The ICD-11 Framework and its IT systems provided by WHO

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This tutorial aims to equip attendees with the knowledge and resources needed to effectively utilize the International Classification of Diseases (ICD) framework in their respective technological applications. The tutorial will begin with an introduction to the ICD-11's overall architecture, focusing on the “foundation” which is the underlying terminology and the traditional statistical classification that stems from it. The session will then delve into ICD-API and related tools that facilitate the seamless integration of the classification into software systems.

ICD-API is a powerful REST API (Representational State Transfer Application Programming Interface) for software integration, allowing seamless access to ICD-11 content through web services. This HTTP-based API leverages solid, proven technology designed for web applications, offering the benefits of web infrastructure and tools. It is designed to be easy to consumed and technology-independent, meaning it can be utilized from any programming language or platform. The ICD-11 API's multilingual capabilities are particularly noteworthy, supporting multiple languages, with the 2024 release supporting 10 languages and an additional 20 languages in varying stages of completion.

API supports the ICD-11 Foundation and Linearizations such as the Mortality and Morbidity Statistics (MMS) offering access to different releases, ranging from 2024 to 2018. The API uses JSON-LD, a W3C standard for encoding linked data, ensuring interoperability and ease of data integration. The schema incorporates the W3C Simple Knowledge Organization System (SKOS), with domain-specific additions, enhancing the semantic organization of the data.

Searching capabilities within the ICD-11 API are advanced, powering the search functionality used in WHO tools like the ICD-11 Coding Tool and ICD-11 Browser. It offers weighted results, subset searching, post-coordination combination results, and foundation search with classification aggregations.

The ICD-API also features Open API (Swagger) support, facilitating easier implementation and documentation. Its cloud infrastructure is robust, ensuring scalability both vertically and horizontally, and increased availability through redundant deployments. For those preferring local deployment, the API can be deployed in your infrastructure using Docker or directly as a Windows or Linux Systemd service, offering flexibility and control over the integration process. This makes the ICD-API a versatile and indispensable tool for healthcare software solutions, providing a rich set of features for accessing ICD-11.

The Embedded Classification Tools (ECT) are a set of JavaScript/HTML components that can be integrated into any web-based application. Powered by the ICD-API, these tools transform any input field within a web application into a complete Coding Tool with the simple addition of extra attributes. This feature exemplifies the API's ease of integration and user-friendly design.

In summary, the ICD API and its associated tools offer a robust, flexible, approach to software integration. With its multilingual support, adherence to web standards, and powerful search capabilities, it helps you integrating ICD-11 into any software, either deployed in the cloud or locally.