

CO1050 – OO COBOL AND JAVA INTERACTION ON z/OS

Course Synopsis

Duration:	Four (4) days.
Audience:	This course is intended for application developers and other information systems personnel.
Prerequisites:	<p>It is highly recommended that students have obtained the knowledge and skills provided by classes or otherwise obtained for the following topics:</p> <ul style="list-style-type: none"> • Basic understanding of Client/Server, HTTP Server and WebSphere MQ environments and terminology • Have at least 1 year of application programming experience in Cobol and/or Java • Have at least a general knowledge of TSO, z/OS functionality and supporting features such as JCL and utilities
Delivery Method:	Instructor led, Hands-on workshops

Brief Description

The course is designed to provide the skills necessary develop and test OO Cobol and Java programs which interact with each other on z/OS systems. A complete look at the features and facilities provided by the various z/OS components in support of this type of processing will be provided.

The major areas of focus will be providing an understanding of the effort necessary to allow OO Cobol and Java programs to call one another, pass information between programs and work with common facilities such as XML and SQL. Other topics, such as HTTP servers and WebSphere MQ, will be lightly covered as required to provide a more complete, real world feel for the workshops. However, the students will not require an in depth knowledge of some of the supporting facilities, only a basic understanding of the terminology.

The course begins with an overview of the principle languages facilities utilized throughout the course. Next the course covers the z/OS components UNIX System Services and HTTP Servers as they relate to application implementation. The next portion of the course covers common data representation through facilities like Unicode and XML. Finally, some debugging and problem solving information will be provided.

Students are encouraged to bring both current and planned application design specifications with them to class to provide for discussion. It is also recommended that application database and/or file layouts be included within the information to assure a more accurate understanding of how this data will be impacted by the topics discussed.

Course Objectives What You'll Learn

This course will provide the knowledge base for implementation of OO Cobol and Java program interactions on z/OS systems. Upon completion of the course, the student will be able to:

- Describe the key related features and facilities available within OO Cobol.
- Describe the key related features and facilities available within Java on z/OS.
- Describe, explain and better understand the functions provided by z/OS components like USS and HTTP Servers.
- Describe, explain and better understand the facilities provided by components like Unicode and XML.
- Gain a basic knowledge of the storage capabilities used in support of these applications.
- Gain a basic knowledge of the debugging and management facilities provided by z/OS in support of these applications.

CO1050 – OO COBOL AND JAVA INTERACTION ON z/OSTopics
Covered Continued**I. Brief Introduction to UNIX System Services (USS)**

- What is USS
- How does it work
- Considerations and access a terminal session
- Description of zFS and basic utilities in support of applications
- Workshop to access USS and work with file system

II. Brief Introduction to Object Oriented Programming Technology

- What is OOP
- Definition of OOP components and terminology
- Comparisons between OO and structured programming techniques

III. OO Cobol

- What is OO Cobol
- How does it work
- How to Compile OO Cobol
- Language Environment and other considerations
- Workshop to compile and test OO Cobol program

IV. Java

- What is Java
- How does it work
- How to Compile Java
- JDK and other considerations
- Workshop to compile and test Java program

V. Brief Introduction to HTTP Servers

- What is an HTTP Server
- How does it work on z/OS
- Considerations and access from a browser
- Workshop to access programs built in previous workshops

VI. Unicode

- What is Unicode
- How does it work
- Considerations in Cobol and Java
- Considerations in DB2
- Workshop in Cobol and Java
- OO Cobol and Java Interaction on z/OS cont.

VII. Brief Introduction to HTML and XML

- What is HTML
- How does HTML work
- What is XML
- How does XML work
- Considerations in Cobol and Java
- Considerations in DB2
- Workshop for use in Cobol and Java

VIII. Debugging

- Brief introduction to IBM Debug Tool
- Using the Debug Tool With Cobol
- Web debugging from a mainframe perspective
- Workshop to debugging an OO Cobol program