

DGIN 5201
Digital Transformation
Lecture 4

**Lec 3: Web Server
Configuration**

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Time and date:
13:05–14:25, 14-Jan-2025
Location: LSC C236

Image: DALL-E. Bing Image Creator. Generated by AI

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,

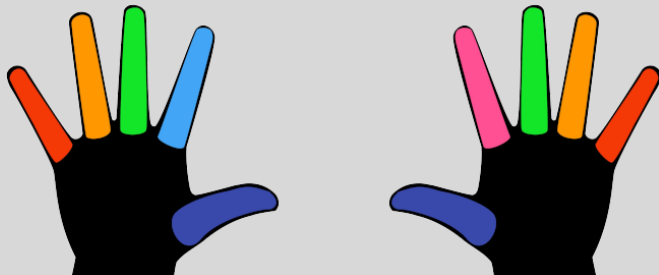
Notes and Announcements

- 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`

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):</th>
<td>_____</td></tr>
</table>
```


Example 2: Make material available

- Create readable and accessible ('executable') directory `material` (permissions: `rw-r-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 (`rw-r-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>` ``
- bash shell: cp, using path, `~vlado`
- Accessing directory via browser
- .htaccess file for the Apache server: Options, Indexes, AddDescription