Faculty of Computer Science, Dalhousie University	*14-Jan-2025*
DGIN 5201 — Digital Transformation	
Lecture 4: Lec 3: Web Server Configuration	

Location: LSC C236   Instructor: Vlado Keselj
Time: 13:05–14:25

Previous Lecture

– Technical foundations of digital innovation
– Evolution of the Internet
– Course Calendar Overview
– Unit description: Implementing a solution
– MVP, Rapid Prototyping, and Three-tier Architecture
– Starting points: CSID, timberlea, ssh and PuTTY
– Logging into timberlea server
– PuTTY, ssh (Secure SHell) connection
– Creating a simple web page
    – ssh, bash commands,
    – file permissions,

Notes and Announcements

– Lab 1 finished last Friday, due on Thursday by midnight
– Issues with copy-and-paste from PDF
    – tilde character (˜)
    – other issues possible, such as quotes
– Solution: do not copy-and-paste but type
– Suggestion: learn touch-typing

Aside: Touch Typing

– If you don't use touch typing, consider learning it
– A relatively simple and not popular skill, but
    – actually important, and even more and more relevant
– Also known as *blind typing*, and *touch keyboarding*
– Reference: `https://en.wikipedia.org/wiki/Touch_typing`

Touch Typing

Touch Typing (2)

Image source of the previous slide: `https://news.sophos.com/wp-content/uploads/2023/08/tt-1200.png`

Hands-on e2: Printable Page, Files Shared

Example e2: User Registration, Printable Page, Files Shared

– Consider a Conference Management System: *CoMS*
– Let us build a conference registration form
– We also want to provide them with some material
– First iteration: Create a printable form
– Create directory `public_html/dgin5201/e2`
– Go to that directory
– Add file `index.html` (content to be given)
– Make sure that the permissions of `e2` are `rwx--x--x`, and of `index.html` are `rwxr--r--`

Example 2: `public_html/dgin5201/e2/index.html`

```
<html><head><title>Conference Registration</title></head>
<body>
<h1>Conference Registration</h1>

<p>This is a registration page for CoMS.<br/>
For additional documents, please check <a
href="material">here</a>.<br/>
Please enter your information below to register:

<table>
<tr><th align=right>First and last name:</th>
<td>_____</td></tr>
<tr><th align=right>Email:</th>
<td>_____</td></tr>
<tr><th>Area of Interest (DB, HI, DS):</td>
<td>_____</td></tr>
</table>
```

Example 2: Make material available

- Create readable and accessible ('executable') directory `material` (permissions: `rwxr-xr-x`)
- Copy PDF from: `~vlado/public/dt-mini-conf.pdf` into directory `material`
- Setup permissions for the directory `material` to be all readable and accessible (`rwxr-xr-x`), and for the file `dt-mini-conf.pdf` to be all readable (`rw-r--r--`)
- Try to access material link on the page. Does it work? Why?

Example 2: Prepare `.htaccess` **in** `material` **directory**

- Prepare file `.htaccess` and make it all readable (`rw-r--r--`):
  ```
  Options Indexes
  ```
- Check material access now
- Add the following line to `.htaccess` and try accessing again:
  ```
  Options Indexes
  AddDescription "DT Conference Poster (PDF)" dt-mini-conf.pdf
  ```
- Add "and Information" to "DT Conference Poster" and access
- Add the following line and try again:
  ```
  Options Indexes
  IndexOptions DescriptionWidth=*
  AddDescription "DT Conference Poster..." dt-mini-conf.pdf
  ```
- `.htaccess` file is used to configure Apache web server behaviour
  - can be used to provide a simple password-protected access

Concepts Review: Example 2

- Creating something that looks like form when printed
- HTML tags: `head, title, h1, p, br, a, table, tr, th, td`
- HTML attribute: `<th align=right> <a href="...">`

- – `bash` shell: `cp`, using path, `˜vlado`
- – Accessing directory via browser
- – `.htaccess` file for the Apache server: `Options Indexes, AddDescription`