

精準醫療創新應用實驗室

Precision Medical Innovation Application Laboratory

發展健康大數據與精準健康醫療 應用

聯絡方式及網站連結

✉ : cyhsu@ntunhs.edu.tw

🌐 : <https://hsulab.ntunhs.edu.tw>

☎ : (02)2822-7101 轉 1226



Chien-Yeh Hsu (徐建業)



Department of
Information Management



國立臺北護理健康大學
National Taipei University of Nursing and Health Sciences

• 主要研究領域

- 健康醫療數據分析處理與模型建立 + 生物醫學訊號分析處理
- 雲端電子病歷系統及資訊應用
- 醫學健康資料增值應用雲端分析處理與服務
- 健康醫療通信與物聯網

• 主要研究成果

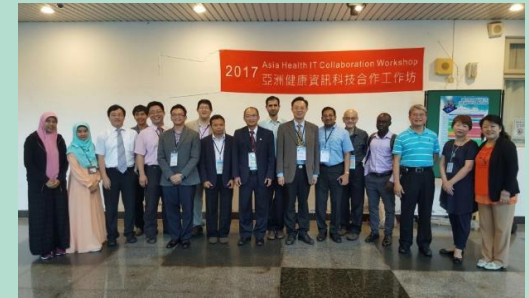
- 人工智慧精準營養飲食管理及資料數位化蒐集平台
- 跨國際區塊鏈之個人健康檔案交換平台
- AI醫療影像分析系統
- COVID-19 全球傳染病監測與病例追蹤模型



精準醫療創新應用實驗室-簡介

• 國際合作研究-研討會及合作

- Taiwan held 2017 Asia Health Information Technology Collaboration Workshop
- 2018 Guidance for Investing in Digital Health and Digital Health Investment Framework Manual
- 2018 Taiwan-AeHIN Health IT International Collaboration Workshop in BKK and MOU
- APAMI 2022 - 12TH Biennial Conference of the Asia Pacific Association for Medical Informatics
- 2023 Global Conference on Digital Health Policy



精準醫療創新應用實驗室-簡介

• 國際合作研究-學海築夢

–104/7/24~104/8/26

India Bhopal

L.N Medical College & J.K.
Hospital

–105/7/11~105/8/29

U.S.A State of Maryland

美國國家衛生院附屬醫學中心 NIH
Clinical Center

–106/7/24~106/8/26

Indonesia

PKU Muhammadiyah Hospital

–107/8/4~107/8/30

Indonesia

PKU Muhammadiyah Hospital

–110/8/1~110/8/31

Manila, Philippines

University of the Philippines
Manila & Standards And
Interoperability Lab (SILAB)

–111/7/30~111/8/30

Manila, Philippines

University of the Philippines
Manila & Standards And
Interoperability Lab (SILAB)



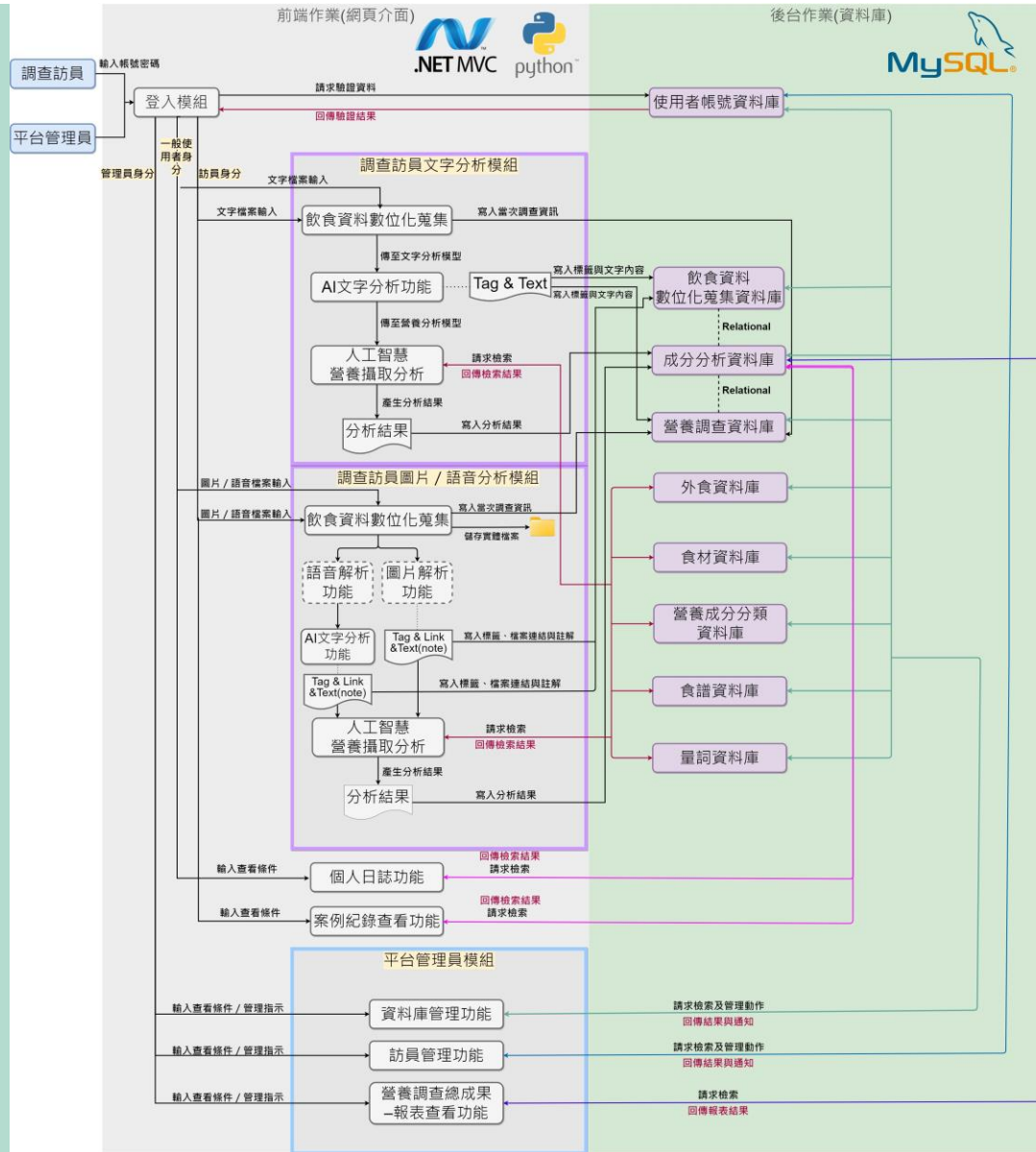
UPM SILab
UP Manila Standards & Interoperability Lab



PhilHealth
Your Partner in Health



人工智慧精準營養飲食管理及資料數位化蒐集平台



人工智慧精準營養飲食管理及資料數位化蒐集平台

飲食資料數位化蒐集

影像 語音(中文) 文字 選擇檔案 沒有選擇檔案

紀錄時間 *

2024/03/08 下午 02:11

早餐 *?

您吃的所有食物、點心、水果、飲料及營養補充劑，紀錄內容中的食物需加上量詞相連(如: 麵高麗菜)則需加上連結詞(如: 和/或/與)、標點符號或是直接換行
範例: 一碗麵高麗菜, 須更正為→ 一碗麵和 一盆高麗菜 / 一碗麵, 一盆高麗菜

午餐 *?

您吃的所有食物、點心、水果、飲料及營養補充劑，紀錄內容中的食物需加上量詞相連(如: 麵高麗菜)則需加上連結詞(如: 和/或/與)、標點符號或是直接換行
範例: 一碗麵高麗菜, 須更正為→ 一碗麵和 一盆高麗菜 / 一碗麵, 一盆高麗菜

晚餐 *?

