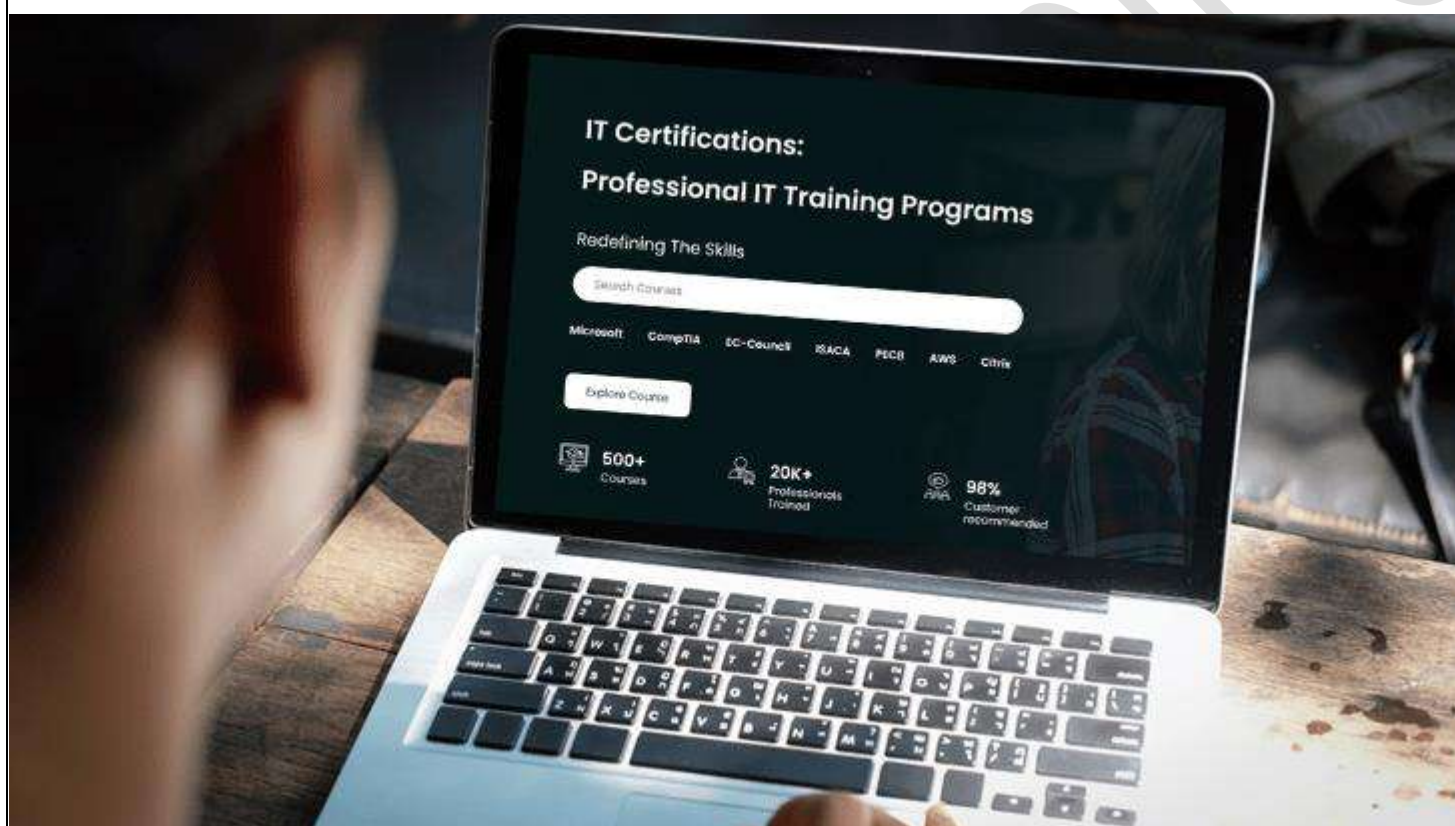




Redefining The Skills



HL7 FHIR® TRAINING

Duration: 3 Days

Course Description

This course is for FHIR programmers, interface developers and dedicated Implementers and is designed to provide the skills for the analysis testing, problem tracking and activation of phases of a FHIR project. Attendees will learn FHIR design, message formatting rules, data types, enhanced acknowledgement rules, identifiers. Coursework includes hands-on exercises.

