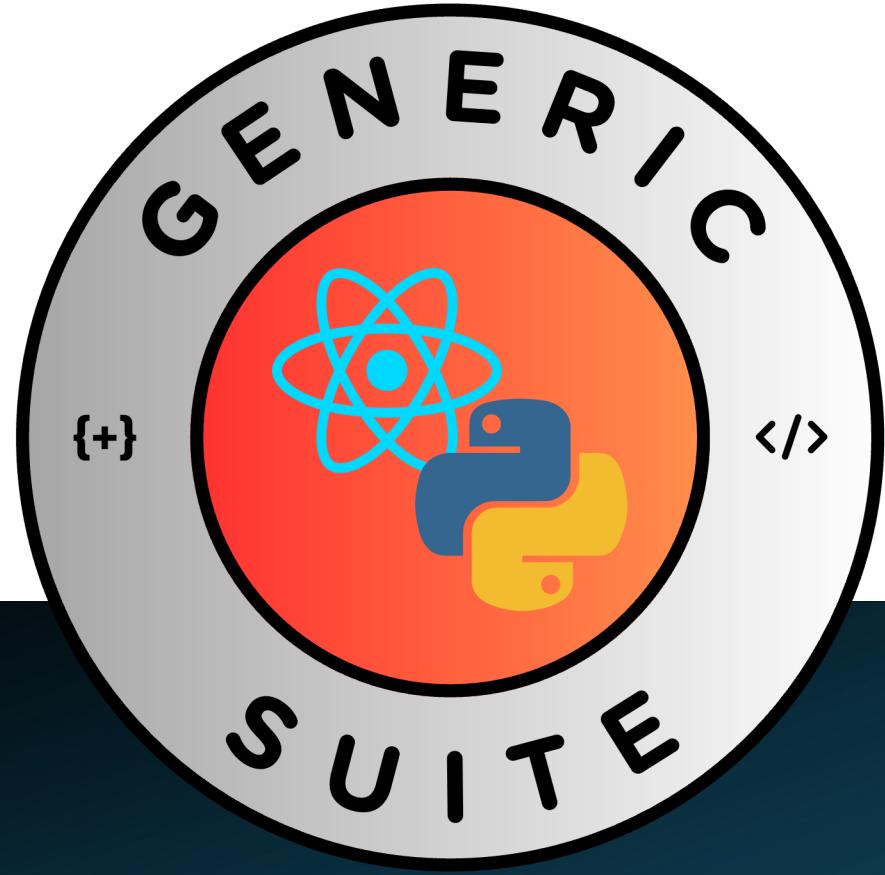


# The GenericSuite Software Library

Exploring the Significance of Generic  
Programming for Innovation in  
Software Development

<https://genericsuite.carlosjramirez.com>



# Presentation



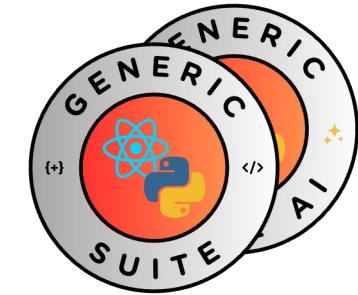
## Carlos J. Ramírez

- Computing Science Diploma, IUNP, Caracas, 1987.
- Started Computer Science Bachelor's Degree, Universidad Alejandro Humboldt, Caracas, 2004.
- Software Engineer @ SourceMeridian.
- 37+ years of experience in Software Development.



