



# **COMP 4021**

# **Internet Computing**

## **Apache**

Dr. Kenneth LEUNG

Slides created by Dr. David ROSSITER

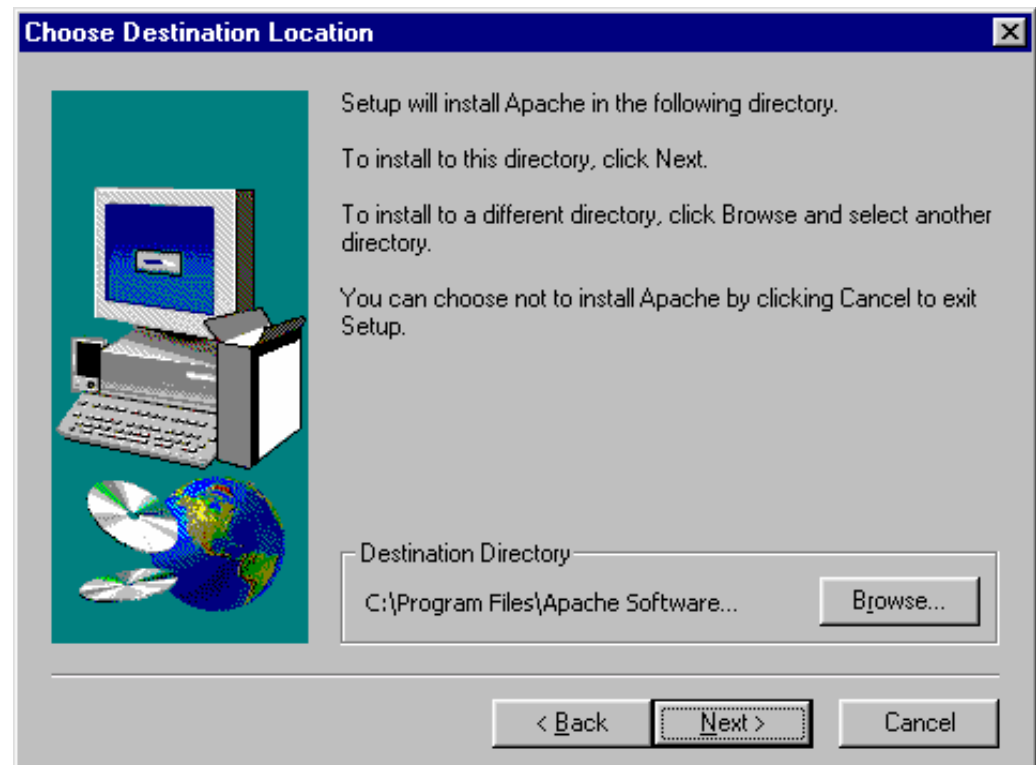
# Apache

- Apache is a web server
- It is available at <http://httpd.apache.org/>



# Installing Apache

- Apache can be downloaded from <http://httpd.apache.org/download.cgi>
- Install it, choose all default options



# Running Apache

- Starting Apache
  - Select *Start> Programs> Apache HTTP Server> Control Apache Server> Start*
  - Apache is now running in a console window which can be minimised
- Stopping Apache
  - To properly stop Apache select *Start> Programs> Apache HTTP Server> Control Apache Server> Stop*
  - If you kill the Apache server by clicking on the top-right hand corner there will be an error message next time you start it

# Accessing Web Files

- To check you have installed Apache, you can open `http://localhost` in a browser
- 'localhost' means the machine in front of you
- You should see the default page (shown right) in the browser

## It Worked! The Apache Web Server is Installed on this Web Site!

If you can see this page, then the people who own this domain have just installed the [Apache Web server](#) software successfully. They now have to add content to this directory and replace this placeholder page, or else point the server at their real content.

If you are seeing this page instead of the site you expected, please **contact the administrator of the site involved**. (Try sending mail to `<Webmaster@domain>`.) Although this site is running the Apache software it almost certainly has no other connection to the Apache Group, so please do not send mail about this site or its contents to the Apache authors. If you do, your message will be **ignored**.

