

PAWS – 3COM0097

Principles and Applications of Web Services

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Web – The Easy Bit

- HTML
- HTTP
- ASP / .NET
- Java / J2EE
- XML
- CSS
- Perl
- XLST
- Interface design
- SOAP
- Dreamweaver
- WSDL
- Cold fusion
- UDDI

[elements on left / in red assumed and/or not covered]

Services – System-to-System Interfaces

- Key module concept is ...

Service Oriented Architecture

- How do you define application interfaces to ...
 - make is easy to integrate two systems
 - re-use, rather than re-invent, functionality
 - share data
- Focus is **NOT** on user or business “service”

Applications – Case Studies

- Google - how can a developer ...
 - add it to an existing web site
 - build it into an Internet application (e.g. meta search)
 - **Not Covered:** SEO, PageRank, IR ...
- Amazon – how can a developer ...
 - build their own store front
 - add book ordering to their own application
 - **Not Covered:** e-commerce, databases, UI design
- Assessment case study – travel industry

Principles

- Data structures
 - XML as data description language (not relational)
- Functional abstraction
 - describing inputs and outputs
 - messaging models
- Heterogeneous environment -
 - making .NET interface with ...
J2EE with ...
open source / CGI / Perl / Python PHP...

Course Reading

- Material taken from 4 core text books
 - Developing Enterprise Web Services, Chatterje & Webber
 - Web Services Essentials, Ethan Cerami
 - Learning XML, Ray
 - Programming Web Services with SOAP, Kulchenko & Snell
- Reading options
 - Safari on-line book service: \$135-\$180 (9 months)
 - Individual books: Amazon £79.06 (cover price \$155)
 - **CUSTOM** book: UH Bookshop, cover price £60-£75
contains all necessary content from 4 core texts

Practicalities

- ... being worked out
 - new on-campus (successful on-line Mar-Sep 2005)
 - individual assessments: 33% exam: 67%
- Teaching
 - Core learning material is study guides
 - 1 x Lecture, 1 x Practical, 1 x Tutorial
 - Guided reading is essential activity
- Learning

You have to do this