What to Expect

- Instructors that are both working professionals and experts in HL7 FHIR
- Instructors with HL7 certification who evaluate and comment on each module
- Discussion boards that encourage participation and interaction
- Each module includes exercises that put what you've learned into practise.

Server Requirements

- Server/System that can access FHIR HAPI server
- Postman/Insomnia
- SmartHL7 viewer
- Access to clinFHIR
- SQL server
- Mirth Connect
- Java – 1.8
- Notepad++
- VSCode

Prerequisites

- Nothing specific, basic knowledge about RESTAPI's and JSON

Curriculum

Module 1: Introduction to FHIR

This Module will give an understanding of why FHIR is used in healthcare and the goals that are achieved.

- Hospital Workflow
- Purpose of FHIR
- Use case scenario to solve problem
- FHIR Material overview
- Patient resource structure – Basic (very high Level)
- JSON Format
 - Elements/Properties
 - Single Value assignments Vs Object assignments
 - Array assignments

Module 2: FHIR Resources In-depth

These Modules give an understanding of what FHIR is and its concepts. It introduces Resources and then goes into the building of FHIR messages and the elements involved in the object construction. It goes into detail of the structure. We will have hands-on using VSCode to create a resource

- Resources – Patient Resource
 - Understanding Resource structure
 - Ancestor resources
 - Constructing a resource in Notepad++
 - Updating a resource using Schema reference (VS Code)
 - Searching for Resources – Basic
 - FHIR Maturity levels

Module 3: REST Services and other Paradigms of FHIR

These Modules details of how we use REST services in REST paradigm of FHIR. We will have hands-on using Postman/Insomnia and interacting with HAPI FHIR server

- Client Server architecture
- REST Services – Introduction to REST
- REST Services in Action
- Basic REST Principles and URL Structure
- What is an API?
- Interactions in FHIR – CRUD Operations
 - Instance Level
 - Type Level
 - Whole System Level
- Searches

Module 4: Other Resource structure, Resource References and Workflows

These Modules details of other resources and their structure and workflow examples. Will have hands-on using ClinFHIR (Check the cert cheat sheet to talk about workflow modules)

- Practitioner
- Organization
- Appointment resource
- Encounter Resource
- Service Request
- Observation
- Diagnostic report
- Medication Request
- Workflow Modules
- Resource Life cycles

Module 5: Special Resources/Concepts/Searches

These Modules details of other special resources and their structure and workflow examples. Hands-on using Postman/Insomnia

- Bundled Resources
 - Posting Multiple resources
 - Additional Operation
 - Usage of Temp Place holder UUID

- Contained Resources
- Advanced Search
 - Sort
 - Content
 - Count
 - Date
 - Elements
 - Include
 - Rev include
 - Chaining
- Extensibility
 - Simple extensions
 - Complex extensions
 - Steps to create an Extension

Module 6: Mirth and V2 to FHIR Conversions

These Modules are to understand how to use an Interface Engine like Mirth Connect to convert HL7 V2 messages to FHIR and post them. Hands-on using Mirth Connect

- Filters and Transformers
- Conversion of HL7 V2 to FHIR and posting to HAPI server

Module 7: Security

- Security protocols overview
 - SSL certificates and their workflow
 - Basic Authentication
- OAuth 2.0
 - Auth 2.0 Terminology
- SMART on FHIR
 - Concept of Smart on FHIR
 - Workflows using SMART on FHIR

Module 8: Conformance and Profiling

These Modules details about conformance related topics and profile building concepts

- Profiling and its concepts
- Capability statement
- Structure Definition
- Implementation guide
- Interpreting flags and Icons
- Licensing

Module 9: Terminology

This Module details of the concepts of Terminology overview and how to use public servers

- Understanding the usage of Terminologies
- Code system
- Value sets

Module 10: Preparation for certification

These Modules details on topics that you must go through to complete your certification.

- Overview of the exam
- Weightage for individual topics
- Sample question

For any query Contact Us – Microtek Learning
