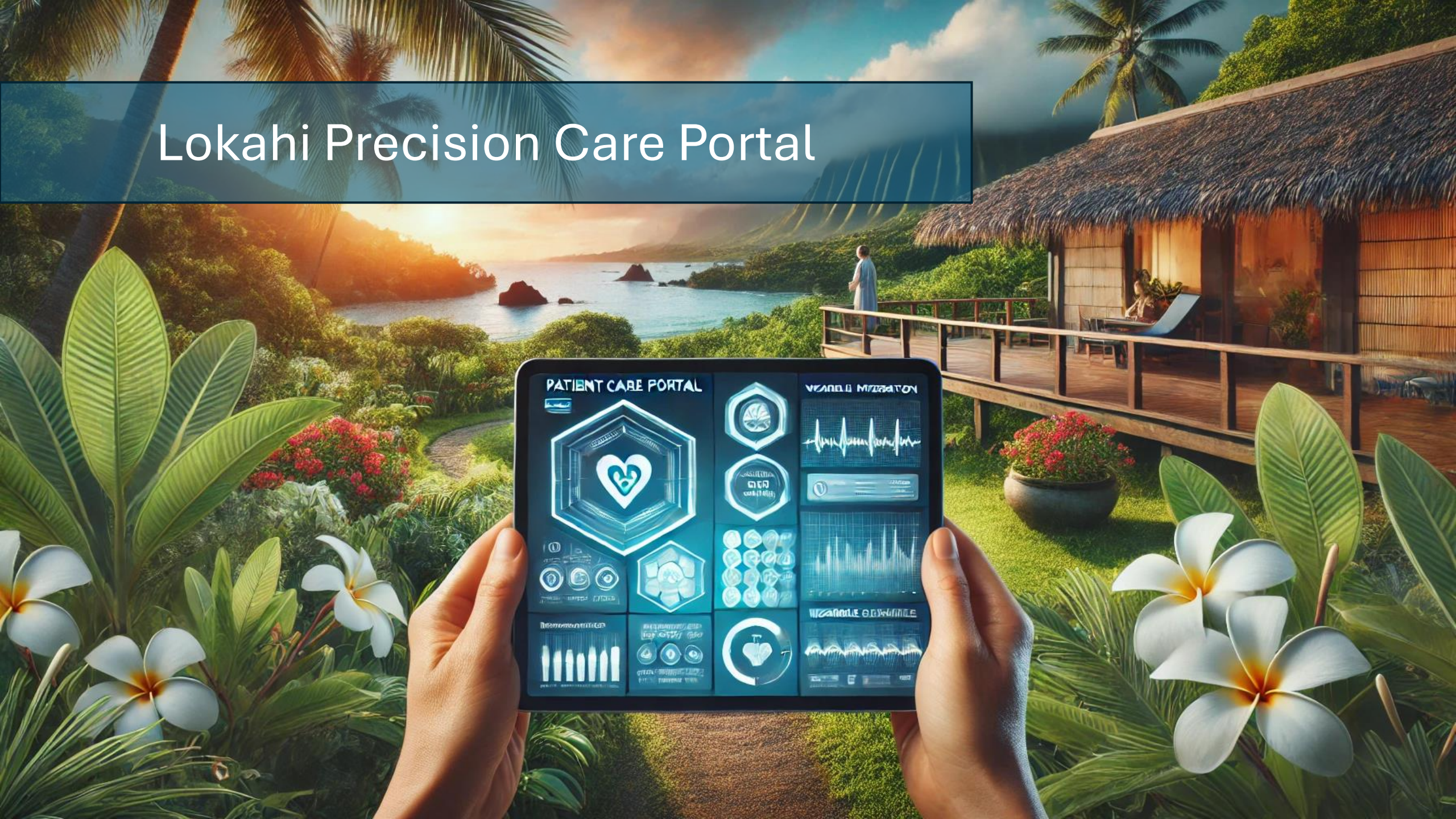
Lokahi Precision Care Portal



Lokahi Precision Care Portal

The Lokahi Precision Care Portal unifies patient care, monitoring, and billing, by leveraging synthetic data, wearables, and agentic technology to deliver personalized insights and remote care, easing Hawaii's strained medical system..

