UNIVERSITY OF TECHNOLOGY SYDNEY
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31268 Web Systems

Week 4: The Web and HCI
Part 1: The Web

31268 – Web Systems   1

The web…
A bunch of computers and a network of networks…

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- Is It …

BROWSER

Web Server Program

Operating System

HARDWARE

… and a whacking
big computer
running the
web site program on
an operating system
running on
HARDWARE

index.html

2   www.uts.edu.au

Web Server

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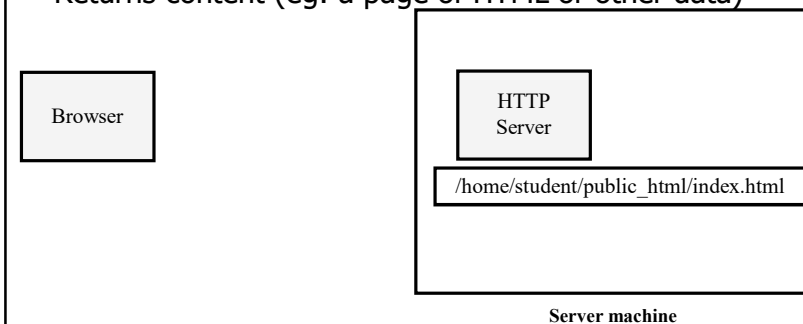
- Quick Quiz: What is a Web server??

A. A computer
B. A program
C. A network device
D. A content delivery service
E. A client device

- http://menti.com **35 17 06**
  (02 web server survey)

Web servers

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- Just a **program** that accepts requests from a browser over a network connection
- Returns content (eg: a page of HTML or other data)

Browser

HTTP Server

/home/student/public_html/index.html

Server machine

Web servers

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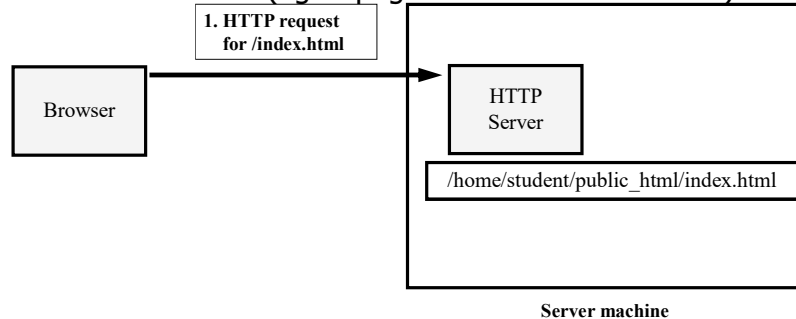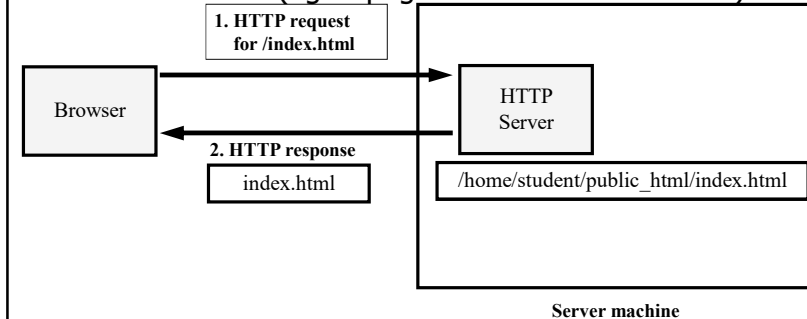Faculty of Information Technology

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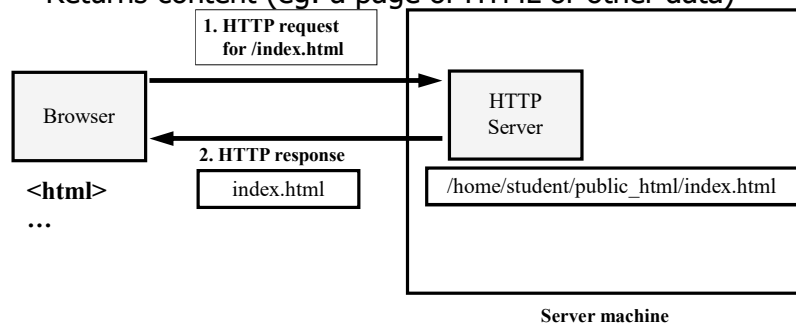Faculty of Information Technology

