-latte">https://beanbuzz.ca/menu/coffee-latte</a>	<a href="https://beanbuzz.ca/product?id=6789&amp;ref=ad123">https://beanbuzz.ca/product?id=6789&amp;ref=ad123</a>

*Why might a company still use tracking parameters despite URLs looking less attractive?* Aside from bug tracking and reporting, company websites may still use less attractive links to create specific areas on the website for other content or services. This keeps consistency as the parent website is still linked.

## DNS Troubleshooting

 A new domain is set up, but customers in different regions see different results.

Tasks:

- *Explain what DNS propagation is:* this is the process of updating the DNS system after purchase or renewal of a domain (like updating the phonebook!)
- *Estimate how long the process usually takes:* a few minutes to 48 hours, depending on the DNS status world wide.
- *How does browser caching influence DNS lookups?* Caching makes looking up websites faster
- *Why might a user in Europe see the site, but a user in Canada does not?* The global updating process is not simultaneous; the most important ones are updated first.

## Case Analysis

*Analyze the following domains, and break each into TLD, SLD, and subdomains.*

- [blog.education.university.ca](http://blog.education.university.ca): blog.education (subdomain); university (SLD); .ca (TLD)
- [support.mozilla.org](http://support.mozilla.org): support (subdomain); mozilla (SLD); .org (TLD)
- [health.gov.uk](http://health.gov.uk): health (subdomain); .gov (SLD); .uk (TLD)

*Now analyze these URLs:*

- <https://www.shop.com/products/shoes?color=red&size=10#reviews>
- <https://developer.mozilla.org/en-US/search?q=URL>
- <https://www.health.gov.uk/vaccines/covid19?lang=en#schedule>

Fill in a table identifying scheme, domain, path, parameters, and anchor for each.

<b>Scheme</b>	<b>Domain</b>	<b>Path</b>	<b>Parameters</b>	<b>Anchor</b>
https	www.shop.com	/products/shoes	?color=red&size=	#reviews
https	/developer.mozilla.org	/en-US/search	?q=URL	#schedule
https	www.health.gov.uk	/vaccines/covid19	?lang=en	

### Reflection & Critical Thinking

1. Why are HTTP sites insecure today? Most websites have switched to HTTPS sites to better their chances to attract clients over their competitors. Therefore, a website which only indicates HTTP is known to have a *less* secure site as a result.
2. *Are semantic URLs always better? Give examples.* Semantic URLs aren't always better. Most people only need to remember the main website they need to access and click through where they need to get. Especially with the "bookmark" or the "Save for Later" option, there is less need to remember specific URLs. E.g. shopping on Amazon, Etsy, etc.
3. *Is HTTPS enough to prove trustworthiness? Why or why not?* Although HTTPS increases security, it does not guarantee full protection against data being stolen. There are other factors that could affect security like secure connections and independent users of trustworthy sites. E.g. Unrated businesses or marketplace sellers.
4. *What does a broken hyperlink signal about website maintenance?* It signifies that the owners of the website are not maintaining it correctly.
5. Debate: Should companies use URL shorteners for marketing? In the age of social media, I feel that there is less observation on the URL link itself as many apps allow to change the appearance of a link altogether. E.g. a link to a shop on instagram might only have the words "Shop now!" without showing the URL itself. So in my opinion, the URL doesn't matter unless the primary domain is used on business cards or big billboard ads, for example.
6. *Imagine your favorite social media site changed its domain tomorrow. How would it affect users and search engines?* Let's use the example of Twitter to X. There was a visible uproar amongst the users of the application. However, because it is still linked with the original IP address, I believe there is no change