您吃的所有食物、點心、水果、飲料及營養補充劑，紀錄內容中的食物需加上量詞相連(如: 麵高麗菜)則需加上連結詞(如: 和/或/與)、標點符號或是直接換行
範例: 一碗麵高麗菜, 須更正為→ 一碗麵和 一盆高麗菜 / 一碗麵, 一盆高麗菜

點心 *?

您吃的所有食物、點心、水果、飲料及營養補充劑，紀錄內容中的食物需加上量詞相連(如: 麵高麗菜)則需加上連結詞(如: 和/或/與)、標點符號或是直接換行
範例: 一碗麵高麗菜, 須更正為→ 一碗麵和 一盆高麗菜 / 一碗麵, 一盆高麗菜

飲水量 *

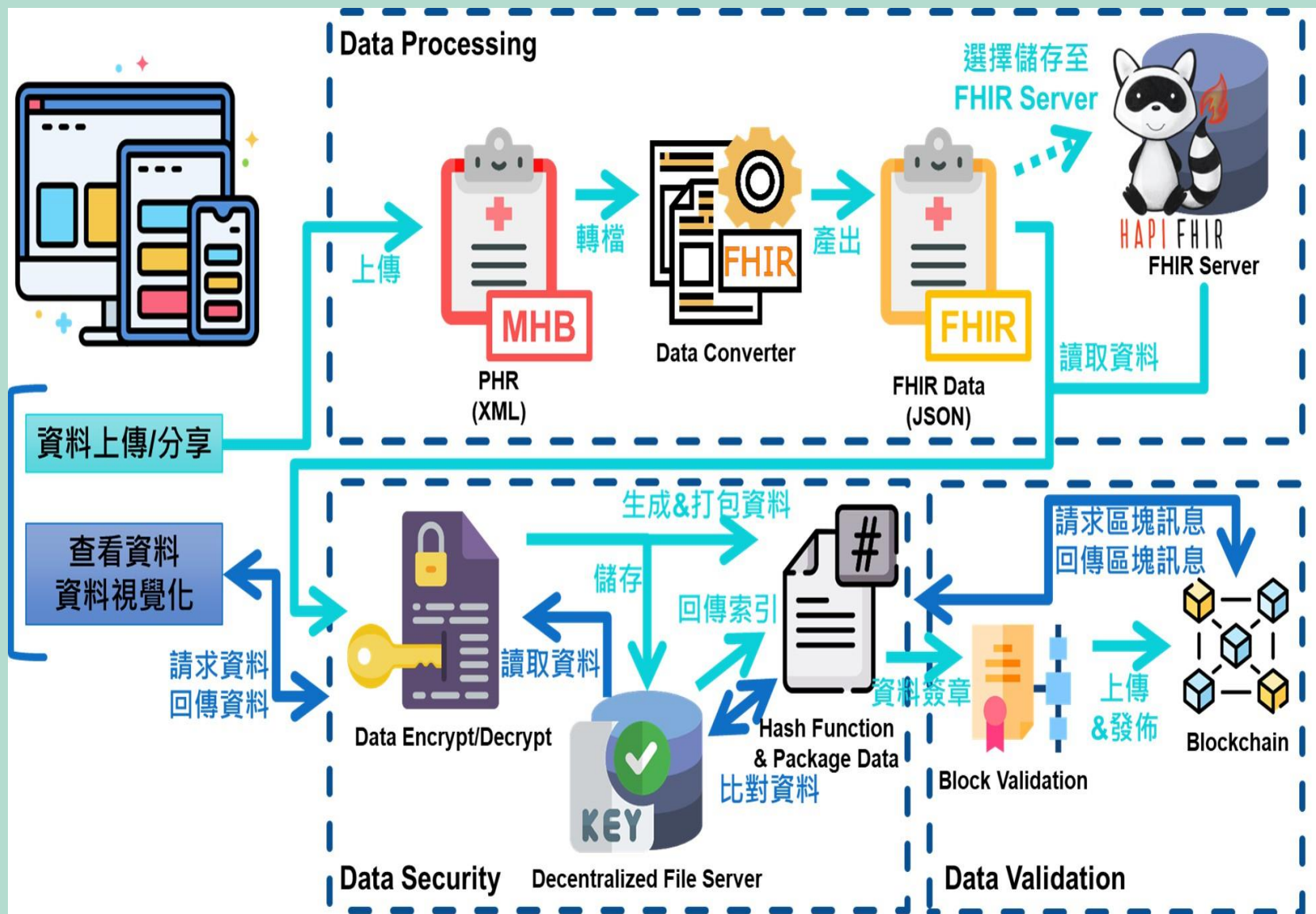
請把您一整天從起床到睡覺的過程中，所有喝得白開水的液體量加起來

送出

快速通關



跨國際區塊鏈之個人健康檔案交換平台



跨國際區塊鏈之個人健康檔案交換平台

The screenshot displays the HYGEA web application interface. On the left is a dark blue sidebar with the HYGEA logo and a menu icon. The sidebar contains sections for 'HOME' and 'APPLICATION', with items like '我的儀錶板', '災害地圖', '空汙地圖', and '健康管理'. The main content area has a white background with a header bar containing two buttons: '我的健康紀錄' (My Health Record) and '他人的健康記錄' (Others' Health Record). Below this, a white card displays a health record entry for '2019-05-23 健康資料'. The entry details include 'Owner : Mary', 'Authorized : Willie', and a note '備註 : 我的健康存摺'. The status is '狀態 : 建立成功 (Success Builded)', with a blue '查看' (View) button. At the bottom of the card are two buttons: '用藥紀錄' (Medication Record) and '檢查紀錄' (Checkup Record). The transaction time is '交易時間 : 2020/3/23 下午 05:23:45'.



跨國際區塊鏈之個人健康檔案交換平台

JOURNAL OF MEDICAL INTERNET RESEARCH

Lee et al

Original Paper

An Architecture and Management Platform for Blockchain-Based Personal Health Record Exchange: Development and Usability Study

Hsiu-An Lee^{1,2,3,4,5}, MS; Hsin-Hua Kung^{2,3,4,5}, BS; Jai Ganesh Udayasankaran^{3,4,6}, MSc, MBA; Boonchai Kijsanayotin^{3,4,7}, MSc, MD, PhD; Alvin B Marcelo^{3,4,8}, MD; Louis R Chao¹, PhD; Chien-Yeh Hsu^{2,3,4,5,9}, PhD

¹Department of Computer Science and Information Engineering, Tamkang University, New Taipei City, Taiwan

²Taiwan e-Health Association, Taipei, Taiwan

³Asia eHealth Information Network, Hong Kong, Hong Kong

⁴Standards and Interoperability Lab, Smart Healthcare Center of Excellence, Taipei, Taiwan

⁵Department of Information Management, National Taipei University of Nursing and Health Sciences, Taipei, Taiwan

⁶Sri Sathya Sai Central Trust, Prasanthi Nilayam, Puttaparthi, India

⁷Thai Health Information Standards Development Center, Health System Research Institute, Ministry of Public Health, Bangkok, Thailand

⁸University of the Philippines, Manila, Philippines

⁹Taipei Medical University Master Program in Global Health and Development, Taipei, Taiwan

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Article

Implement an International Interoperable PHR by FHIR—A Taiwan Innovative Application

Yen-Liang Lee ^{1,2}, Hsiu-An Lee ^{3,4,5,*}, Chien-Yeh Hsu ^{4,5,6,*}, Hsin-Hua Kung ^{4,5} and Hung-Wen Chiu ^{1,*}

¹ Graduate Institute of Biomedical Informatics, Taipei Medical University, Taipei 110, Taiwan; d610101008@tmu.edu.tw

² Internet of Things Laboratory, Chungwa Telecom Laboratories, TaoYuan 326402, Taiwan

³ Department of Computer Science and Information Engineering, Tamkang University, New Taipei 251301, Taiwan

⁴ Standards and Interoperability Lab, Smart Healthcare Center of Excellence, Taipei 112303, Taiwan; hsinhuakung@gmail.com

⁵ Department of Information Management, National Taipei University of Nursing and Health Sciences, Taipei 112303, Taiwan

⁶ Master Program in Global Health and Development, Taipei Medical University, Taipei 110, Taiwan

* Correspondence: billy72325@gmail.com (H.-A.L.); cyhsu@ntunhs.edu.tw (C.-Y.H.); hwchiu@tmu.edu.tw (H.-W.C.)

