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DaktariHub: A web-based Django project that allows doctors to manage clients and health programs

Project objectives

The project aims to implement the following features:

- ✓ Client management feature (for client registration and enrollment)
- ✓ Programs management feature (for registration and enrollment)
- ✓ Clients information API

Beneficiaries : Doctors

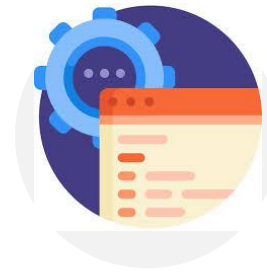
Solution:



Client
Registration



Client info search &
Access (Using API)



Health Programs
registration



Client enrollment to
programs

Methodology

Approach: Agile methodology

Why Agile?

- ❖ Need for continuous improvement on DaktariHub.
- ❖ Flexibility and adaptability
- ❖ Better risk management
- ❖ Faster delivery of feedback and value

Tools



Frontend

- ❖ HTML
- ❖ Vanilla JS
- ❖ CSS
- ❖ Bootstrap



Database

- ❖ SQL
- ❖ Db Sqlite3



Backend

- ❖ Django



Other tools

- ❖ Restful API
- ❖ VS code IDE
- ❖ Figma (UI designs)
- ❖ Github



DaktariHub

Development Process



Planning & Requirements gathering



System Design(Input, output & Process Design)



System development(Coding)



System Testing



System deployment
([Pythonanywhere.com](https://pythonanywhere.com))

System design: Inputs

Systems input designs involved creating design forms that would visualize how data was input into the system.

The forms include :

- ✓ Client registration form
- ✓ Program registration form and
- ✓ Client enrollment (To program) form

The image on the side captures a client registration form design for DaktariHub.

The image shows a digital form for registering a new client. At the top, the title 'Register new client' is displayed in a pink font. Below the title, there are six input fields arranged vertically: 'First Name', 'Surname', 'Email', 'Phone Number', 'Gender', and 'Date of Birth'. Each field is represented by a light gray rectangular box. The 'Gender' field includes a small downward-pointing triangle icon on its right side, indicating it is a dropdown menu. The 'Date of Birth' field has a small calendar icon with a plus sign on its right side. At the bottom of the form, there are two rounded rectangular buttons: a pink 'Cancel' button on the left and a pink 'Register' button on the right.

Client registration form input design

System design: Outputs

Systems output designs involved creating design reports that would visualize how data retrieved from the database would be presented in DaktariHub including :

- ✓ Clients/membership reports
- ✓ Available program reports
- ✓ Enrollment reports

Attached below is a enrollment reports design capturing various programs and how many people have enrolled for them .

Program Enrollment Reports


Program Name	Description	Duration	Enrollments
Malaria	Malaria treatment	Ongoing	10
TB	TB Vaccination	Upto 23rd July	8
Measles	Measles Vaccination	Ongoing	5

Programs enrollment report design

SYSTEM IMPLEMENTATION / SOLUTION

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Homepage

 **DaktariHub**

[Home](#) [Clients](#) [Programs](#) [API](#) [Login](#)

Recent Activities

1 day, 16 hours ago
New client registered: Patrick Muraya

1 day, 6 hours ago
New program added: Tuberculosis (TB)

1 day, 6 hours ago
New program added: Malaria

1 day, 16 hours ago
Patrick enrolled in Malaria

Quick Stats

Total Clients: 1

Active Programs: 2


Today's Enrollments: 0

Welcome to DaktariHub

Manage client health programs efficiently with DaktariHub's comprehensive health information system.

[Add Client](#) [View Programs](#)


Quick Access



[Register Client](#)

Add new clients to the health information system


[Go →](#)



[Manage Programs](#)

Create and manage health programs like TB, Malaria, HIV

[Go →](#)



[Enroll Clients](#)


Enroll registered clients to health programs

[Go →](#)

SYSTEM IMPLIMENTATION / SOLUTION


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Clients navigation view

 **DaktariHub**

[Home](#) [Clients](#) [Programs](#) [API](#)

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 Client Management


Add New Client

Search clients by name, ID or phone...


Search

All Genders


Total Clients
1



Active Clients
1




New This Month
1



Client ID	Full Name	National ID	Age	Gender	Contact	Registered	Actions
1	Patrick Muraya	40510631	22 years, 3 months	Male	+254746562189	Apr 25, 2025	View

Program navigation
view

 **DaktariHub**

🏠 Home

👥 Clients

❤️ **Programs**

🔗 API

Login

🔔 Recent Activities

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Total Clients: 1

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Today's Enrollments: 0

❤️ Health Programs

+ New Program

👤 Enroll Client

Search programs...

🔍 Search

Total Programs
2

🏠

Active Programs
2

✅

Total Enrollments
1

👥

Program Name	Description	Duration	Enrollments	Actions
Tuberculosis (TB)	TB Program that is aimed to vaccinate people and ...	Apr 26, 2025 (Ongoing)	0	👁 View
Malaria	Parasitic disease transmitted by mosquitoes causi...	Apr 26, 2025 (Ongoing)	1	👁 View

SYSTEM IMPLEMENTATION / SOLUTION

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API Interface View

The image displays the Swagger UI for the DaktariHub API v1. The interface is clean and modern, with a dark header bar at the top. The Swagger logo is on the left, and the URL `http://127.0.0.1:8000/api/swagger/?format=openapi` is in the center, with an **Explore** button on the right. Below the header, the API title **DaktariHub API v1** is prominently displayed, followed by the base URL and the API description: **API for DaktariHub Health Information System**.

On the left side, there is a **Schemes** dropdown menu currently set to **HTTP**. On the right side, there are three buttons: **Django**, **Patrick**, and **Django Logout**, along with an **Authorize** button with a lock icon.

The main content area features a **Filter by tag** input field. Below it, the **clients** tag is selected, and a list of three endpoints is shown:

- GET** `/clients/` `clients_list` (with a dropdown arrow and a lock icon)
- GET** `/clients/search/` `clients_search` (with a dropdown arrow and a lock icon)
- GET** `/clients/{id}/` `clients_read` (with a dropdown arrow and a lock icon)

At the bottom, there is a **Models** section with a **Program** entry and a right-pointing arrow. A watermark for **Activate Windows** is visible in the bottom right corner.

Conclusion

The development of DaktariHub involved use of various frontend, backend and database tools to implement :

- ❑ Clients registration and management module
- ❑ Program registration and management module
- ❑ Feature for enrollment of clients to various programs
- ❑ API for accessing client information

Future improvement on the system can be done to involve a communication system and payments systems where clients can make their payments .

END