Intermediate Level Course on HL7 FHIR
Creating and exchanging electronic healthcare information

Learn by Doing
The FHIR Intermediate course is an asynchronous (no live lectures) online instructor-facilitated course completed at your own pace to meet assignment deadlines. It provides opportunities to apply newly gained knowledge with a set of guided exercises for learning by developing and reviewing working software.

At the End of the Course, Participants Will be Able to:
• Understand the scope and content of the Argonaut and IPS IG
• Comprehend the general characteristics of a FHIR client
• Understand and modify a FHIR client in C#, Java or JavaScript
• Understand the mechanisms for FHIR servers used as API facades
• Use SMART on FHIR to connect to an EHR
• Use CDS Hooks to provide clinical decision support for an application or system

Web-Based Training
• HL7 expert teachers are working professionals who help you step-by-step
• All course materials included electronically: reading materials, videos and practical exercises
• Discussion forums promote student engagement
• Integration activities are stewarded by the teaching team
• Self-evaluation quizzes test for comprehension

Prerequisites / Enrollment Priorities
• Prior experience in HL7 FHIR is required (completing the HL7 FHIR Fundamentals course before taking this course is recommended)
• Familiarity with C#, Java and/or JavaScript is strongly recommended
• Recommended for developers only

How to Enroll
• Visit: www.HL7.org/training/fhir-intermediate.cfm

Program

MODULE 1 — IMPLEMENTATION GUIDES
• FHIR Implementation Guides: Argonaut Data Query / Provider Directory & IPS
• Development and Roadmap
• Scope, Use Cases, Guided Tour

MODULE 2 — FHIR CLIENTS
• General Guidelines
• FHIR Clients in Java
• FHIR Clients in C#
• FHIR Clients in JavaScript

MODULE 3 — FHIR SERVER
• FHIR Server Types and Patterns
• Specific FHIR Servers (FHIR Facade)
• Use Case / Scenarios / Architecture
• Where to Put the FHIR Facade
• Facade in C# / Java

MODULE 4 — SMART ON FHIR / CDS HOOKS
• SMART on FHIR Basics
• CDS Hooks Intro
• Integrating Your App with SMART on FHIR and CDS Hooks

Full Course (4 Modules)

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*For Middle and Lower Income Economies as determined by the World Bank. Visit data.worldbank.org/country to view classifications
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An intermediate online course covering HL7 FHIR:

- Four modules over six weeks via guided real-world exercises with instructor assistance and feedback via the web, and with an interactive community of participating students and instructors
- A typical week:
  - Study from reading materials
  - Get help from an instructor through the web via an exclusive forum
  - Apply knowledge through a variety of coding exercises (code review, build your own, architectural problems)
  - Get feedback on your progress

Learn about developing FHIR clients and specific servers using open source libraries for HL7 FHIR:

- C#, Java and JavaScript
- Integrate leveraging the Argonaut and IPS implementation guides
- Understand the concepts and machinery behind SMART on FHIR and CDS Hooks

This course is recommended for:

- Developers who are already familiar with FHIR and want to delve deep into the knowledge required to use it for real world projects
- Developers with experience programming with C#, Java and/or JavaScript
- Developers who wish to gain an overall technical experience of SMART on FHIR and CDS Hooks

HL7 is an ANSI-accredited, not-for-profit standards developing organization with the mission of empowering global health interoperability. With affiliates in over 30 countries, HL7’s global membership envisions a world in which everyone can securely access and use the right data when and where they need it.

Please contact Sadhana Alangar, PhD for any questions regarding this course at sadhana@HL7.org