INT100 : Internet and Intranet Concepts

Code : INT100 **Duration :** 2 days **Category :** Internet

Audience :

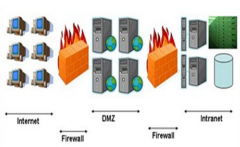
This course is designed for those who wish to learn about the background and operation of the Internet and Intranet.

Prerequisites :

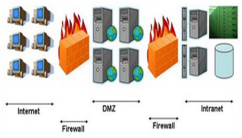
To join this course is no specific skills or knowledge is required.

Realization :

The concepts are treated with the help presentation slides. A demo Web site is used to clarify the concepts. Attention is also paid to hands-on exercises. The course material is in English.



Internet and Intranet Concepts



Contents :

The course discusses the concepts and protocols of the Internet and Intranets. Attention is paid to the role of markup languages like XML and HTML. Further subjects are CSS and Dynamic HTML, client-side JavaScript scripting, the various possibilities of server-side processing such as ASP.NET, PHP or Java Servlets and the inclusion of reusable components such as applets in Web pages and ASP.NET controls. Finally, attention is paid to recent developments relating to Rich Web User Interfaces and Web Services.

Module 1 : Internet Protocols

Basic Web Concepts
TCP/IP
Protocols and OSI Model
RFC's
IP Overview
IP Header
IP Address Scheme
Domain Name System (DNS)
File Transfer Protocol (FTP)
SMTP
SMTP, DNS and POP Topology
SMTP Functions
DHCP Protocol
DHCP Operation

Module 2 : HTTP Web Servers

HTTP Protocol
Web Servers
Web Browsers
Uniform Resource Locators
URL's
HTTP Request Messages
HTTP Request Example
HTTP Response Messages
HTTP Response Example
HTTP Request Headers
HTTP Response Headers
HTTP Status Codes
MIME Types

Module 3 : HTML Markup Language

Structuring business requirements
HTML Markup Language
HTML Pages
HTML Page Structure
Basic HTML Elements
HTML Attributes
HTML Links
HTML Tables
HTML Images
HTML Frames
HTML Forms
HTML Form Structure
Input Tags

Module 4 : XML Markup Language

XML Markup Language
XML versus HTML
Roots of XML
Markup Languages
Benefits of XML
XML Elements
XML Element Names
XML Attributes
Well Formed Documents
Valid Documents
XHTML Markup Language
HTML versus XHTML
XHTML Declarations
Advantages of XHTML

Module 5 : Internet Security

Parts of Internet Security
Security Threats
Security Issues
HTTP Basic Authentication
HTTP Digest Authentication
Encryption Types
Symmetric Encryption
Asymmetric Encryption
Hash Encryption
Signing
Secure Sockets Layer
SSL Handshakes
Secure HTTP (HTTPS)
Digital Certificates
Public Key Cryptography
Issuing and Using Certificates
DeMilitarized Zone

Module 6 : CSS

What is CSS?
Defining CSS
Applying CSS
CSS Positioning
Absolute Positioning
Relative Positioning
CSS Positioning Attributes
CSS Visibility Property
CSS Z-Index Property
CSS and XML

Module 7 : Client Side JavaScript

Dynamic Content Techniques
Client Side Scripting
JavaScript's History
JavaScript Characteristics
Variables
JavaScript Types
Numbers
Strings
Booleans
Arrays
Functions
Objects
Event Handler
Validation in JavaScript

Module 8 : Dynamic HTML

What is DHTML?
DHTML Technologies
HTML DOM
HTML DOM Example
Browser Object Model
Element Access
Important Elements
Important Properties
Event Handlers

Module 9 : Server Side Scripting

Servlets
Reading Form Data in Servlets
Java Server Pages
Simple JSP Page
PHP Scripts
Using PHP
PHP $_POST Global Variable
PHP $_GET Global Variable
Why Session Tracking?
Session ID's
Session Tracking Mechanisms

Module 10 : Web Services

What is a Web Service?
XML Transport with Web Services
RPC versus Document Style
What is SOAP?
Structure SOAP Message
Skeleton SOAP Message
SOAP Messages as Payload
SOAP Header
What is WSDL?
Basic Structure WSDL?
WSDL and Code Generation
Service Orientation

Module 11 : Rich Internet Applications

Traditional Webapps Problems
Rich Internet Applications
What is Flex?
Flex Framework
Flex Architecture
How Flex works
ActionScript
Flash Player
MXML Example
SilverLight
XAML
Drawing with XAML
HTML5