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Web servers

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Web Content management

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- Web server usually just displays web pages
  - from files on the filesystem eg: index.html

Web Content management

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- Web server usually just displays web pages
  – from files on the filesystem eg: index.html

- But… can also be dynamically generated
  – Programs generate HTML or pictures etc
  – Eg PHP, ASP.NET

- Sometimes large web sites manage content automatically via "Content Management Systems"
  eg: Joomla, Drupal, Wordpress etc

Web page development

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Web Pages contain:
- Text +
- Markup
  - HTML ➔ Hyper-text Markup Language
  - CSS → Cascading Style Sheets (presentation format)
  - HTML Structures text into headings, lists, paragraphs, tables,...

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Web browser presents the text in a way which is aligned with the structure
- XHTML – a strict version of HTML which prevents mis-interpretation of text by the browser

Web Pages

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  - **Text**
  - **Markup** (aka "Tags")

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- Web pages are HYPERTEXT – we HYPERLINK ("link") to OTHER pages via various mechanisms
- There are several "dialects" of HTML – the most popular is HTML 4.0 Transitional from w3c.org
- Others include HTML 3.2, HTML Strict, XHTML, HTML5 & so on

Demo

- UTS website
  - *Show F12, source html, network, device mode, m.uts.edu.au*

The World Wide Web

An HTML viewer is needed to see the HTML document.

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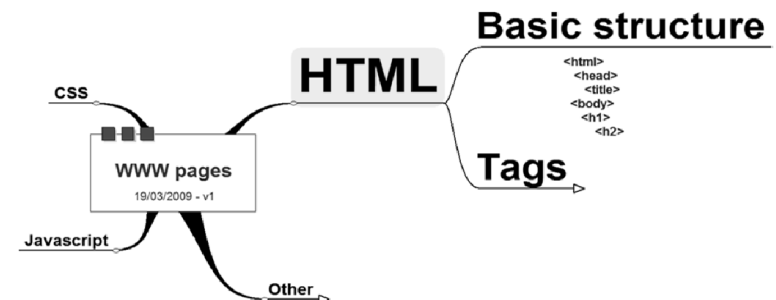*webkit*   *trident*   *gecko*

Popular browsers

• http://www.w3schools.com/browsers/browsers_stats.asp

2017	Chrome	IE/edge	Firefox	Safari	Opera
February	74.1%	4.8 %	15%	3.6 %	1%

• Usage share of all browsers for December 2016 (wikipedia)

Source	Chrome + Android	IE + Edge	Firefox	Safari	Opera	Others
StatCounter	54%	6%	4.4%	14%	5.1%	5.7%

HTML

CSS

HTML

Basic structure

<html>
<head>
<title>
<body>
<h1>
<h2>

WWW pages
19/03/2009 - v1

Tags

Javascript

Other

HTML, CSS

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- See: W3schools, Linuxgym chapter 4
- Especially: www.w3schools.com/howto

- Ryans Tutorials: especially HTML, CSS, Design
  - http://ryanstutorials.net/

Design

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- See http://www.webpagesthatsuck.com/
  - www.uat.edu
- havenworks example
- Assignment examples

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- Ryans Tutorials: Design
  - http://ryanstutorials.net/

- University of Washington, Web Design & Development
  - http://www.washington.edu/accesscomputing/webd2
  - Student Version > Unit 1 to 4

The Assignment

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- Specification

- *Examples*

- *Peer marking*

The Assignment

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- Specification

- *Examples*

- *Peer marking*

- HINTS:
  - Check at 1024x768 resolution
  - Try use 2 different browsers with different Web engines
    - Firefox
    - Chrome/Safari