Abstract: Personal health records (PHRs) have lots of benefits for things such as health surveillance, epidemiological surveillance, self-control, links to various services, public health and health management, and international surveillance. The implementation of an international standard for interoperability is essential to accessing personal health records. In Taiwan, the nationwide exchange platform for electronic medical records (EMRs) has been in use for many years. The Health Level

跨國際區塊鏈之個人健康檔案交換平台

榮獲未來科技突破獎

2018 FUTURETECH Breakthrough Award

- 以「連結居家、社區、診所以及醫院之區塊鏈導向智慧健康構築方案」為題參展 Blockchain-oriented Smart Health Construction Solution that Connects Home, Community, Clinics and Hospitals
- 2018/12/15 FUTURETECH Breakthrough Award from Ministry of Science and Technology
- 完成以區塊鏈架構達到跨區域之病歷交換Blockchain based cross regional medical record exchange
- EMR data is demonstrated by Taiwan' s Health bank data book



跨國際區塊鏈之個人健康檔案交換平台

The screenshot displays the HYGEA web application interface. On the left is a dark blue sidebar with the HYGEA logo and a menu containing 'HOME', '我的儀錶板', 'APPLICATION', '災害地圖', '空汙地圖', and '健康管理'. The main content area features a header with '我的健康紀錄' and '他人的健康紀錄' buttons. Below this, a card displays a record for '2019-05-23 健康資料'. The record details include 'Owner : Mary', 'Authorized : Willie', and a note '備註 : 我的健康存摺'. The status is '狀態 : 建立成功 (Success Builded)', with a '查看' button. At the bottom of the card are '用藥紀錄' and '檢查紀錄' buttons, and the transaction time '交易時間 : 2020/3/23 下午 05:23:45'.

HYGEA

HOME

我的儀錶板

APPLICATION

災害地圖

空汙地圖

健康管理

我的健康紀錄 他人的健康紀錄

2019-05-23 健康資料

Owner : Mary

Authorized : Willie

備註 : 我的健康存摺

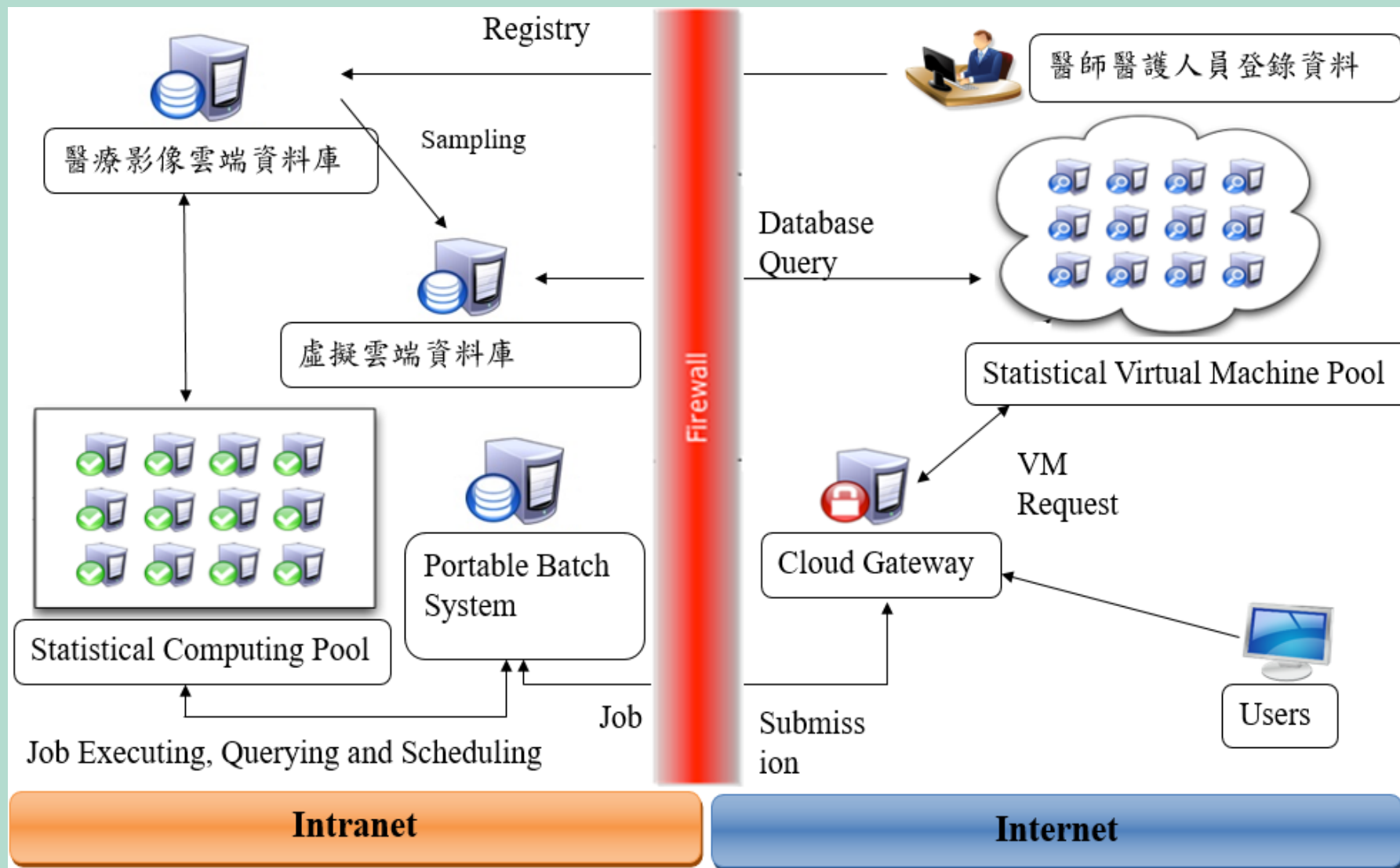
狀態 : 建立成功 (Success Builded) 查看

用藥紀錄 檢查紀錄

交易時間 : 2020/3/23 下午 05:23:45



AI醫療影像分析系統



AI醫療影像分析系統

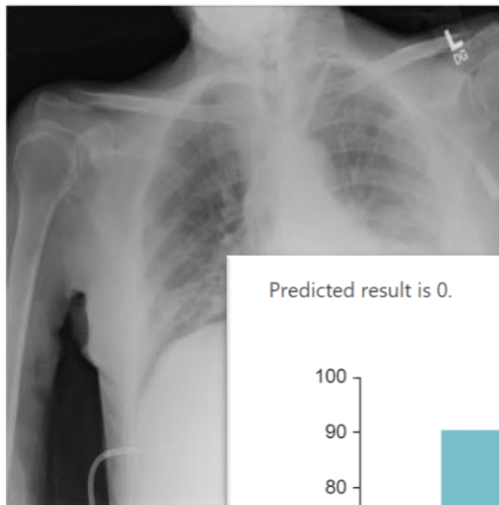
training model

肺纖維化檢測...