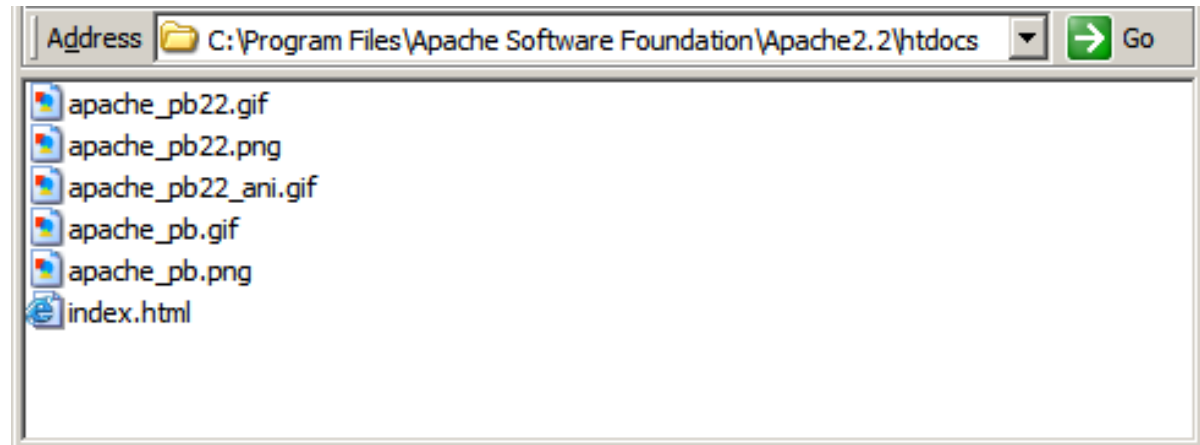
The Apache [documentation](#) has been included with this distribution.

The Webmaster of this site is free to use the image below on an Apache-powered Web server. Thanks for using Apache!



