



Professional Education Programs

Course Mastering XML using Java

Overview The introduction of XML (eXtensible Markup Language) has revolutionized the use of the Web by providing for structured information that can be exchanged among computer systems as well as human users. Thus, XML successfully addressed interoperability among diverse information systems both across enterprises and inside enterprise boundaries.

This course will first provide a thorough introduction to XML and then explore in-depth related technologies such as XML Namespaces, DTDs, XML Schemas, XSL, XSLT and XHTML. Each of the topics will be followed by practical training where participants will master XML technologies with Java using SAX and DOM.

Objectives Having followed this course, participants will be able to:

- Author well formed XML documents
- Author Document Type Definitions (DTD) and XML Schemas
- Validate XML documents
- Employ eXtensible Style Sheets (XSL) and Cascading Style Sheets (CSS)
- Use the eXtensible Stylesheet Language (XSL) and XSL Transformations (XSLT)
- Use the eXtensible HTML (XHTML)
- Use the SAX API for handling XML documents
- Use the DOM API for handling XML documents
- Understand how XML applies for Business-to-Business and Business-to-Customer solutions and how it can be integrated with databases and servlets.

It is designed as an introductory/intermediate course on the topic which also addresses certain advanced issues.

Who should attend This Short Course is intended for:

- System developers and integrators who need to author well-formed and valid XML documents and employ XML in Java based solutions
- System designers who will gain a thorough understanding on the benefit of XML in the B2B and B2C domains
- Technical Managers who wish to gain an understanding of the potential of XML technologies

Prerequisites Programming experience with the Java programming language is required, while familiarity with HTML will be helpful.

Duration 5-day sessions

Instructor Dr. J. Soldatos
Dr. I. Christou

Course outline Lectures designed to build the theoretical knowledge on the topic cover (70 %) of the course duration. The rest (30%) is devoted to acquiring hands-on experience through laboratory exercises to be carried out in AIT's software lab. The opportunity for practical training is offered on a number of topics defined below.

Optional homework assignments and quizzes will be available to interested groups and/or individuals.

The course contents per day follows:





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Day 1:

- Introduction to XML
 - XML Basics
 - XML Authoring
 - Document Type Definitions
- Practical training
 - XML authoring tools
 - DTD authoring tools and validation

Day 2:

- Introduction to XML
 - XML Schemas
 - XHTML
- Practical training
 - XML authoring tools
 - XML schema authoring tools and validation
 - XHTML authoring

Day 3:

- XML Document Processing with Java
 - Java and XML
 - Understanding and using SAX
 - Understanding and using DOM
 - Understanding and using JAXP
- Practical training
 - Use of Apache SAX, use of Apache DOM

Day 4:

- XML Presentation & Transformation with Java
 - The eXtensible Stylesheet Language
 - Java and XSLT
- Practical training
 - Use of XSLT with Java

Day 5:

- XML solutions
 - XML and databases
 - XML for the enterprise
 - XML and servlets
- Practical training
 - Example of XML-Database integration, Creating a servlet for XML processing

Tuition Fee N/A

Discount Policy

Cancellation Policy





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Program Registration www.ait.edu.gr/profPrograms/reg_form/admission_form.asp

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