

COS10011/60004 Creating Web Applications

Unit Overview



Corequisites



■ Corequisites

- ☐ We assume you have done or are currently doing a basic programming level unit, or have equivalent experience.

This Lecture ...



- Unit overview
- Introduction to the Web



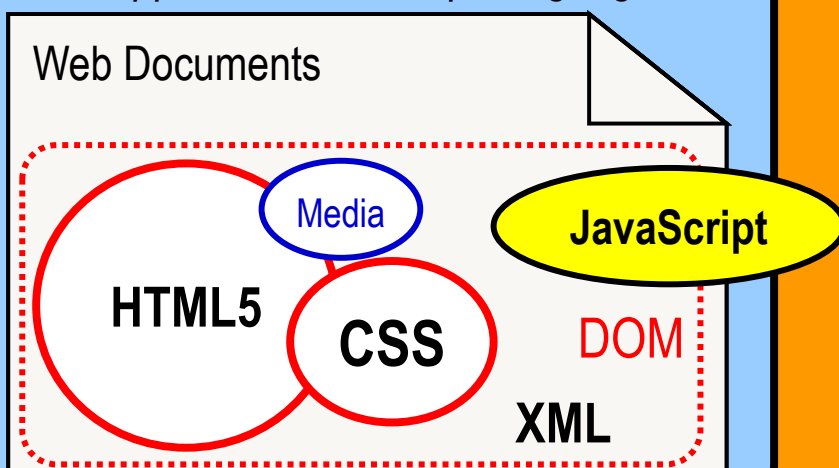
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Unit of Study Outline

Internet Technologies: TCP/IP, URLs, URIs, DNS, MIME, SSL

Web Technologies: HTTP, HTTPS, Web Architectural Principles

Client Side Technologies:
Web Applications, Markup Languages



Server Side Technologies:
PHP, SSI, ...
Server-Side Data:
MySQL

*Standards
Quality Assurance
Accessibility
Usability
Security*

Concepts we will cover

- Internet protocol stack
- TCP/IP, DNS
- HTTP, URL/URIs
- HTML, DOM
- Client-Server architectures
- Programming Clients and Servers

Web Languages you will learn

- | | | |
|---|---|-------------------------|
| <input type="checkbox"/> HTML5 (XML) | } | Mark Up languages |
| <input type="checkbox"/> CSS rules | | |
| <input type="checkbox"/> JavaScript (DOM) | } | Programming languages |
| <input type="checkbox"/> PHP | | |
| <input type="checkbox"/> MySQL | } | Database query language |
| <input type="checkbox"/> ... | | |

Using tools

■ Tools we will use

- ☐ Validators
- ☐ Editors (Notepad ++)
- ☐ Browser plugins – e.g. DOM inspectors, validators

■ Tools we *won't* use

- ☐ Web development frameworks e.g., Dreamweaver
- ☐ Mobile app development frameworks
- ☐ Content management systems
- ☐ Server-side Web application frameworks e.g. ASP.NET, JSP, Ruby on Rails...
- ☐ JavaScript Frameworks / Libraries e.g. jQuery, AngularJS, MooTools, ...

Tutorials

- You will be given lab exercises to complete in tutorials.
- 10 labs in total (worth 10% of the final assessment)
- Lab exercises to be marked off before the next lab. *Work will not be assessed after that.*
- It is a good idea to do the lab exercises *prior* to your tutorial.

For example, for lab 2, it is suggested that you do the lab 2 exercises prior to your Week 2 tutorial. During the Week 2 tutorial you can discuss any questions with your tutor and get your work marked off. Your lab 2 can also be marked off before your lab in Week 3.

Discussions on Canvas

- Please post your questions on the Discussions board on Canvas.
- You can also answer other students' questions on Discussions board.
- Discussions board will be monitored by tutors.
- In regard to other issues, your tutors will be the first contact point.



Assignment – developing a web site

There is a single assignment with *3 assessable incremental instalments*.

- **Part 1** (20%) - demonstrate your ability to develop and deploy on a web-server, well-structured, linked HTML5 web pages with text, graphics, forms and tables, styled with CSS.
- **Part 2** (30%) - further extends the use of HTML elements and makes use of client-side JavaScript to validate forms and add dynamic behaviour to the web pages.
- **Part 3** (40%) - further extends the web pages, making use of server-side PHP to submit and retrieve data through MySQL from a server-side database.