Lokahi Business Case

1. Using synthetic modeling, develop a seamless and transparent medical insurance program that is fully integrated.
2. Focus specifically on the breast cancer use case.
3. Propose a wearable solution to address chemo brain.
4. Demonstrate a solution for patient interaction using an agentic Clinical Decision Support System (CDSS) for remote patient care.

Project Flow (Use Case Breast Cancer)

1 Lokahi Dataset

Lokahi_Innovation_in_Healthcare_Hackahton

2 Data Exploration

Power BI

Claims_Services

Claims_Provider

Claims_Member

Claims_Enrollment

4

Synthetic Data

3 Breast Cancer (Use Case)

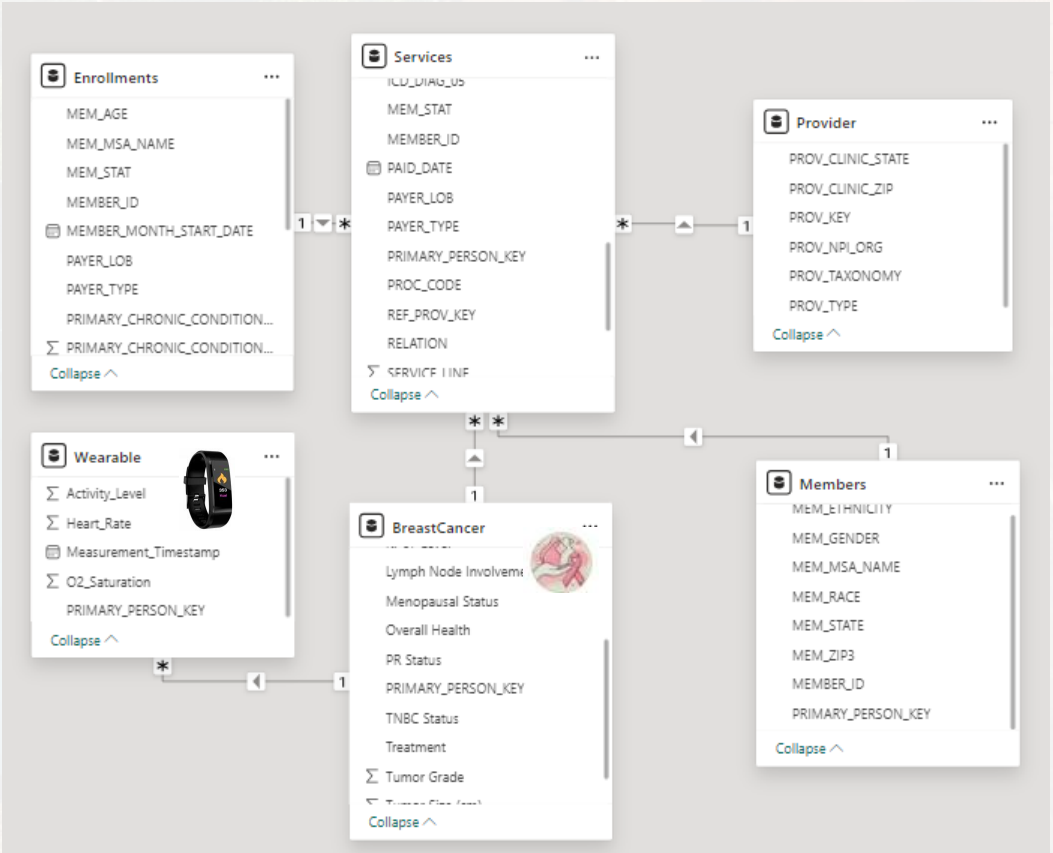
Wearable
(Chemo brain)

