TheTestplace.com

Introduction to CORBA® with Java™

Description

This 4-day course teaches participants how to build CORBA® applications using Java™

The course has Lecture-style presentations with numerous hands on exercises that apply the concepts discussed.

Format

4 days 50% lecture 50% lab exercise

Participants

This course is intended for develope already experienced in Java but are new to CORBA.

Prerequisites

Delegates need good general computing experience with some development experience using J2SE (approx 6 months)

Working knowledge of Windows® Linux®/Unix® operating systems

Presentation Requirements

The maximum number of delegates for the course is 12

A room that allows delegates to both work freely at their workstation and view a screen

Direct project from computer systen for Tutor for display of slides and demonstration of Programming

PC to screen projector
Whiteboard or flipchart

Course Materials

Course notes, slides and exercises ar supplied in Adobe Acrobat format files (suitable for PC, Mac, and Uni

Lab exercises are supplied in text fil

Course Outline

Introduction to CORBA

CORBA Fundamentals
Object interfaces versus object Implementations
Basic CORBA concepts;
The ORB™ and Object Adapters;
CORBA object references.
CORBA Architecture and Services
COS Events, COS Naming, Security

Introduction to IDL

The main constructs of IDL:
Simple and complex data types;
interfaces; attributes; operations;
interface inheritance;
IDL to Java Mapping

Developing server-side CORBA

There are two ways to implement a CORBA servant class: ImplBase inheritance and Tie delegation. The simplest approach is to use the ImplBase inheritance, where the servant class inherits from the skeleton class generated by the IDL compiler. The skeleton class is responsible for automating the housekeeping operations, such as registration with the Object Adapter.

The TIE Approach (TIE Delegation)

Building servant classes using the TIE approach; comparison of TIE approac with inheritance approach

Advanced IDL

Callback Objects with CORBA

The Portable Object Adapter

CORBA Object Adapter concept; POA policies; managing object life cycle with POA: object creation and activation,
servant managers, default servants, object deactivation; POA managers; request flow control; POA activation;

Call Back Objects

Client applications often need to react to changes, or events that occur on a server. Rather than polling the server for amount of stock, a better way would be for the client to ask the server to call it bac when the number of items in stock has fallen below a specified threshold. This can be achieved by using a "callback" object

RMI over IIOP

Java™ Remote Method Invocation over Internet Inter-ORB Protocol technology ("RMI-IIOP") is part of the Java™ 2 Platform, Standard Edition (J2SE™). The RMI Programming Model enables the programming of CORBA servers an applications via the `RMI` API.

On-Site Equipment Requirements

To deliver the course each delegate should have individual access to a system, the system shall have:
A Java 2 compiler and runtime virtual machine (e.g. JDK1.3.1)
A text editor such as Notepad, Textpad or JBuilder IDE
Adobe Acrobat Reader

An Account on the system that allo a user to compile and execute programs and modify their environment variables
Winzip or equivalent
A Java enabled web browser

Additionally it must be possible for the course materials including lab exercises to be transferred onto the systems from an ISO 9660 CD-RO

If no suitable equipment is availabl then TFJ can arrange for the hire of equipment for the duration of the course.

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