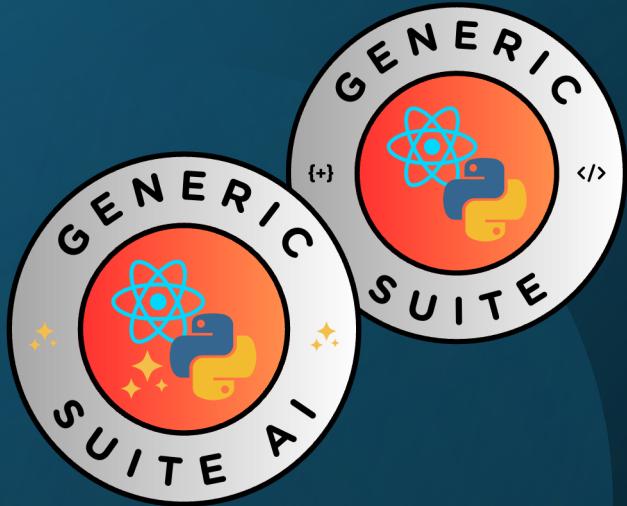


# Content



- [Preamble](#)
- [Motivation, why was it created?](#)
- [Generic Programming](#)
- [Origin of GenericSuite](#)
- [Evolution](#)
- [What does GenericSuite offer?](#)
- [How does GenericSuite work?](#)
- [Key functionalities showcase](#)
- [Tools used](#)
- [Commitment](#)
- [Conclusions / Q&A](#)

# Preamble



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Software development constantly face efficiency and code reuse challenges.

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GenericSuite was designed to streamline Apps development.

---

Framework allows to focus on business logic.

---

Tools to facilitate APIs and UI development.

---

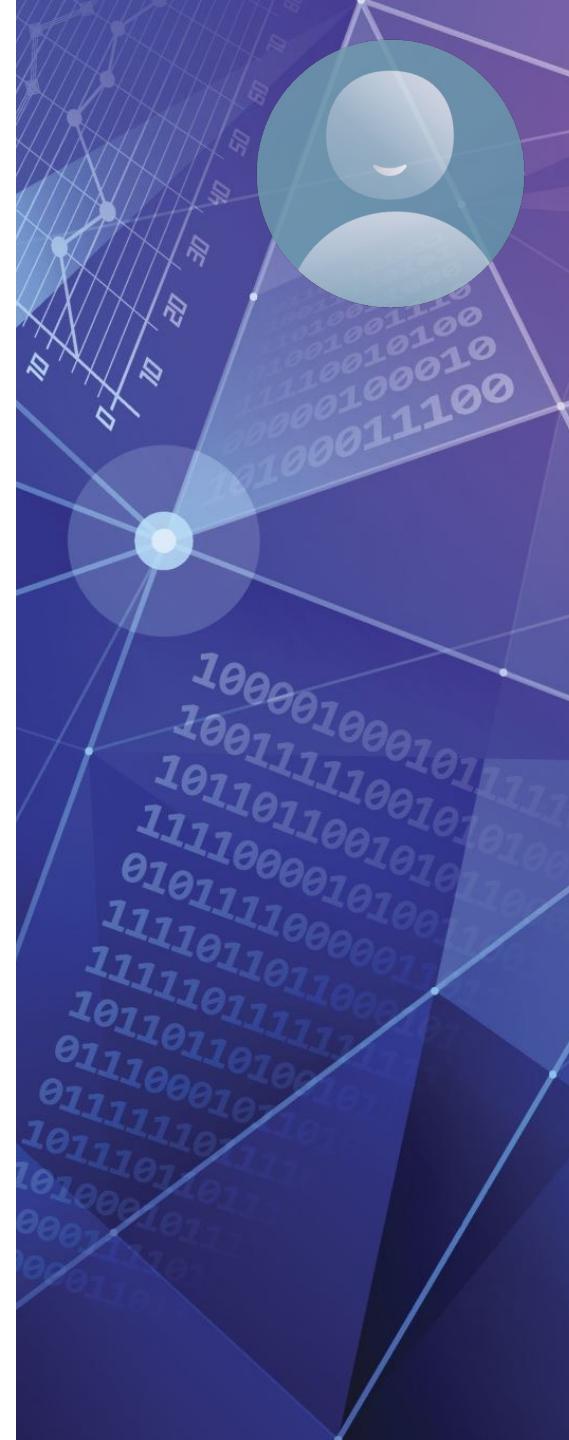
Add AI and RAG\* to Apps.

