



Health Information Systems Implementation with openEHR

towards the standard and interoperable EHR

*open***EHR**

The open standard for future proof EHRs.

Course goals

The main objective of this course is to gain the required knowledge to implement software components based on the openEHR specifications, including: user interface generation, clinical data validation, openEHR document generation in XML, design of clinical repositories and exchange of clinical data between systems.

Why this course?

The openEHR standard allows to improve multiple aspects of health information systems, including flexibility, maintainability, interoperability, access to clinical data, and technology independence. But the implementation of the standard is not simple. There exist many technical, conceptual and methodological challenges, which require a great investment in time for studying the specifications, trying out tools, and testing available technologies.

This course is for those who want to understand more about the standard and how it's used in real software components, including testing technologies and getting experience in tools used by the openEHR community. You'll learn good design and implementation practices, alongside with useful tips accumulated in years of working with the standard.

We look to shorten the gap between the specifications and a concrete implementation.

This is the first course worldwide of openEHR implementation for developers.

Target audience

The main audience for this course are professionals and students of Software Engineering and Computer Science (developers, software architects, IT leads, DBAs, etc.) with interest in health information systems and openEHR.

It is recommended to have knowledge about communication protocols (TCP, HTTP), formats (XML, JSON), and basic knowledge around openEHR. It is required to have programming knowledge (we'll use Java and Groovy as reference programming languages).

Program

Module	Temario
1. Intro to openEHR: information model, archetypes and templates	<ul style="list-style-type: none"> + Introduction to the openEHR Information Model + Modeling with Archetypes and Templates, ADL and XML formats + Archetype and Template use in software + Architecture of openEHR Information Systems + Loading and handling of Archetypes and Templates in software
2. Data validation and GUI	<ul style="list-style-type: none"> + Data validation with Archetypes + Activity: creating an openEHR data validator in code + Automatic generation of user interfaces from Archetypes and Templates + Study case analysis: EHRGen + User interface template specification

3. XML clinical documents and repositories	<ul style="list-style-type: none"> + The openEHR XML format + XML document validation + Study case analysis: EHRCommitter & EMRApp + Activity: generation and processing of openEHR clinical documents + Introduction to openEHR repositories
4. Repositories and Services	<ul style="list-style-type: none"> + Object Relational Mapping for openEHR + Study case analysis: EHRGen & EHRServer + openEHR service interface + Study case analysis: EHRServer REST API + Querying openEHR data

Modality

This course is offered online and on-site for companies, organizations and events. To request a quote please contact info@cabolabs.com

It is also offered online with live/synchronous sessions or on-demand with pre-recorded sessions. This modality works in established periods, generally twice a year. To get notification when the next enrollment period opens, sign to the Waiting List found here: <https://www.cabolabs.com/education>

For the online editions:

- We have a virtual campus with the materials and a forum
- We have a videoconference tool to provide the live online sessions
- All the session are recorded to watch later
- All the materials needed for each module will be available before the correspondent session

Each session has a theoretical introduction to each topic, and practical activities for modeling, code review and execution, and study case analysis of different apps that implement openEHR. All the code will be shared so students can repeat the tests done in class.

Certification

ACHISA y CaboLabs, will emit PARTICIPATION certificates for all the students that sign up to this course.

Trainer

This course is delivered by Pablo Pazos Gutiérrez, who designed the workshop summarizing 12+ years of experience working with openEHR in the healthcare domain.



Bio

Pablo is a Computer Engineer from Uruguay, specialized in the eHealth domain. Director of CaboLabs: Health Information Systems, Standards and Interoperability, and creator of the courses delivered through CaboLabs with the support of ACHISA. With 12+ years of experience in eHealth, 500+ trained professionals from 16 countries.

- Computer Engineer degree, Universidad de la República, Uruguay
- Director at [CaboLabs](#) Health Informatics
- Educator at [Asociación Chilena de Informática en Salud](#)
- [openEHR Ambassador for Latin America](#)
- Coordinator at [openEHR community in spanish](#)
- Qualified Member of openEHR's programs (specification, software, localization, education)

**ACHISA supports knowledge dissemination in the Health Informatics discipline,
especially about the available standards and specifications.**

www.CaboLabs.com

Health Informatics, Standards and Interoperability