+

Patient Talk

5 Implement Solutions

6 Seamless/Transparent Star Schema



The Lokahi Application

app

Lokahi Data

Wearable Data

Breast Cancer Data

Treatment Model

Patient Talk

https://huggingface.co/spaces/eaglelandsonce/Lokahi_Solutions

+

app

Lokahi Data

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Lokahi Synthetic Medical Data Generator

Number of Breast Cancer Patients to Generate

100

10 1000

Measurements per Patient (Wearable Data)

10

1 100

Number of Services to Generate

500

10 2000

Number of Providers to Generate

100

10 500

app

Lokahi Data

Wearable Data

Breast Cancer Data

Treatment Model

Patient Talk

Wearable Data Generator

Number of Patients

40 − +

Measurements per Patient

10 − +

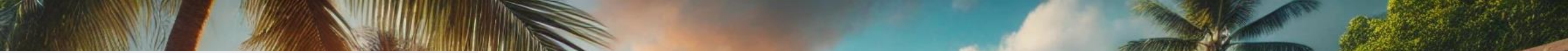
Start Date

2024/12/01

Start Time

08:00

This tool generates mock wearable data for patients, some of whom have cancer and may exhibit signs of chemo brain.



app

Lokahi Data

Wearable Data

Breast Cancer Data

Treatment Model

Patient Talk

Synthetic Data Generator: Clean and Fuzzy (Noisy)

This app generates synthetic breast cancer patient data and provides downloads for both clean and fuzzy datasets.

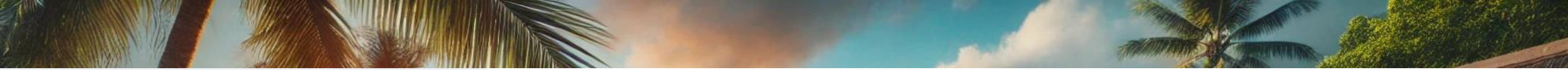
Number of Patients to Generate

100 − +

Generate Data

Perfect Data

	Patient ID	Age	Menopausal Status	Tumor Size (cm)	Lymph Node Involvement	Tumor Grade	Tu
0	1	64	Post-menopausal	1.88	Negative	2	I
1	2	55	Post-menopausal	2.64	Positive	2	III



app

Lokahi Data

Wearable Data

Breast Cancer Data

Treatment Model

Patient Talk

Patient Treatment Prediction App

Upload patient data to train a model and predict treatments based on input data.

Upload a CSV file for training

Drag and drop file here

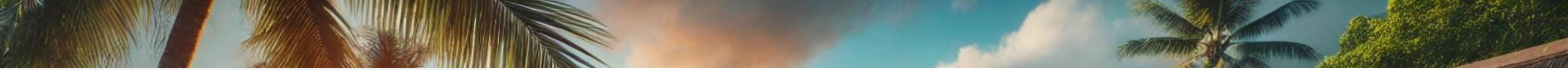
Limit 200MB per file • CSV

Browse files

Using default training data.

Training Dataset Preview:

	Patient ID	Age	Menopausal Status	Tumor Size (cm)	Lymph Node Involvement	Tumor Grade	Tur
0	1	64	Post-menopausal	1.88	Negative	2	I
1	2	55	Post-menopausal	2.64	Positive	2	III
2	3	74	Post-menopausal	1.8	Positive	2	III
3	4	53	Post-menopausal	1.74	Negative	2	I



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app

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Patient Talk

By Michael L Lively

Breast Cancer Swarm Analysis. For Patient ID, input a number 1 to 1000.

Start

Team

Patient Talk

Click here to visit the app

Lokahi Conclusion

The Lokahi Precision Care Portal redefines healthcare by offering a seamless, integrated solution that unifies patient care, monitoring, and billing. Designed to alleviate the strain on Hawaii's overburdened medical system, the portal focuses on breast cancer patients, leveraging synthetic data, wearables, and agentic technology to deliver personalized, real-time insights and remote care management.

Lokahi Thanks to the Team

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