

## Training: IBM IBM MQ Application Development (Linux Labs)



### TRAINING GOALS:

This course focuses on procedural application development for IBM MQ. It covers basic concepts applicable to most IBM MQ versions, new IBM MQ V8 capabilities, and V8.0.0.4 capabilities such as capped message expiry, redistributable clients, and URL support for client channel definition tables.

The course begins by describing IBM MQ, explaining the impact of design and development choices in the IBM MQ environment. It then describes IBM MQ application programming concepts, and provides programming topics and exercises to develop the skills necessary to implement various application requirements. These topics include methods of putting and getting messages, identifying code that creates queue manager affinities, and working with transactions. The course then provides lectures and hands-on experience with IBM MQ clients, and use 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.

For information about other related courses, see the IBM Training website:

<http://www.ibm.com/training>

- Describe key IBM MQ components and processes
- Explain the impact 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

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

## CONSPECT:

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), IBM MQ Light, and IBM MQ

Exercise: Connecting IBM MQ Light applications to IBM MQ applications

Course summary

## REQUIREMENTS:

- 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

## Difficulty level