請上傳bmp, png, jpg 或 jpeg格式檔案

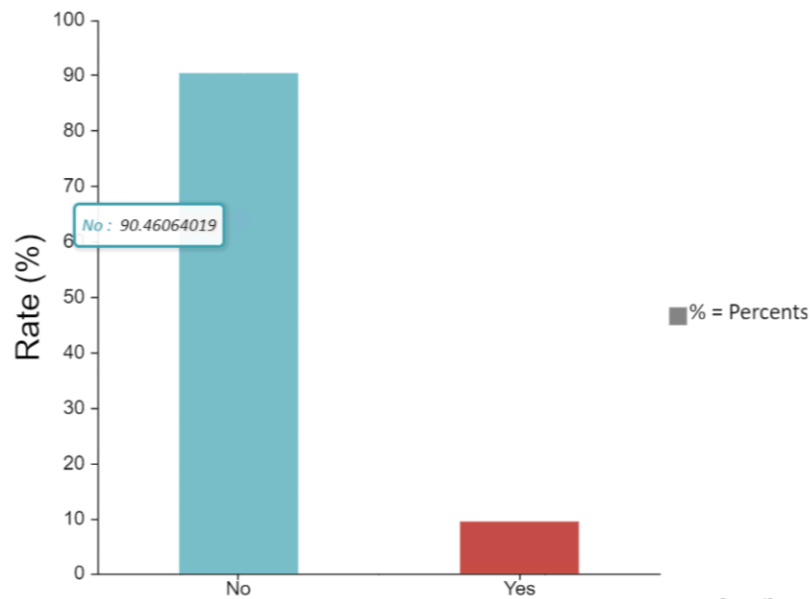
Choose File No file chosen

Submit



Predicted result is 0.

