

WebSphere MQ for System Administrators

Course Summary

Description

This course is designed to provide technical knowledge for system administrators or system programmers to install, customize and support a network of MQ managers. Three common platforms Solaris UNIX and Windows will be covered so students will know their concepts and structure. This course also provides hands-on setup and tailoring of queue managers. Since most WMQ installations have queue managers on multiple platforms, the coverage of this course will give insight to administrators the challenge and solution for such a MQSeries complex. A lot of emphasis is given to the connection of multiple queue managers and the control of recovery of channels. Common problem determination techniques is discussed with examples using MQ supplied tools. This course covers materials that are required for taking IBM's certification.

Topics

- WMQ Structure
- Installation
- Customization
- Intersystem Communication
- Operation
- System Administration
- WMQ Application Interface (MQI)
- Triggering
- Clustering
- Security
- Problem Determination
- Review Questions
- Hands-on Exercises

Audience

This course is designed for WMQ System Administrators and System Programmers. Class size is limit to 14 students per class.

Prerequisites

Students must have experience in one of the three operating systems, one of, ZOS, UNIX (AIX, HP or SUN Solaris or Linux), or Windows (XP or Vista). Knowledge of databases or transaction management is desirable.

Duration

Four days

WebSphere MQ for System Administrators

Course Outline

I. IBM WMQ

- A. WMQ for ESB and SOA
- B. Message Structure
- C. Queue Manager
- D. Queue
- E. Other MQ objects
- F. Quiz 1

II. IBM's WMQ Structure

- A. Components of WMQ for Z/OS, UNIX and Windows
- B. Distributed WMQ intercommunication
- C. MQ Client
- D. Relationship to Databases and Transaction Managers (CICS, IMS, MTS)
- E. Quiz 2

III. Installation and Customization

- A. Z/OS-subsystem, BSDS, Logs and PageSets
- B. Distributed Platforms – Installation, Create QMGR, Logs, Directories Libraries
- C. Z/OS-ZPARM, XPARM, procedures
- D. Distributed Platforms – Parameters, queue manger options
- E. Other system processes
- F. Quiz 3
- G. Quiz 4
- H. Exercise 1 (Create a queue manager)

IV. Operation and Administration

- A. Z/OS-console commands, ISPF panels and utilities
- B. Distributed Platforms – System Commands, MQ System Commands
- C. WMQ Explorer
- D. PCF Commands
- E. Manage MQ Objects- Define, Display and Alter
- F. Procedures
- G. Quiz 5
- H. Exercise 2 (Use NT system commands and MQ system commands)

V. Naming Convention

- A. Queue Manager
- B. Predefined Queues

- C. Dynamic Queues
- D. Transmission Queue
- E. Alias Queue
- F. Channels
- G. Queue Manager Alias
- H. Process

VI. MQI structure

- A. MQI calls
- B. Local and remote calls
- C. Request/Reply mode
- D. Triggering
- E. Quiz 6
- F. Exercise 2 (Running Sample Programs 1)
- G. Exercise 3 (Setting up triggering environment)

VII. Intersystem Communication

- A. Channels
- B. Components
- C. Controlling and Recovery
- D. Remote Queuing
- E. MQ Client
- F. Exits
- G. Quiz 7
- H. Exercise 4 (Setting up Connections)
- I. Exercise 5 (Running Sample Programs 2)
- J. Exercise 6 (Setting up MQ Clients)

VIII. Recovery and Restart

- A. Backup System Objects
- B. Backup Application Objects
- C. Co-ordination with Databases and CICS
- D. Re-creating Objects
- E. Quiz 8
- F. Exercise 7 (Running Recovery Utilities)

IX. Clustering

- A. Architecture
- B. Components
- C. Setup
- D. Workload Exit
- E. Share Queue
- F. Quiz 9
- G. Exercise 8 (Setting up Cluster)

WebSphere MQ for System Administrators

Course Outline (cont'd)

X. Monitoring and Performance

- A. Components
- B. Events
- C. Statistics and Accounting Data
- D. Vendor Products
- E. Home Grown

XI. Security

- A. Architecture
- B. Z/OS External Security Manager
- C. UNIX/NT/OAM
- D. Firewall
- E. Application
- F. End-to-end
- G. Quiz 10

XII. Problem Determination

- A. Z/OS-SMF, Console Log, Logrec, Dumps
- B. Distributed Platforms - Error FFST, Trace,
- C. System Levels Syslog, Event Viewer
- D. Quiz 11
- E. Exercise 9 (Look at sample Traces)