---

Utilities to facilitate tasks in the software development life cycle (SDLC).

# Motivation: Why GenericSuite was created?

- **Have you ever had to copy and paste code from one application to another?**
- Initially created to avoid code redundancy in my own projects.
- Gain professional experience in Python and React.js.
- Experience the NPMJS and PyPi libraries creation.
- Accelerate application development.

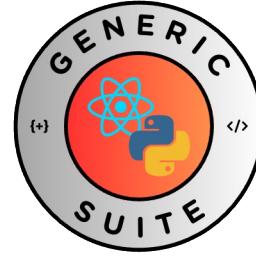


# What's Generic Programming?

- Generic Programming = **make the code parameterizable and reusable.**
- Apply DRY principle (**Don't Repeat Yourself**): minimize redundancy.
- Avoid WET principle (**Write Everything Twice**): e.g. copy and paste code.
- These principles facilitate more efficient and maintainable software development.

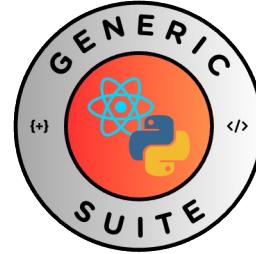
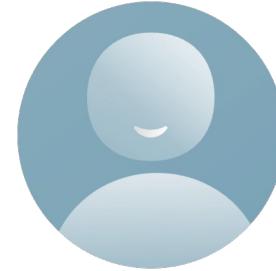


# GenericSuite Origin



- Mid-80s: first contact with the generic CRUD editor concept and other elements generated with generic programming from structured configurations (menu, security, reports).
- I worked in a company that handled these concepts using the trendy languages and databases of the time (Clipper and dBase III), with the configurations stored in the database and generated by a home-made program.
- In my opinion, this concept was way ahead of its time.

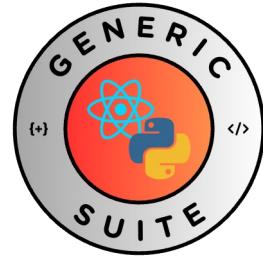
# GenericSuite Origin (2)



- 1999 > 2000: I made a generic CRUD editor with Microsoft ASP (Active Server Pages) for a CMS like WordPress, with the data entry form definitions in the Database.
- 2020: during the pandemic, I created new App called FynApp, and started the generic CRUD editor development in React.js, with the "hard coded" configuration structures in the code.

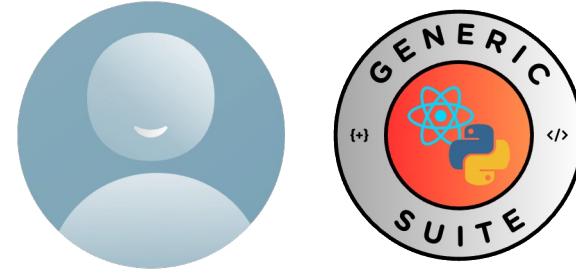


# Evolution



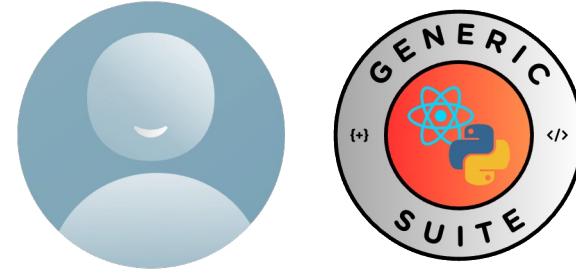
- The emergence of ChatGPT at the end of 2022 and the whole AI boom made me very curious and eager to include some of that in FynApp.
- During PyCon Colombia in June 2023, I came up with the idea of bringing generic programming to the Backend.