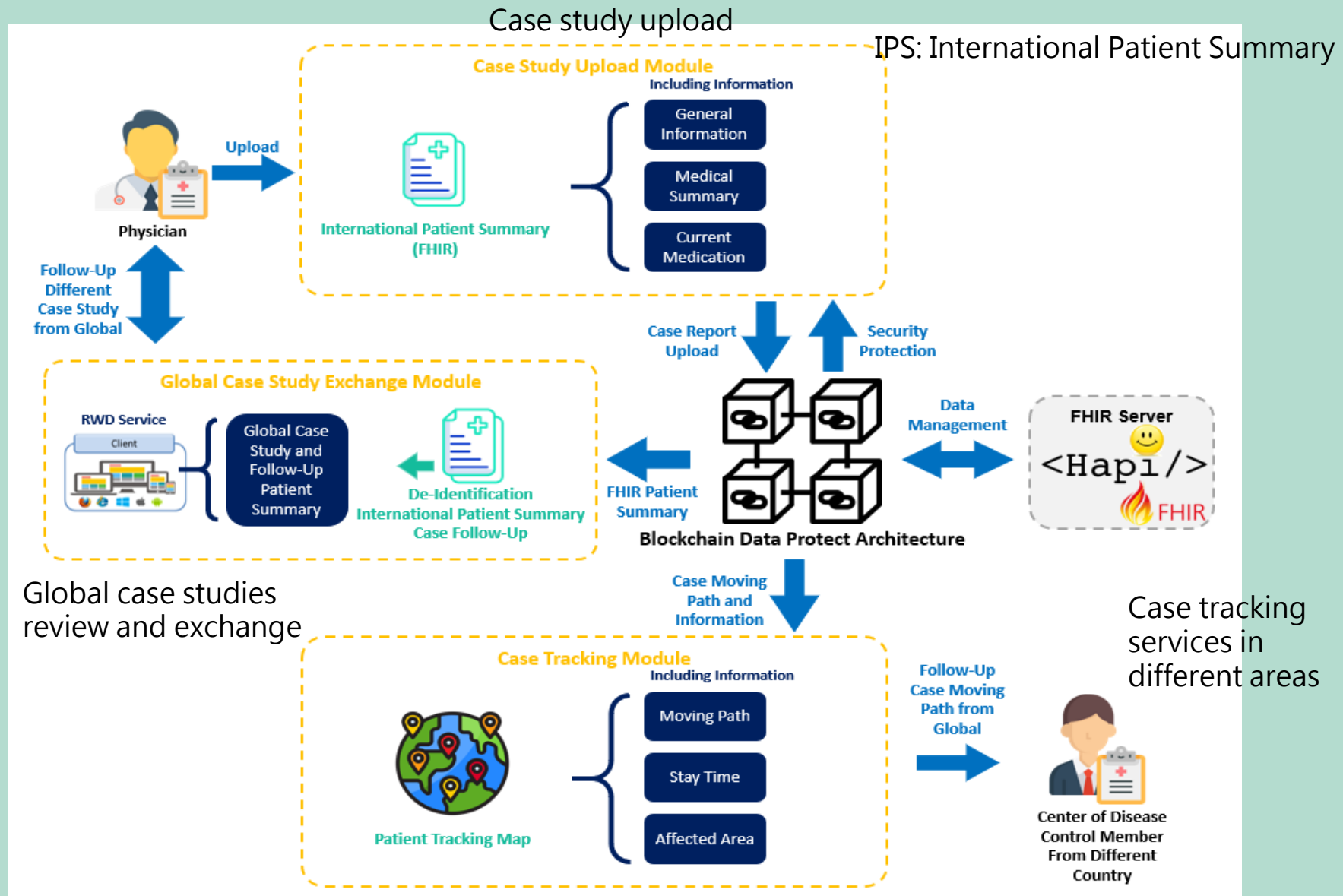
Pridicted Result



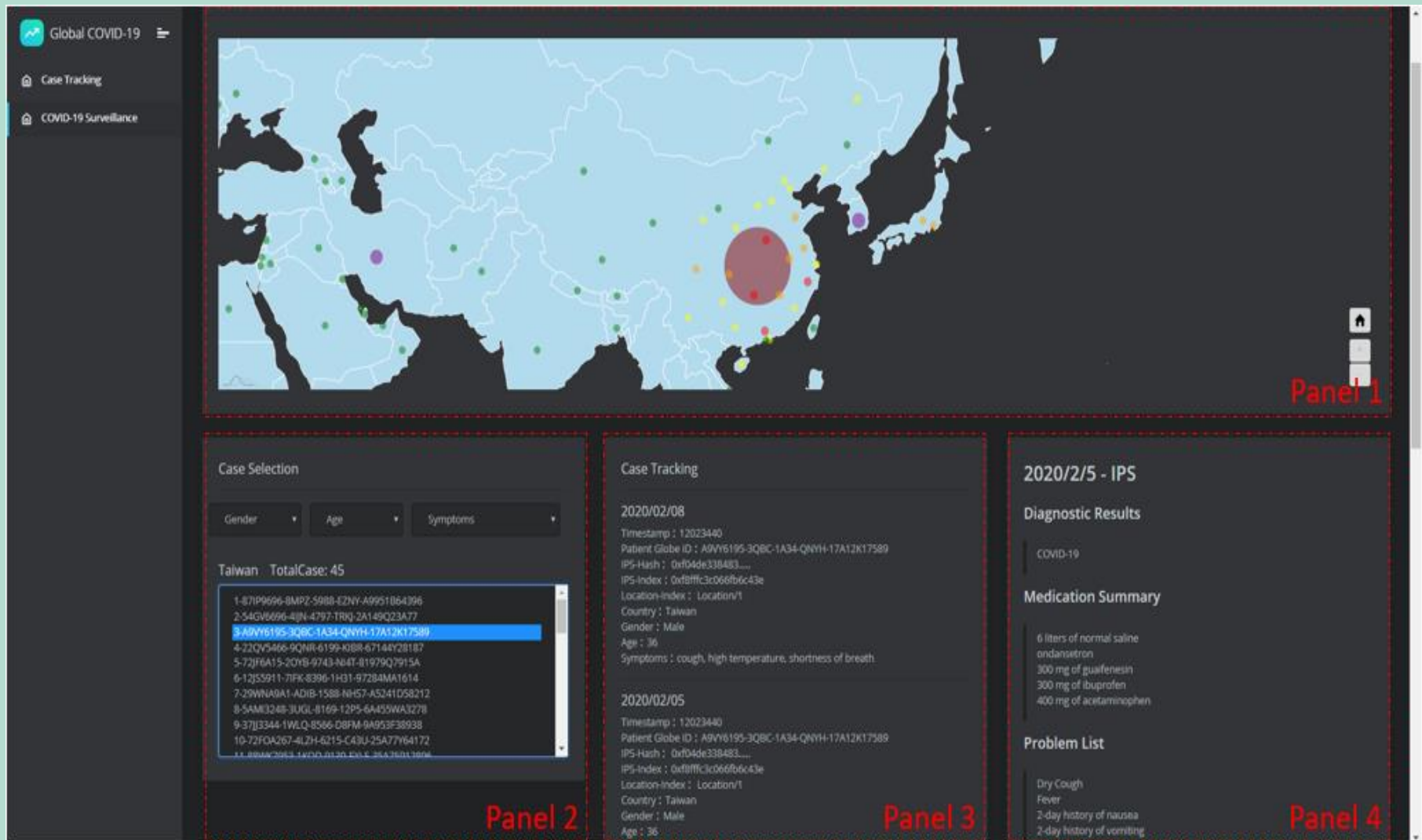
CanvasJS.com



COVID-19 全球傳染病監測與病例追蹤模型



COVID-19 全球傳染病監測與病例追蹤模型



COVID-19 全球傳染病監測與病例追蹤模型

JMIR MEDICAL INFORMATICS

Lee et al

Original Paper

Global Infectious Disease Surveillance and Case Tracking System for COVID-19: Development Study

Hsiu-An Lee^{1,2,3,4,5}, MS; Hsin-Hua Kung^{2,3,4,5}, MS; Yuarn-Jang Lee⁶, PhD; Jane C-J Chao^{7,8}, PhD; Jai Ganesh Udayasankaran^{3,4,9}, MSc, MBA; Hueng-Chuen Fan^{10,11,12}, PhD; Kwok-Keung Ng^{3,13}, BS; Yu-Kang Chang^{10,11}, PhD; Boonchai Kijsanayotin^{3,4,14}, MSc, MD, PhD; Alvin B Marcelo^{3,4,15}, MD; Chien-Yeh Hsu^{2,3,4,5,8}, PhD

¹Department of Computer Science and Information Engineering, Tamkang University, New Taipei, Taiwan

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⁵Department of Information Management, National Taipei University of Nursing and Health Sciences, Taipei, Taiwan

⁶Division of Infection Diseases, Department of Internal Medicine, Taipei Medical University Hospital, Taipei, Taiwan

⁷Nutrition Research Center, Taipei Medical University Hospital, Taipei, Taiwan

⁸Master Program in Global Health and Development, College of Public Health, Taipei Medical University, Taipei, Taiwan

⁹Sri Sathya Sai Central Trust, Prasanthi Nilayam, Puttaparthi, India

¹⁰Department of Rehabilitation, Jen-Teh Junior College of Medicine, Nursing and Management, Miaoli, Taiwan

¹¹Department of Medical Research, Tung's Taichung Metroharbor Hospital, Taichung, Taiwan

¹²Department of Pediatrics, Tung's Taichung Metroharbor Hospital, Taichung, Taiwan

¹³eHealth Research Institute, Hong Kong, Hong Kong

¹⁴Thai Health Information Standards Development Center, Health System Research Institute, Ministry of Public Health, Bangkok, Thailand

¹⁵University of the Philippines, Manila, Philippines

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Collaboration of Medical Information Sharing and Knowledge Exchange

- Taiwan: Standard and Interoperability Lab - Smart Healthcare center of Excellent Taiwan
- Asia eHealth Information Network (AeHIN): Standards and Interoperability Lab - Asia Community of Interoperable Labs (COIL)



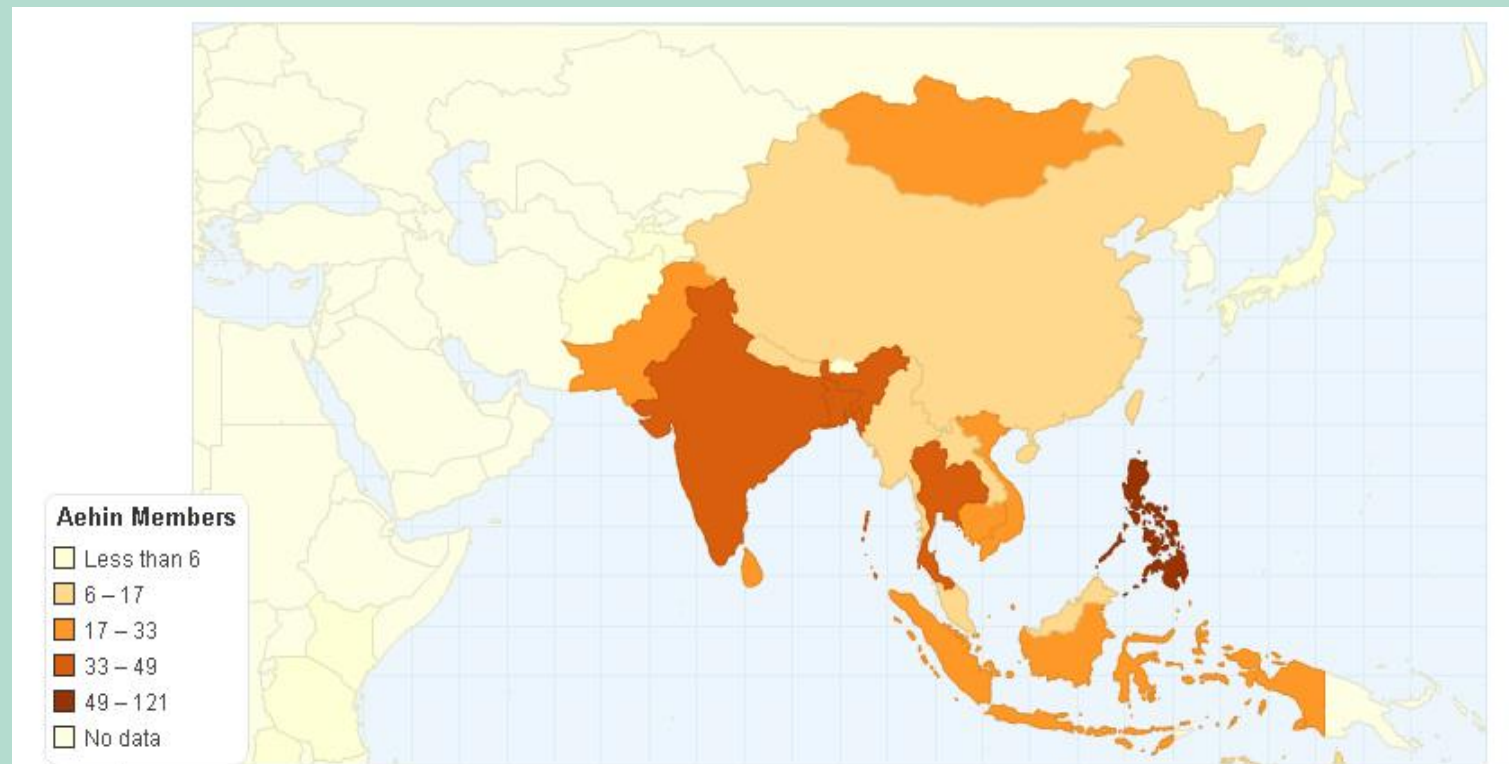
- University of the Philippines Manila
- Asian Development Bank
- National Taipei University of Nursing and Health Sciences
- Taiwan Electronic Health Association - TEHA



