

## IBM WebSphere Message Broker Online Course

### Unit1: WebSphere MQ

- Overview of MQ.
- Types of Messaging
- How Message Queuing Works
- Various Objects-Queues, channels.
- Different types of queues.
- Different types of channels
- Creation of Queue Manager, Queues and channels
- Communication between Queue managers
- New Features of WMQ 7.0 (Capable of Handling Huge Message Sizes)
- Message Handling in MQ, --Segmentation of Messages
- Triggering
- Clustering

### Unit2: WebSphere Message Broker Overview and Architecture

- Need for Integration (EAI)
- SOA Architecture Overview
- Queue Manager Queues
- & Types of queues
- Architecture of Message Broker
- Installation Overview w/t Software pre requisites
- Components of Message Broker
- Broker, Broker Domain, Configuration Manager, and User Name Server

### Unit3: Message Flows and Message sets Development

#### Message flows

- Introduction to Message flows(EAI)
- Built-in nodes and configuring their properties
- Input and Output nodes
- Distributed Queue Management
- How DQM Works?
- Message Manipulation and transformation nodes
- Decision making nodes
- Sub flow identification nodes
- Design Message Flows & Sub Flows
- Introduction to Message sets
- Domains & Parsers
- Message Modeling
- Message Set Projects
- Message Sets
- Message Definition Files
- Physical formats in the MRM domain
- Mapping (Overview, Types of Mapping 'n' Database with mapping)

### Unit4: Introduction to ESQ

- Programming Structure

- Data Types, Variables, Field references
- Operators, Statements
- Functions, Procedures & Modules
- Configuring ESQL within Nodes
- Correlation Names
- Logical Tree Structure
- Message tree
- Environment tree
- Local Environment tree
- Exception List tree

#### Unit5: Error Handling

- Error Handling Flow Design
- Error Handling Mechanism(Email , Database logging)

#### Unit6: Testing

- Module Testing
- Testing performance of ESQL
- Testing Tools for Message Broker

#### Unit7: Working on Scenarios

- Working with Message Broker nodes and ESQL

#### Debugging

#### Unit8: Logs

- Event Log
- Error Log (Event Viewer)
- Database Log
- Trace
- User Trace
- Service Trace
- Dealing with Installation and Configuration Problems

#### Flow Debugging

#### Unit9: Publish/Subscribe

- Overview of Publish/Subscribe
- Publishing
- Subscribing
- Creating Topics
- MQ Pub/Sub
- User Name Server(Over View)

#### Unit10: Web Services

- Overview of Web Services
- Developing Web Services
- WSDL (Web Service Description Language)
- SOAP (Simple Object Access Protocol)
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- UDDI (Universal Description Discovery Integration)
- Publishing Message Flow as Web Service
- Interacting with Web Services through Message Flow
- Testing and Validating Web Services
- Using HTTP nodes w.r.t Web Services

#### Unit11: Database Interaction

- DB Interaction ODBC
- DB Interaction via DB Retrieve and DB Route Nodes
- Enabling DB lookups by DB nodes without using JDBC Adapter