Course Outline

WebSphere WMQ Application Programmers

Course Summary

Description

This course is designed to provide solid technical knowledge for application programmers so that they will be able to code applications using IBM's WMQ MQI. The material is at V7 level.(applicable for WMQV8, V9) This class contains hands-on exercises for a variety common message type programs. Application design will be emphasis to build robust messaging applications with good performance. JMS concepts and components and its relationship with WMQ will be discussed. Functions to incorporate MQ with SOA, Web Services and ESB will be covered. This is equivalent to IBM SW313, SW315 and MQ700.

Topics

- WMQ Architecture
- WMQ Components
- MQI
- Distributed MQ
- Request and Reply
- Triggering
- Unit of work
- Security and Message
- JMS Fundamentals
- WMQ Advanced Topics

Audience

This course is designed for WMQ applications designers and developers. Up to two programming languages may be used for this class with choice of Z/OS, Windows or any UNIX platform.

Prerequisite

- Students must have experience in a programming language, one of Cobol, C, or Java.
- Knowledge of databases or transaction management is desirable.

Duration

Four Days

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I. *WMQ Architecture*
- A. Middleware Architecture
- B. Messaging Characteristics
- C. Program Communication
- D. Application Integration
- E. Service Oriented Architecture (SOA)
- F. Enterprise Service Bus (ESB)
- G. Quiz 1

II. *WMQ Components*
- A. Message Structure V6 & 7
- B. Queue
- C. Queue Manager
- D. MQI Introduction
- E. Quiz 2
- F. Exercise 1

III. *MQI*
- A. WMQ programs
- B. MQI Calls
- C. WMQ structures and classes
- D. Constructing Messages
- E. Quiz 3
- F. Exercise 2

IV. *Distributed MQ*
- A. MQ across multiple Systems
- B. Programming Considerations
- C. Distribute Messaging
- D. MQ Clients
- E. Quiz4
- F. Exercise3

V. *Request and Reply*
- A. Online application considerations
- B. Design choices
- C. Using Dynamic Queues
- D. Quiz5
- E. Exercise 4

VI. *Triggering*
- A. Implementation
- B. Considerations
- C. Other Choices
- D. Quiz 6
- E. Exercise 5

VII. *Unit of work*
- A. Multi-point Choices
- B. Grouping
- C. XA Coordination with Databases
- D. Publish and Subscribe
- E. Quiz 7
- F. Exercise 6

VIII. *Security and Message*
- A. Context
- B. API Exit
- C. Quiz 8
- D. Exercise 7

IX. *JMS Fundamentals*
- A. Architecture
- B. Components
- C. Point to Point
- D. Publish and Subscribe
- E. Working with WMQ
- F. Quiz 9

X. *WMQ Advanced Topics*
- A. V7 API calls
- B. Design for Performance
- C. Other API
- D. SOA
- E. ESB
- F. Message Broker

- There are test questions after each Module. These are similar to IBM's certification questions and prepare students for the test.
- Hands-on lab exercises are provided for students to do coding and debugging MQ programs.