亞洲電子健康資訊網絡

The Asia eHealth Information Network , AeHIN

- 透過區域合作、同儕協助(peer-to-peer assistance)及彼此間的知識共享和學習，將資通訊技術 (ICT) 應用於健康照護上
- 目前會員國**台灣**、**菲律賓**、**印度**、**孟加拉**、**泰國**、**斯里蘭卡**、**印尼**、**哥倫比亞**、**蒙古**、**柬埔寨**、**巴基斯坦**及**越南**



2017 Asia Health Information Technology Collaboration Workshop

Mind the GAPS and Fill the GAPS

	Government	Architecture	Programme Management	Standards & Operability
One Year Plan	<ul style="list-style-type: none"> Information system construction planning Expand international cooperation Policy formulation and implementation 	<ul style="list-style-type: none"> Medical information architecture Data processing and collection 	<ul style="list-style-type: none"> Data management center Health insurance planning and implementation 	<ul style="list-style-type: none"> Purchase of international standards for information systems (SNOMED, DICOM) Electronic medical record exchange
Three Year Plans	<ul style="list-style-type: none"> Complete the health insurance plan Promote health management 	<ul style="list-style-type: none"> Information integration is complete Data center establishment Define of integration data 	<ul style="list-style-type: none"> Data processing center Health insurance implementation 	<ul style="list-style-type: none"> Definition of International Data Exchange Standards Integration of regional information and analysis
Need of Taiwan?	<ul style="list-style-type: none"> Health insurance promotes policy and process Medical information integration model My Health Bank book health management model 	<ul style="list-style-type: none"> Data center integration model Experience on health insurance data model 	<ul style="list-style-type: none"> Health insurance promotes policy and implementation Personal health data collation model 	<ul style="list-style-type: none"> Electronic medical record field and structure planning Healthcare Information Architecture
Need from outside?	<ul style="list-style-type: none"> Regional integration The policy of Medical mutual collaboration 	<ul style="list-style-type: none"> Medical Information Exchange Architecture Data exchange center 	<ul style="list-style-type: none"> Integration and analysis of health information Tourism and regional mutual management 	<ul style="list-style-type: none"> Electronic medical records standard Health management platform



Taiwan held 2017 Asia Health Information Technology Collaboration Workshop

2017亞洲健康資訊科技合作工作坊



Taiwan held 2017 Asia Health Information Technology Collaboration Workshop

國際院際合作意向書



FM UGM and NTUNHS MOU, Page 1 of 5



MEMORANDUM OF UNDERSTANDING OF COOPERATION
between
College of Health Technology, National Taipei University of Nursing and Health Sciences (NTUNHS), Taiwan
and
Faculty of Medicine, Universitas Gadjah Mada (UGM), Indonesia

In order to promote cooperation in health science and technology education, educational exchanges and scientific research between **NTUNHS** and **UGM**, the following types of collaboration will be pursued:

- Exchange of students;
- Exchange of visiting research scholars;
- Joint research projects in the field of health sciences and technologies;
- Participation in international conferences, seminars, symposia, workshops and other activities agreed by both parties; and
- Exchange of academic materials and other information.

This Memorandum of Understanding expresses the intentions of the parties and places no financial obligations or supplementary funding commitments on either party. The terms of cooperation for each specific activity contemplated under this Memorandum of Understanding and Cooperation shall be mutually discussed and agreed upon by both parties prior to the initiation of that activity. Each institution shall designate a liaison office to develop and coordinate the specific activities agreed upon.

This Memorandum of Understanding will become effective upon the date of signature by both parties and shall remain valid for a period of five (5) years from the date of the last signature. The understanding may be modified by the written mutual consent of both parties. Either party may terminate it by giving the other party twelve months' written notice, unless an earlier termination is mutually agreed upon.

Each party shall make any public announcement or statement or publish or release any information in relation to any proposed activity or proposed collaboration without the prior written approval of both parties. Each party shall keep confidential any information that it received from the other party which is marked confidential or which a party notifies the other party is confidential.

FM UGM and NTUNHS MOU, Page 2 of 5

Any dispute arises out of this Memorandum of Understanding shall be settled amicably through negotiation or conciliation.

This Memorandum of Understanding is completed in English and is hereby signed in two (2) copies with one (1) copy remaining in the possession of each party.

FOR COLLEGE OF HEALTH
TECHNOLOGY, NATIONAL TAIPEI
UNIVERSITY OF NURSING AND
HEALTH SCIENCES

Kuo-chung Chu

Kuo-Chung Chu, PhD
Dean

Date: 21 Aug 2017

FOR FACULTY OF MEDICINE,
UNIVERSITAS GADJAH MADA

[Signature]

Prof. dr. Ova Emilia, M.Med.Ed., PhD,
Consultant ObGyn ✓
Dean

Date: 14 AUG 2017

Institutional contact persons responsible for discussing this Memorandum of Understanding and acting as liaisons are:

FOR COLLEGE OF HEALTH
TECHNOLOGY, NTUNHS

Name: Dr. Chien-Yeh Hsu
Position: Professor
Department: Information Management
National Taipei University of Nursing and
Health Sciences
No. 365, Mingde Rd., Beitou Dist., Taipei,
Taiwan
TEL: 886-2-28227101 ext. 2210
Email: cyhsu@ntunhs.edu.tw

FOR FACULTY OF MEDICINE, UGM

Name: dr Lutfan Lazuardi, MKes, PhD
Position: Assistant Professor
Department: Health Policy and
Management
Universitas Gadjah Mada
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Yogyakarta 55281, Indonesia
TEL: +62 274 549432
Email: lutfan.lazuardi@ugm.ac.id

FM UGM and NTUNHS MOU, Page 3 of 5

Appendix One

The above Memorandum of Understanding focuses on building a strong and long-term relationship between the Faculty of Medicine Universitas Gadjah Mada (FM UGM) and the College of Health Technology of National Taipei University of Nursing and Health Sciences (NTUNHS)

1.1 Exchange of Students

The exchange of students between the two institutions will be based on the following principles:

● Duration

Undergraduate/graduate students from NTUNHS and undergraduate/graduate students from FM UGM may attend the other institution for up to two (2) semesters. No degree will be conferred on these students by the host institution. In general, students will be expected to undertake a full load of courses at the host institution at a level equivalent to their level at their home institution, and will receive credit at their home institution for a full course load, contingent upon satisfactory performance in all courses. Evaluations of student work will be forwarded from the host institution to the home institution. The number of students to be exchanged will be agreed upon by the parties from year to year with an equal number of students being exchanged within the agreement period.

● Visa/Immigration Requirements

Exchange students are responsible for complying with all visa/immigration requirements, laws and regulations of the host country, including obtaining and maintaining any visas and/or permits needed for participation in the exchange program during the entire term of the exchange program. The host institutions shall bear no responsibility for exchange students who fail to obtain and maintain visas and/or permits or who fail to comply with visa/immigration requirements, laws and regulations of the host country. Each exchange student must keep the host institution informed of any changes in his/her visa status.

● Local Costs/Expenses, Accommodations

Neither party shall be responsible for local costs/expenses. The host institution will assist exchange students in obtaining accommodations to the extent feasible.



2018 Guidance for Investing in Digital Health and Digital Health Investment Framework Manual

2018 本團隊與 AeHIN and ADB(亞洲開發銀行) 合作之數位健康科技投資指南



2018 Taiwan-AeHIN Health IT International Collaboration Workshop in BKK and MOU



Memorandum of Understanding
Partnership of Taiwan E-health Association with Asia eHealth Information Network (AeHIN)
February 2018

Chair of Taiwan e-Health Association and Chair of AeHIN (Asia eHealth Information Network) acknowledge the opportunity for collaboration and establishing partnership to bring about mutual benefits for both parties on capacity building of eHealth in Asia Pacific region. This partnership will contribute to the peer to peer learning and knowledge transfer between Taiwan e-Health Association and AeHIN country members.