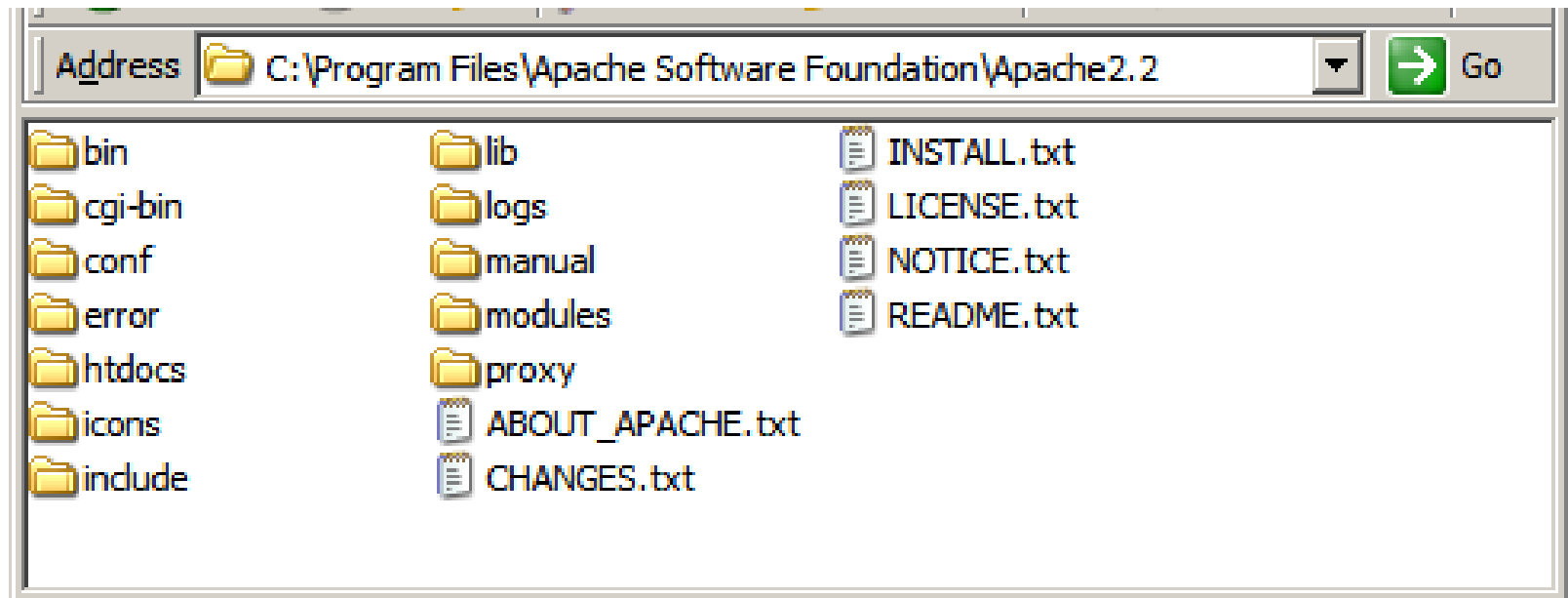
# Storing Web Files

- Web files are stored under the *htdocs* directory
- The default *index.html* file is just a simple file provided by Apache



- You can replace all the default files in *htdocs* with any web files you want to distribute

