Course Code: ZM513GS

Course Title: IBM MQ V9 Application Development (Windows Labs)

Description:

This self-paced course with hands-on exercises is also available as classroom course IBM MQ V9 Application Development (Windows Labs) (WM513G).

This course helps you develop the skills that are necessary to implement various application requirements on IBM MQ versions up to and including IBM MQ V9.0.2. It focuses on procedural application development for IBM MQ.

The course begins by describing IBM MQ and the effect of design and development choices in the IBM MQ environment. It then covers IBM MQ application programming topics such as methods of putting and getting messages, identifying code that creates queue manager affinities, working with transactions, and uses of the publish/subscribe messaging style.

Finally, the course describes the IBM MQ Light interface, introduces Advanced Message Queuing Protocol (AMQP), and explains how to set up an AMQP channel and how to interface with IBM MQ Light.

Hands-on exercises throughout the course reinforce the lecture material and give you experience with IBM MQ clients.

Objectives:

- Describe key IBM MQ components and processes
- Explain the effect of design and development choices in the IBM MQ environment
- Describe common queue attributes and how to control these attributes in an application
- Differentiate between point-to-point and publish/subscribe messaging styles
- Describe the calls, structures, and elementary data types that compose the message queue interface
- Describe how IBM MQ determines the queue where messages are placed
- Explain how to code a program to get messages by either browsing or removing the message from the queue
- Describe how to handle data conversion across different platforms
- Explain how to put messages that have sequencing or queue manager affinities
- Explain how to commit or back out messages in a unit of work
- Describe how to code programs that run in an IBM MQ Client
- Explain the use of asynchronous messaging calls
- Describe the basics of writing publish/subscribe applications
- Describe the Advanced Message Queuing Protocol (AMQP)
- Differentiate among the various IBM MQ Light AMQP implementations
- Explain how to use IBM MQ applications to interface with IBM MQ Light

Exercises

- Exercise 1: Working with IBM MQ to find your message
- Exercise 2: Getting started with IBM MQ development
- Exercise 3: Working with MQOPEN and queue name resolution, MQPUT, and MQMD fields
- Exercise 4: Correlating requests to replies
- Exercise 5: Commit and backout review

- Exercise 6: Asynchronous messaging review
- Exercise 7: Working with an IBM MQ client
- Exercise 8: Working with publish/subscribe basics
- Exercise 9: Exchanging messages between IBM MQ applications and IBM MQ Light applications

Prerequisites:

- Successful completion of Technical Introduction to IBM MQ (WM103G), or comparable experience with IBM MQ
- Experience in business application design
- Experience in C language development

Duration:

24 Hrs

Topics:

- Course introduction
- IBM MQ overview
- Exercise: Working with IBM MQ to find your message
- Basic design and development concepts
- Exercise: Getting started with IBM MQ development
- MQOPEN, queue name resolution, and MQPUT
- Exercise: Working with MQOPEN and queue name resolution, MQPUT, and MQMD fields
- Getting messages and retrieval considerations
- Exercise: Correlating requests to replies
- Data conversion
- Bind and Message groups
- Committing and backing out units of work
- Exercise: Commit and back out review
- Asynchronous messaging
- Exercise: Asynchronous messaging review
- IBM MQ clients
- Exercise: Working with an IBM MQ client
- Introduction to publish/subscribe
- Exercise: Working with publish/subscribe basics
- Advanced Message Queuing Protocol (AMQP) and IBM MQ Light
- Exercise: Connecting IBM MQ Light applications to IBM MQ applications
- Course summary

Audience:

This course is designed for application developers and architects who are responsible for the development and design of IBM MQ applications.