# Evolution (2)



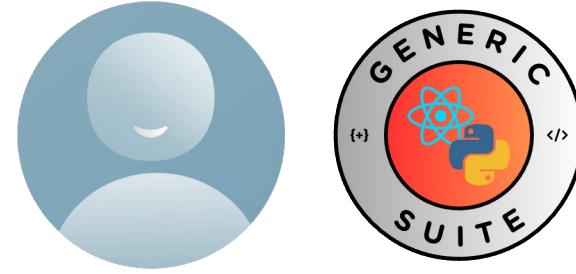
- June 2023: development of generic Backend modules to handle CRUD, automatic generation of Endpoints and Menus with the same Frontend configurations, using JSON files stored in a common repository.
- July 2023: I participated in the Google Vertex AI Hackathon in Lablab.ai and that gave me the ideas to create **FynBot**: the artificial intelligence assistant for FynApp, based on the OpenAI APIs and GPT Functions.

# Evolution (3)



- August > November 2023: Image Generation (Dall-E), Audio (TTS), Image Recognition (Vision).
- Deployment with AWS SAM (Serverless Application Model).
- December 2023: Implementation of LangChain to use any LLM/NLP/Embeddings model and not being tied to a single provider.
- Local DNS and access to the development environment with HTTPS.
- January 2024: Google Gemini and Hugging Face are included in the model offering.

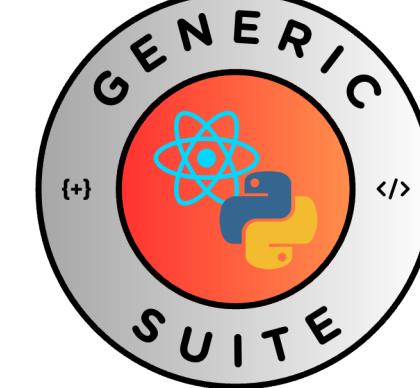
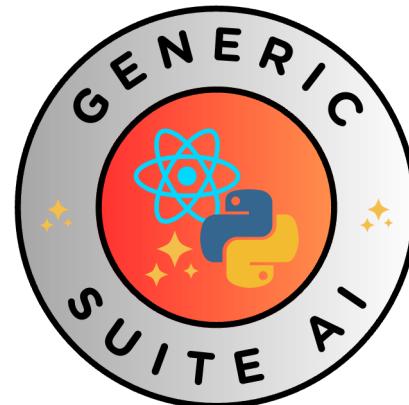
# Evolution (4)



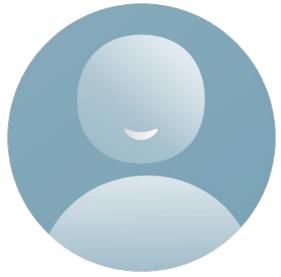
- February 2024: Extraction of generic programming from FynApp. GenericSuite was born.
- The first version was published at the beginning of March 2024 and the functional libraries were published in NPMJS and PyPi in April 2024.
- This is the first formal contribution I've made to the Open-Source community.