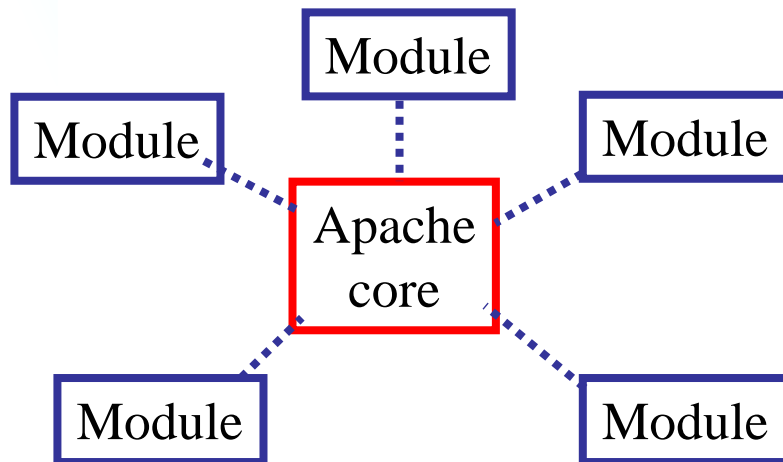
# The Apache Directory Structure



- You can use Windows Explorer to see the Apache directory structure

# Apache Modules

- Modules add various functions to the Apache server

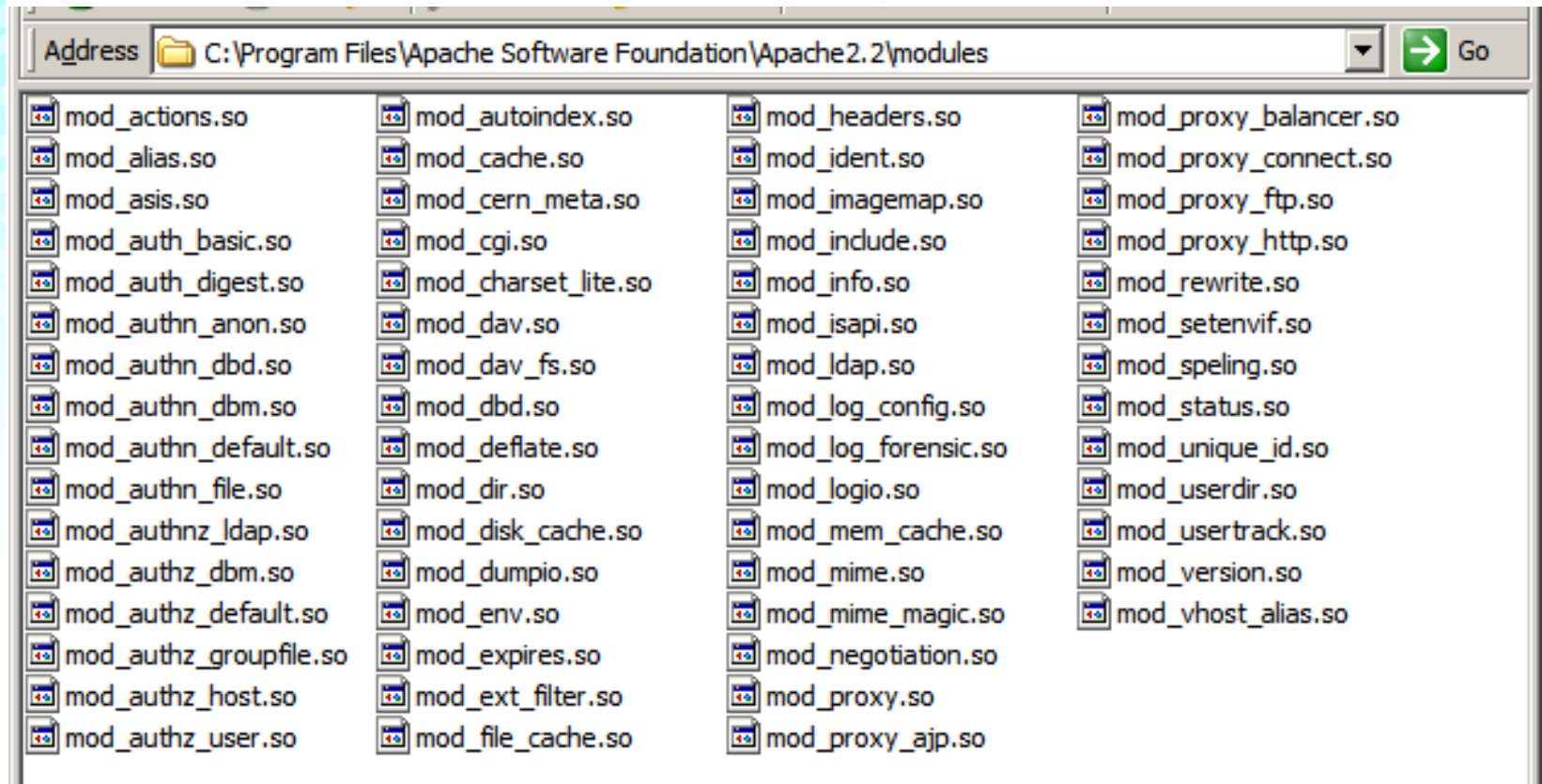


## Most popular modules right now:

<a href="#">mod_pony</a>	No release yet	Apache License 2.0	2013-01-31 14:58:35	★Popular!
Displays a friendly pony. Or not. Depending.				
<a href="#">mod_proxy_msrpc</a>	For: 2.4	Apache License 2.0	2014-05-31 20:45:56	★Popular!
Apache module for Outlook Anywhere passthrough support in reverse proxy setups				
<a href="#">IP2Location</a>	No release yet	Apache License 2.0	2014-04-24 06:53:09	★Popular!
This is an IP2Location Apache Module that enables the user to identify the country, region, city, latitude, longitude, zip code, time zone, ISP, domain name, connection type, area code, weather, MCC, MNC, mobile brand name, elevation and usage type b				
<a href="#">mod_pagespeed</a>	For: 2.2, 2.4	Apache License 2.0	2013-01-31 14:32:03	★Popular!
Rewrites html/css/js/images dynamically to improve latency and bandwidth				
<a href="#">mod_auth_dacs</a>	For: 2.0, 2.2, 2.4	Other License	2013-11-01 16:34:07	★Popular!
Authentication, authorization, and single sign-on				
<a href="#">mod_lua</a>	For: 2.2, 2.4, 2.5	Apache License 2.0	2013-01-29 22:59:19	★Popular!
Preprocessed Lua for the Apache HTTP Server				
<a href="#">mod_mruby</a>	For: 2.0, 2.2, 2.4, 2.5	MIT license	2014-05-15 12:34:25	★Popular!
A Fast and Memory-Efficient Web Server Extension Mechanism Using Scripting Language mruby for Apache httpd				
<a href="#">mod_amf</a>	For: 2.0, 2.2, 2.4	Apache License 2.0	2014-02-08 23:53:35	★Popular!
Apache Mobile Filter is the easiest and fastest way to detect mobile devices.				
<a href="#">mod_vhost-ldap-ng</a>	For: 2.2, 2.4	Apache License 2.0	2013-04-29 10:54:06	★Popular!
LDAP based virtualhosting module				
<a href="#">mod_limits</a>	No release yet	GNU General Public License (GPL)	2014-03-27 17:11:56	★Popular!