Proposed activities / program

Within 3 years after the signed date of this MOU, activities to be achieved, but not limited to, are:

1. Study visit of AeHIN member countries to Taiwan to understand about the lesson learned, challenges and success factors of the My Health Bank and national health insurance implementation in Taiwan.
2. Identifying the AeHIN country members situation on UHC implementation and the capacity to implement personal health record (PHR) based on the administrative data.
3. Signed agreement between both parties regarding three years plan program and activities for knowledge transfer, exchange and pilot activities.

Signatories

Chien-Yeh Hsu
Hsu, Chien-Yeh
Chair, Taiwan eHealth Association
Date: 30 Jan 2018

Boonchai Kijjanayotin
Boonchai Kijjanayotin
Chair, Asia eHealth Information Network
Date: 30 Jan 2018.

Witnessed by AeHIN members :

Alvin Marcelo (Philippines) *Alvin Marcelo*
Anis Fuad (Indonesia) *Anis Fuad*
Aye Aye Sein (Myanmar) *Aye Aye Sein*
Crispinita Valdez (Philippines) *Crispinita Valdez*
Fazilah Shaik Allaudin (Malaysia) *Fazilah Shaik Allaudin*
Thet Thet Mu (Myanmar) *Thet Thet Mu*
Wanchana Ponthongmak (Thailand) *Wanchana Ponthongmak*
Panu Looareesuwan (Thailand) *Panu Looareesuwan*
Lee, Hsiu-An (Taiwan) *Lee, Hsiu-An*



國際合作 – APAMI 2022 in Taiwan



APAMI 2022 - 12TH Biennial Conference of the Asia Pacific Association for Medical Informatics

2022-10-14~2022-10-16

medical intelligence with
interoperability and standards



Organized by Taiwan Association
of Medical Informatics

 <https://apami2022.tw>



國際合作 – 數位健康政策國際系列會議

Global Conference on Digital Health Policy
2023-11-28~2023-11-29

系列一：亞太醫學資訊創新年度高峰會-多元性、公平與包容性

系列二：2023台灣- AeHIN亞洲醫療資訊技術合作研討會-世界衛生組織數位健康策略國際標準與全球互通性

系列三：數位健康生態系、服務提供與數位轉型



 https://silcoet.ntunhs.edu.tw/International_Conference

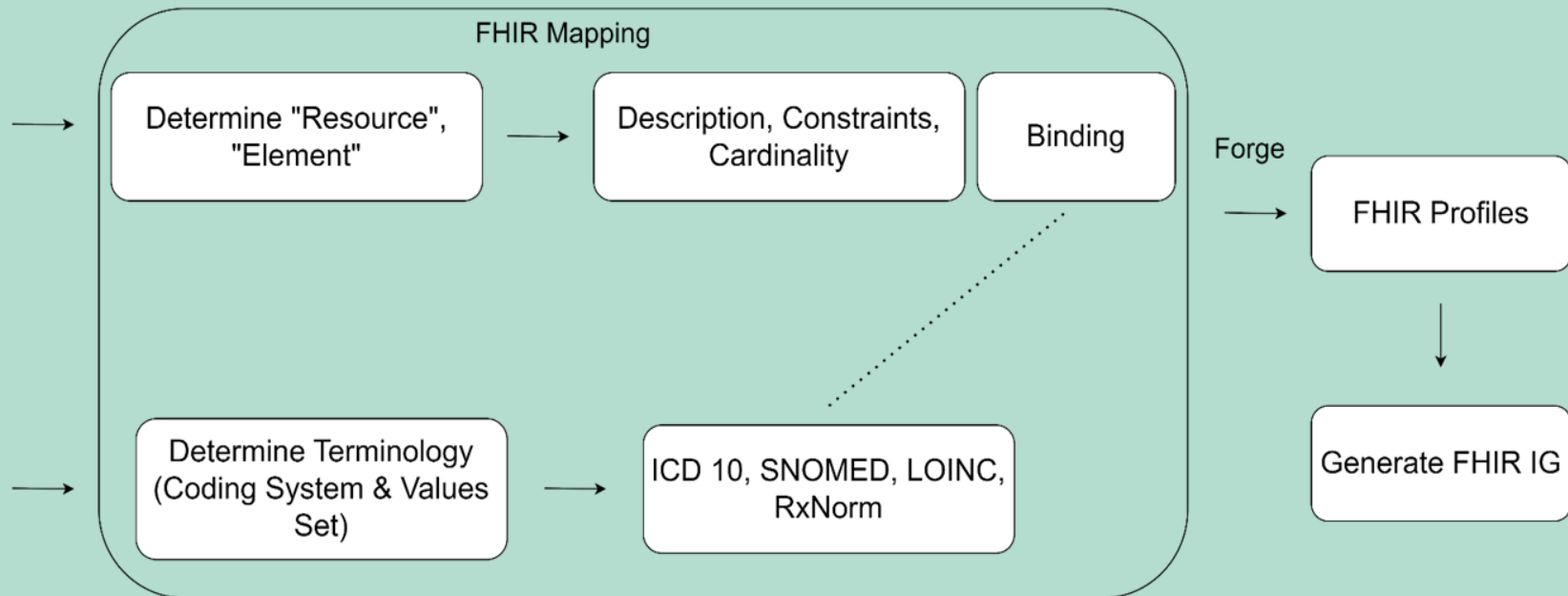


國際合作－學海築夢(111學年度 菲律賓)



國際合作 - 學海築夢(111學年度 菲律賓)

Create CF4 FHIR Implementation Guide - Flow Chart



國際合作 – 學海築夢(111學年度 菲律賓)

Create CF4 FHIR Implementation Guide – Page Display

Claim Form 4 Implementation Guide(CF4 IG)

1.0.0 - CI Build

[Home](#) [Table of Content](#) [CF4 Profiles](#)

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Claim Form 4 Implementation Guide(CF4 IG) - Local Development build (v1.0.0). See the [Directory of published versions](#)

1 Home

Official URL: <https://standard-interopability-lab.com/fhir/ImplementationGuide/CF4>

Version: 1.0.0

Active as of 2023-08-07

Computable Name: CF4 IG

1.1 Overview

The CF4 Implementation Guide (CF4 IG) was developed using the HL7® FHIR® standard. Building upon the founda FHIR R4.0.1 and FHIR IPS 1.1.0(International Patient Summary) standards, it further defines resources custom data exchange between healthcare providers and insurance organizations.

The website architecture diagram of CF4 IG is shown in the figure below. Each function is described as follows:

• [Overview](#)

3.31.1.1 Formal Views of Profile Content

[Description of Profiles, Differentials, Snapshots and how the different presentations work](#)

Differential Table












Key Elements Table

Snapshot Table

Statistics/References

All

This structure is derived from [Organization](#)

Name	Flags	Card.	Type	Description & Constraints
 Organization		0..*	Organization	A grouping of people or organizations with a common purpose
 identifier		1..*	Identifier	Identifies this organization across multiple systems
 value		1..1	string	The value that is unique.[CF4.Accreditation Number]
 name		1..1	string	Name used for the organization.[CF4.Name of HCI]
 address		1..*	Address	An address for the organization
 text		1..1	string	Text representation of the address.[CF4.Address of HCI]



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Create CF4 Example

5. Physical Examination continued (Pertinent Findings per System)

CHEST/LUNGS: Essentially normal Asymmetrical chest expansion Decreased breath sounds Wheezes
 Lump/s over breast(s) Rales/crackles/rhonchi Intercostal rib/clavicular retraction
 Others: _____

CVS: Essentially normal Displaced apex beat Heaves and/or thrills Pericardial bulge
 Irregular rhythm Muffled heart sounds Murmur
 Others: _____

ABDOMEN: Essentially normal Abdominal rigidity Abdomen tenderness Hyperactive bowel sounds
 Palpable mass(es) Tympanic/dull abdomen Uterine contraction
 Others: _____

