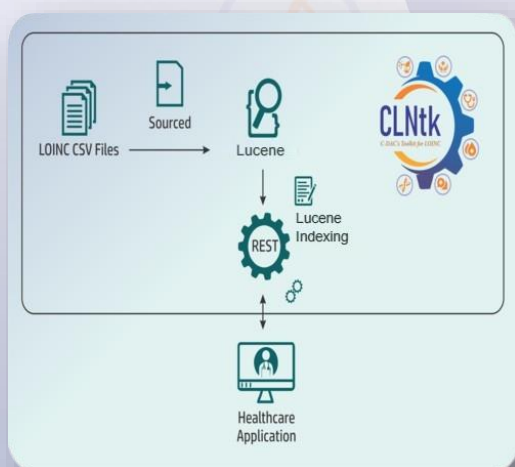# CLNtk
C-DAC's Toolkit for LOINC

C-DAC's Toolkit for LOINC is a specially designed FOSS application for easy access and integration of LOINC standard in health care applications**.** *Logical Observation Identifiers Names and Codes* (LOINC®) is an international standard for laboratory tests, measurement, and observations.

The toolkit enables clinicians and researchers to find relevant LOINC codes from its components including, the long common name, short name, display name, and other related information.

Advantages

- Free & Opensource Software (FOSS) under Apache License v2.0
- Enables quick & easy integration of LOINC standard
- Platform independent technologies
- API Documentation

LOINC is a database and universal standard for identifying clinical information in electronic reports. It provides a set of universal names and identifier codes for identifying laboratory and clinical test results.

LOINC has been recognized and adopted around the world as an international standard for laboratory observations and clinical measurements. It is also recommended for use in EHR Standards for India (2016) guidelines for coding tests, measurement, and observations.

Component/Analyte (E.g., Potassium, Hemoglobin)

Kind of Property (E.g., Mass concentration (mg/L), moles/L, count)

Time Aspect (E.g., Point in time, 24-hour urine)

System (E.g., blood, urine)

Type of Scale (E.g., Quantitative, Ordinal like Positive/Negative, Mild, Moderate)

Type of Method (E.g., Manual count, Spirometry)

Parts of LOINC Name

LOINC CSV Files → Sourced → Lucene → CLNtk

Lucene Indexing

REST

Healthcare Application

CLNtk Architecture

Salient Features

- Ready to call Representational State Transfer (REST) API Layer exposed as Web Service
- Provides Lucene index creation from the LOINC standard CSV files
- RESTFUL API for search, expand panel, lookup. Also, supported APIs to fetch information from LOINC standard
- Supports Lucene based full-text search
- Enables searching with advance search

CLNtk is useful in the integration, validation, and processing of LOINC data for a variety of use cases including:

- Enable LOINC based health records and reports sharing
- Enable integration of standard codes in healthcare applications
- Enable hospitals/clinics in processing and analyzing health records in a standardized manner
- Assist Laboratory Management Systems (LMS) in searching, mapping, and accessing LOINC codes based on multiple parameters referred in laboratory tests (such as component, specimen, test methods, etc.)

C-DAC's Toolkit for LOINC 2.0 OAS 3.0

/loincserv/v3/api-docs

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National Resource Center for EHR Standards - Website
Send email to National Resource Center for EHR Standards

Apache 2.0

API Documentation

CLNtk Usage Scenario

The CLNtk is available under Apache v2.0 Open-Source License that makes the toolkit and source free for use for both personal/commercial environment.

Download: http://cdac.in/index.aspx?id=hi_hs_medinfo_loinc_download   **E-mail: sdk-enq@cdac.in**

प्रगत संगणन विकास केंद्र
CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING