Mirth Connect Course Curriculum

Course Aims

This course is for HL7 programmers, interface developers and dedicated Implementers and is designed to provide the skills for the analysis testing, problem tracking and activation of phases of an HL7 project. Attendees will learn HL7 design, trigger concepts, message formatting rules, data types, enhanced acknowledgement rules, identifiers, and table translation issues. Course work includes hands on exercises.

On completion of this course, attendees will have gained a deep understanding of HL7 messaging processes and practices, with the ability to effectively read, understand, analyse, design, develop, market and test HL7 messages.

Course Structure

- Session 1 – Networking – 30 Mins
- Session 2 - 6 – Mirth Integration Engine – 180 Mins
- Session 7 – Mirth Connect – Channel Creations – 15 Mins
- Session 8 – Mirth Connect – Channel Creations – 15 Mins
- Session 9 – XML – E4X – 60 Mins
- Session 10 – Mirth Connect – Channel Creations – 60 Mins
- Session 11 – Mirth Connect – Channel Creations – 60 Mins
- Session 12 – Mirth Connect Filters/Transformers – 60 Mins
- Session 13 – Mirth Connect Filters/Transformers – 60 Mins

Session 1 – Networking – 30 Mins
Objective

This session covers details of Networking that comes in to play while implementing an HL7 interface

- TCP/IP
- Folders
- SFTP/FTP
- Webservices

Session 2 - 6 – Mirth Integration Engine – 180 Mins
Objective

This session examines the details of Mirth Integration Engine Architecture

- Session – 2
  - Mirth Architecture and Installation
- Session – 3
  - Mirth Connect Components
    - Dashboard
    - Channels Tasks
    - Alerts
    - Events
    - Extensions
    - Group tasks

- Session – 4
  - Mirth Connect Components
    - Summary tab and Source tab
- Session – 5
  - Mirth Connect Components
    - Source tab and Destination tab
- Session – 6
  - Mirth Connect Components
    - Variables in destination screen
    - Scripts tab
    - Message view screen its options
- Session – 7
  - Message Forms
    - Raw, Encoded, Transformed, Sent, Response

Session 7 – Mirth Connect – Channel Creations – 15 Mins
Objective

This session helps you to start building real time HL7 channels

- Creating Channels
  - Explanation of scenario
  - Folder to Folder – HL7 – pass thru channel with Demo

Session 8 – Mirth Connect – Channel Creations – 15 Mins
Objective

This session helps you to start building real time HL7 channels

- Creating Channels
  - Explanation of Scenarios
  - Folder to TCP/IP – HL7 – pass thru channel with demo
  - TCP/IP to Folder - pass thru channel with demo

Session 9 – XML – E4X – 60 Mins
- XML and how it is read
- Importance of E4X and how navigation works

Session 10 – Mirth Connect – Channel Creations – 60 Mins
- Creating Channels – Database Reader
  - Database reader to a Folder
  - Explanation of message builder Transformer
  - Construct HL7 using msg builder
  - Creating custom segments – Z segments

Session 11 – Mirth Connect – Channel Creations – 60 Mins
- Creating Channels - Database Writer
  - Folder to Database writer
  - Mapping variables of HL7
  - Inserting Data using created variables

Session 12 – Mirth Connect Filters/Transformers – 60 Mins
- Filters
  - Rule builder
  - External Script
  - JavaScript
  - Use case scenarios

Session 13 – Mirth Connect Filters/Transformers – 60 Mins
- Transformers
  - External script
  - JavaScript
  - Mapper
  - Message Builder
  - Use case scenarios
- Explanation of Channel Maps