GU (IE): Essentially normal Blood stained in exam finger Cervical dilatation Presence of abnormal discharge
 Others: _____

SKIN/EXTREMITIES: Essentially normal Clubbing Cold clammy skin Cyanosis/mottled skin
 Edema/swelling Decreased mobility Pale nailbeds Poor skin turgor
 Rashes/petechiae Weak pulses
 Others: _____

NEURO-EXAM: Essentially normal Abnormal gait Abnormal position sense Abnormal/decreased sensation
 Abnormal reflex(es) Poor/altered memory Poor muscle tone/strength Poor coordination
 Others: _____

IV. COURSE IN THE WARD (Attach photocopy of laboratory/imaging results) Check box if there is/are additional sheet(s).

Date	DOCTOR'S ORDER/ACTION
Apr. 02, 2023	Blood test : hemoglobin = 13 g/dL
Apr. 02, 2023	Blood test : platelet count = 243,10 10 ⁹ /L
Apr. 02, 2023	BP 160/80
Apr. 02, 2023	BP 160/100
Apr. 03, 2023	BP 165/95
Apr. 03, 2023	BP 165/85
Apr. 04, 2023	BP 162/85
Apr. 04, 2023	BP 168/78

SURGICAL PROCEDURE/RVS CODE (Attach photocopy of OR technique):

V. DRUGS/MEDICINES Check box if there is/are additional sheet(s).

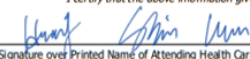
Generic Name	Quantity/Dosage/Route	Total Cost	Generic Name (cont)	Quantity/Dosage/Route (cont)	Total Cost (cont)
Iosartan	20 tablets/ 50 mg / oral	500			
Metformin	20 tablets/500 mg /oral	600			

VI. OUTCOME OF TREATMENT

IMPROVED HAMA EXPIRED ABSCONDED TRANSFERRED Specify reason: _____

VII. CERTIFICATION OF HEALTH CARE PROFESSIONAL

Certification of Attending Health Care Professional:
 I certify that the above information given in this form, including all attachments, are true and correct.

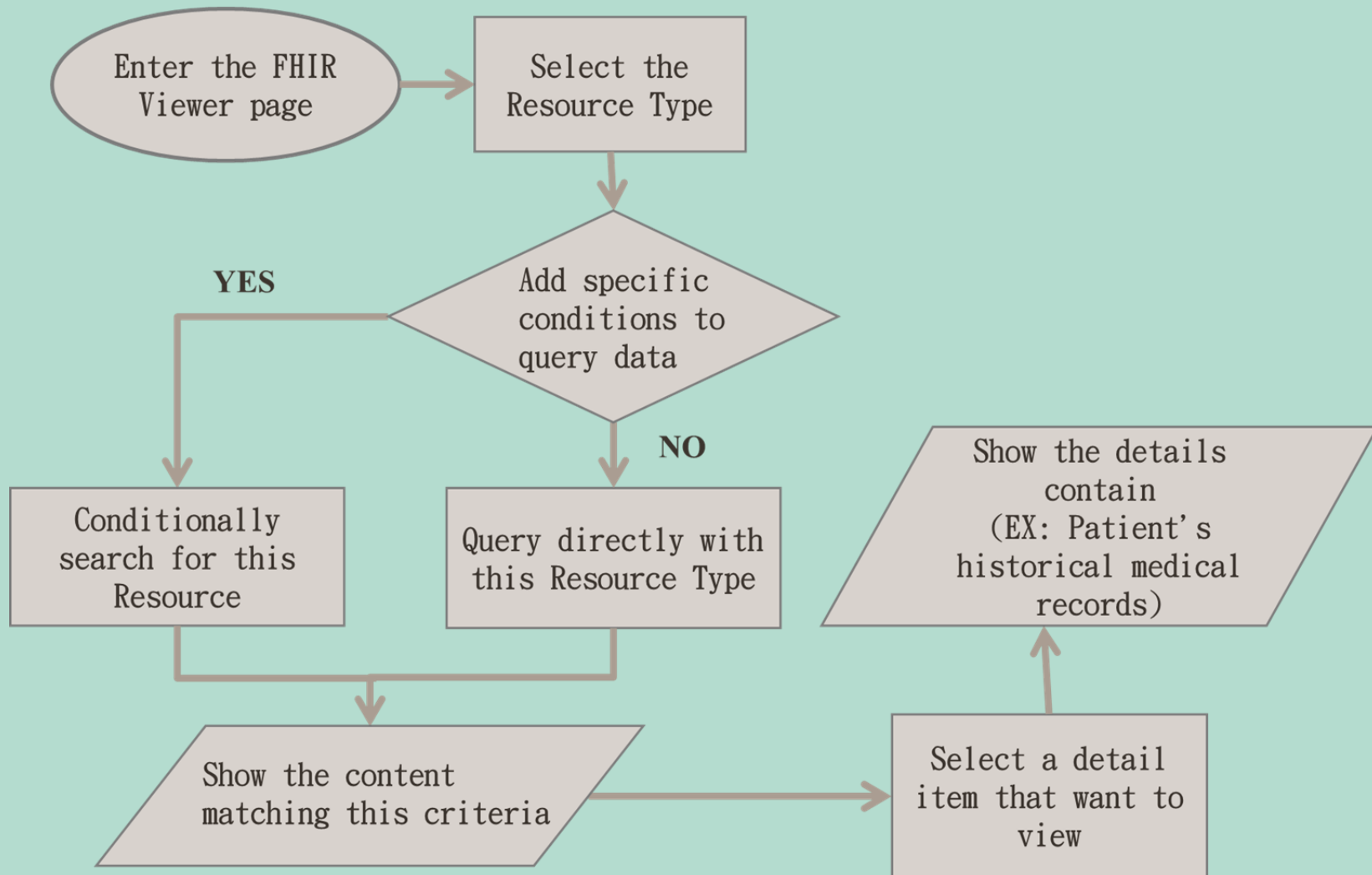

 Signature over Printed Name of Attending Health Care Professional

04 / 24 / 2023
 month day year
 Date Signed



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Example FHIR Application Scenarios - Flow Chart



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Example FHIR Application Scenarios - Page Display

The screenshot displays an FHIR application interface. On the left is a dark sidebar with a logo and the text "MI - FHIR" and "HOME". The main area shows a vertical list of resources, each with a colored box and a circular indicator. A tooltip for the purple circle shows "identifier : A1234567" and "FHIR ID:CF4-pat".

Resource Type	FHIR ID	Timestamp
Composition	CF4-com	AM 11:49 8/26/2023 11:49:36 AM
Organization	CF4-org	AM 11:49 8/26/2023 11:49:36 AM
Observation	CF4-age	AM 11:49 8/26/2023 11:49:36 AM
Condition	CF4-CC	AM 11:49 8/26/2023 11:49:36 AM
Condition	CF4-AD	AM 11:49 8/26/2023 11:49:36 AM
Condition	CF4-DD	AM 11:49 8/26/2023 11:49:36 AM
Encounter	CF4-enc IMP	AM 11:49 8/26/2023 11:49:36 AM

The right panel shows a detailed view of a "Bundle (ID:74644)".

Information

identifier	https://www.philhealth.gov.ph/ Bundle_CF4
type	document
timestamp	2023-01-04T13:01:56+08:00

entry

Composition

status	final
title	CF4
type	http://loinc.org 11503-0 Medical records Discharge Summary from Responsi
subject	Patient/CF4-pat
Date Signed	2023-04-24
author	Practitioner/CF4-pra
section	HEALTH CARE INSTITUTION (HCI) IN Organization/CF4-org

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國際合作 – MedInfo2025



The Taipei International Convention Center (TICC),
Taipei, Taiwan
9 – 13 August 2025



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