Publication date : 07/11/2024

Course : Web architecture design

technologies, uses and impact on IS

Synthesis course - 3d - 21h00 - Ref. ACS

Price : 2380 € E.T.

You'll benefit from a comprehensive overview of the knowledge required for Web architecture design. It analyzes its fields of application, assesses what's available on the market, and examines practical approaches to implementation, focusing on technological, organizational and methodological impacts.

Teaching objectives

At the end of the training, the participant will be able to:

- Understand the impact of Web technologies on corporate information systems
- Understanding the role of different technologies within a Web architecture
- Discover the different uses and services accessible via the Web
- Discover practical approaches to implementing Web technologies

Intended audience

Project managers, IT decision-makers, developers and IT managers.

Prerequisites

Basic knowledge of application architecture.

Course schedule

1 Web application architecture, state of the art

- Understand the evolution and challenges of IS.
- Intra-Inter-Extra Net architectures.
- The customer market. Servers and virtualization.
- Thin clients at any price? Mobility comes at a price, but it also meets new needs.
- Client-side applications and components.
- In-house hosting, shared hosting, hybrid and private cloud solutions. Application impact.

PARTICIPANTS

Project managers, IT decision-makers, developers and IT managers.

PREREQUISITES

Basic knowledge of application architecture.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

2 Client-side applications and components

- Application ergonomics: responsive, material, MVC impact.
- JavaScript. Java, JavaFX, Flex, SVG and Canvas components.
- What does the future hold for plug-ins and Web components?
- What are the limits to multi-channel deployment?
- HTML5: opportunities for business applications with its APIs and CSS3.
- Widgets, Gadgets, MicroFormats.
- Ajax and development frameworks (AngularJS, jQuery, GWT...).
- What is the boundary between Desktop (RDA) and Internet (RIA) components?

3 XML's role in application architecture

- Introduction to XML. XSLT transformation engines and XML parsers.
- Web services and their connection to existing applications.
- XML protocols (SOAP, WSDL). REST protocol. JSON format
- Impact of XML on Web applications. Adoption of XML as a metadata repository (DSML, XMI, etc.).

4 Application component development

- PHP, JSP, ASPX and JavaScript scripts. Component-oriented approaches (Oracle EJB, Microsoft .Net).
- Web Services", standards (REST, SOAP, WSDL...), developments (Microsoft .NET, Oracle...).
- Application servers: WebSphere, Microsoft server, Oracle Application Server 10g, JBoss Wildfly, Tomcat.
- .NET architecture. How it works and how it is implemented (Framework, ASP .NET, Common Language Runtime, etc.).
- The Java EE platform. The concept of platform independence.
- Java frameworks in vogue (Spring, Hibernate, JSF). Design Patterns.

5 Publication area

- The Web, a publication-distribution medium. Services: document and data publishing.
- Document search.
- Engine technologies: "full-text" indexing, statistics, semantics, linguistics.
- Overview: Lucene, Verity, Convera...
- Content management system (CMS). Support for document life cycle and validation.
- Management of XML metadata, authorizations, validation workflows, presentation...
- CMS offers (Drupal, Alfresco, Joomla, Spip...).
- Importance of XML-oriented versions of office tools (OpenOffice/OpenDocument).

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

6 Collaboration space

- SMTP, POP3, IMPA4 protocols. MIME protocol. Directories and LDAP protocol.
- The opening up of messaging systems to the Net. The advent of instant messaging (Google, Microsoft, Facebook, Skype).
- The future of shared diary management. Use of SMS messaging and Push Mail.
- Forums and workgroups. What application areas are there for collaborative working? Blogging and wikis.
- Workflow via the Net. Circulation of forms, process monitoring and task coordination.

7 Business applications

- The integration portal. Syndication of content and service sources.
- Portals: single point of access, customized services for each user.
- Software vendors: LifeRay, IBM... Open Source: Drupal, SPIP...
- The SOA craze and what the market has to offer. Tibco, Microsoft, Oracle, IBM...
- The real challenges of the SOA concept.
- Customer Relations, Business Intelligence and DataWeb.

8 Impact on IS security

- Safety: a global approach. New risks. Available resources.
- The role of safety in component distribution.
- Implementation of a PKI and certificates in the Intranet architecture.
- SSL protocols, HTTPS, oAuth and SSO solutions.
- MDM, fleet and security management in a BYOD, multi-channel environment.
- Solutions for e-commerce applications.

9 Impact on corporate data management

- Integration of company data.
- DBMS on the market: Oracle, SQL Server, MySQL, PostgreSQL.
- Web interfacing. Evolution. Databases in Clouds.
- Big Data: impact on real-time architectures (lambda), how to manage large volumes.
- Strengthening Business Intelligence at the heart of the architecture.
- Example of Hadoop architecture and operation (querier, data mining, etc.).

10 Design and implementation approach

- The graphic charter and usability, obtaining an AccessiWeb label.
- The ergonomics charter: role, technical content...
- Impact of Web technologies: testing, project management, drawing up functional and ergonomic specifications.
- The role of mock-ups, and how to create them The POC: which mock-up techniques?
- The principles of interaction to respect, where to start, what skills to have?
- Web project methodology. Which methodology?
- Inventory of documentary, application and decision-making sources. Maintain overall information consistency.
- What new services should be offered? Determine validation and security processes. Draw up a site map.
- Why outsource? What are the benefits? What is the reality of the "virtual office"?

Dates and locations

REMOTE CLASS
2026 : 23 June, 6 Oct., 8 Dec.

PARIS LA DÉFENSE
2026 : 23 June, 6 Oct., 8 Dec.