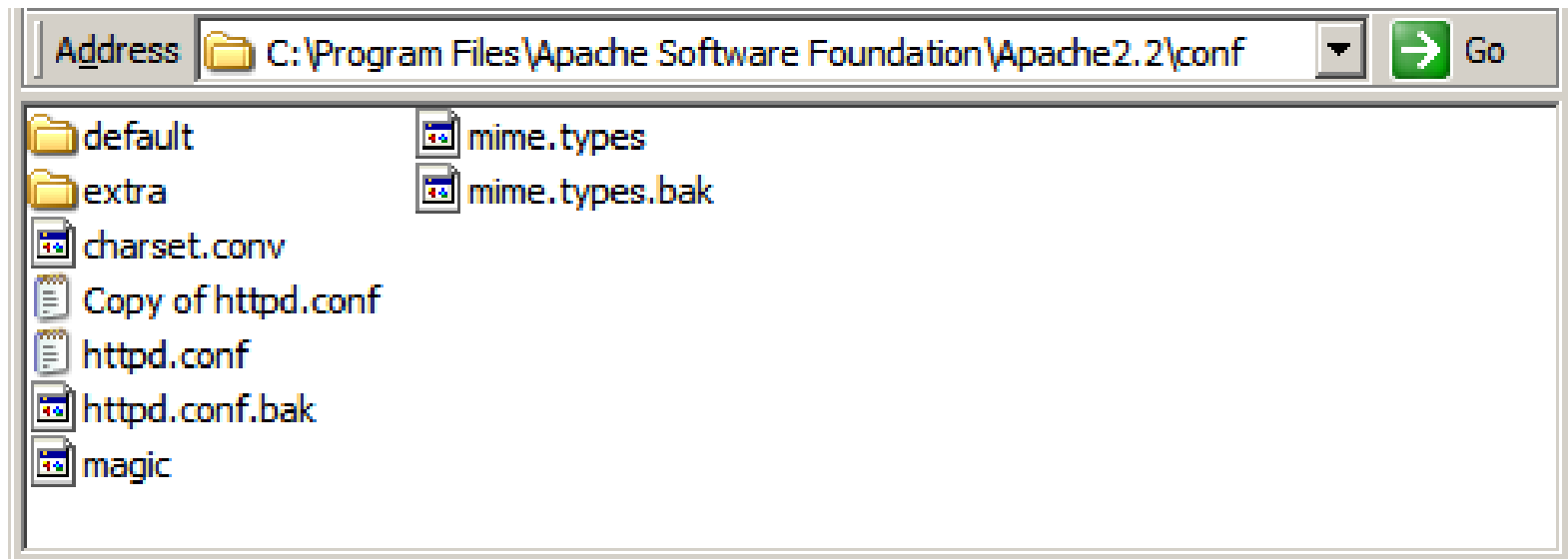
# Apache Modules



- The *modules* directory showing lots of modules

# Apache Configuration Files

- You make changes to the way Apache works by editing the configuration files (=text files), which are stored in the *conf* directory



# Apache Configuration Files

- Configuration files are full of lines that look like this:  
`<directive> parameter1 parameter2 ...etc...`
- For example:  
`ServerType standalone`
- You may need to change some things when you install Apache, and when you add components such as PHP

# Changing the Configuration Files

- When you write a path use / and not \
- It's safer to put any path in speech marks, to make sure there's no problem with spaces
- For example:

```
ServerRoot "C:\Program Files\Apache Software Foundation\Apache2.2"
```

- If you don't want something, use # at the start of the line to comment it out
- For example:       #This line of code won't do anything