Web Development 2

Lecturer

Cindy Liu

Office: k201

Tel: 014022868

Email: cindy.liu@dit.ie

Course

To date, have looked at mostly “static” website

- HTML
- Client side javascript/ stylesheets etc

This course focuses on enabling dynamic web applications

Module Description

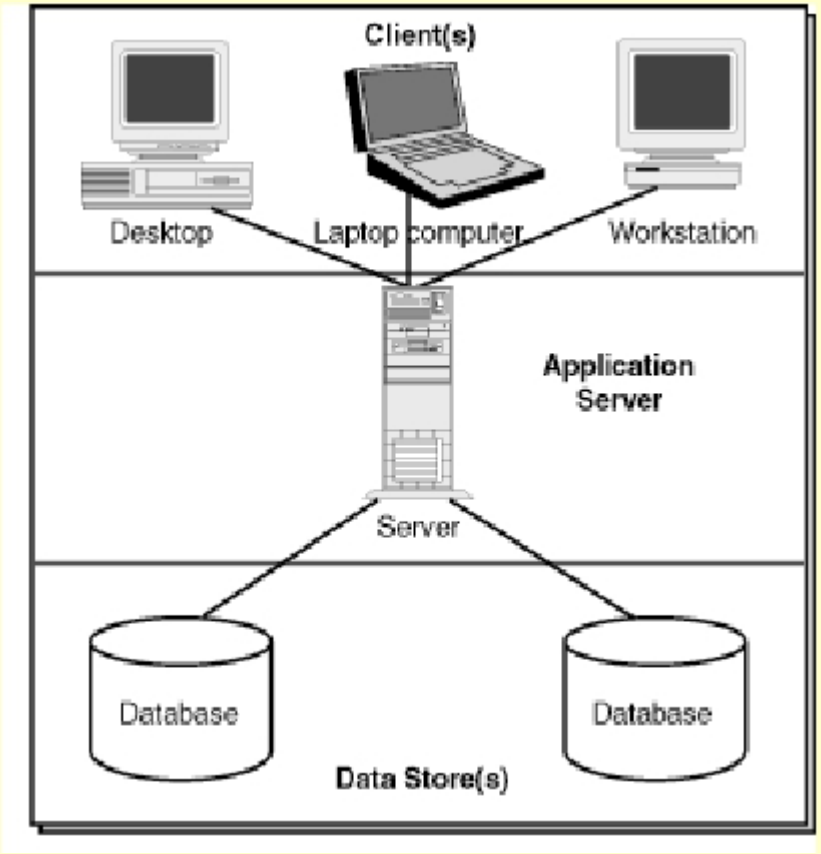
- **Modern web applications comprise at least three distinct tiers:**

1. the front tier, where content is presented using XHTML, HTML, CSS, XML, XSL-T, scripting and other technologies, all of which are treated in the pre-requisite module *Web Development I*.

2. the middle tier, where content is dynamically generated from data stored in the database at the

Module Description

3. back tier. The purpose of this module is to develop the student's skills so that they can develop all three tiers of a web application.



Module Description

- Database issues are treated in the *Databases* module, so the key requirement here is integration of the database with the middle layer.

- PHP as the core of the module being introduced to the student in order to get a flavour of the server side technology to development.

- In addition, the foundation on the Internet architecture treated in the *Web Development I*module is extended by examining the core protocols of the Internet within the TCP/IP model.

Learning outcomes

- Understand the capabilities and functionality provided by a **web server** and have practical experience of installing and configuring a web server

- Understand, recognize and have some practical experience of a variety of **server-side technologies** available for development of web applications

- Appreciate and understand the **difference** between the available server side technologies

Learning outcomes

- Be able to select and justify an appropriate **application architecture** for a web application

- Understand how to and have practical experience of accessing **databases** across the web

- Be able to design and develop a **web application** that uses a server side database

Course Outline

Internet Infrastructure and Protocols:
TCP/IP protocol stack. OSI protocol stack. Connection oriented protocols.
Connectionless protocols. Basic routing. Functions of IP. IP addressing. TCP. UDP. The Domain Name service. Name resolution.

Course Outline

Tiered Architectures : n-Tier architectures. Client, server, database. Roles of layers. Interaction between layers. Client server architectures. Management of database. Role of application servers.

Course Outline

Web servers: web servers in an internet architecture; installing and configuring a web server; servicing HTTP requests; features provided by a web server; comparing and contrasting different servers.

Server Pages: developing a server side application using markup language embedded with programming code

Course Outline

Accessing databases: connecting to a database, embedded SQL, available databases, database features necessary in a web application

Server side technologies: overview of available server side technologies, CGI, Perl, PHP, Cold Fusion, ASP, JSP, Java servlets; contrasting comparing capabilities and functionality available for server side development; recent advances in server side technologies

Schedule

Lectures

Thursdays 12-14 in K308

Labs

Fridays 13-15 Rooms A115 /A117 / A306/

Attendance ..

Course Assessment

Written examination – 50%

Continuous assessment – 50%

assignments

1 web site development (70%)
Lab works (30%)

Course Materials

Lectures Notes on

Webcourses

Module Name: Web Development II

ID: SENG2220

Access Code: Web 2

Course Materials

Books:

"Internet and the world wide web - 5th edition" - Deitel, Deitel & Neito

Learning PHP, MySQL, and JavaScript by Robin Nixon

Beginner to Intermediate PHP5

Further book and web references throughout course

USB key

First two website examples

http://www.gohop.ie/

http://www.irishjobs.ie/