# What does GenericSuite offer?

- GenericSuite Core:
  - Frontend
  - Backend
  - Scripts

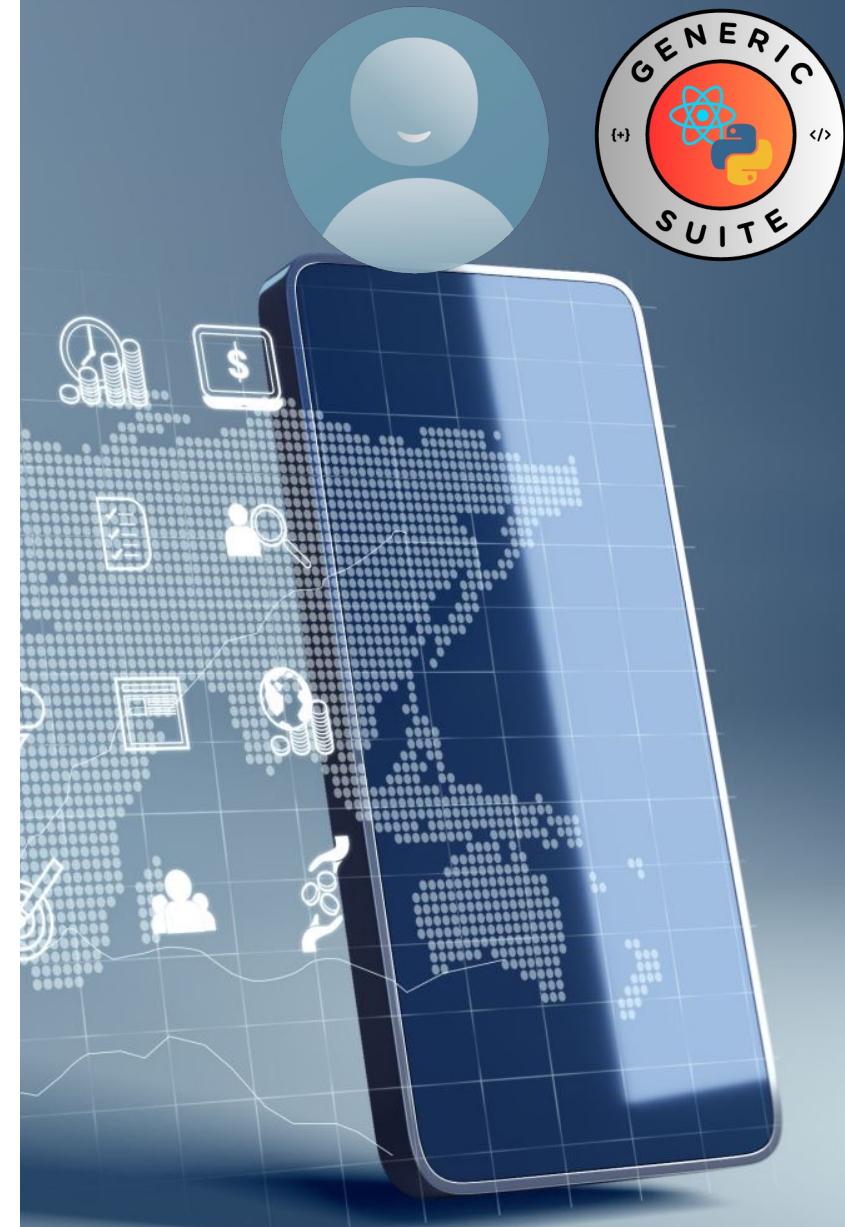


- Extensions:
  - AI (RAG, LLM, NLP)
  - Barcode
  - Maps



# Sheet

- Backend: Python 3.9+
- Frontend: React.js
- Mobile: Flutter
- IAC / Platform: AWS
- AI: OpenAI GPT, Google Gemini, Anthropic Claude, Hugging Face Models (anyone with conversational capability), Clarifai.
- Operating System: Linux (servers, development) / MacOS (development).

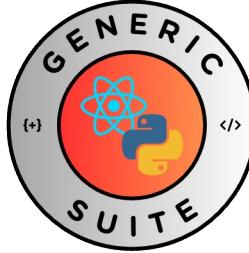


# GenericSuite Core

- Generic CRUD editor: create-read-update-delete code that can be parameterized and extended. There's no need to rewrite every table editor.
- Menu Builder: to configure the hierarchical structure, user security levels, and React.js components.
- Endpoint Builder: To configure the entry points (URLs) of APIs and Python methods.
- All configurations in JSON files.

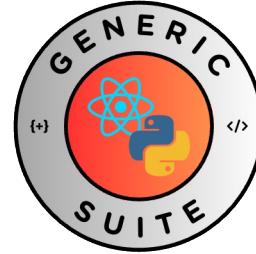


# GenericSuite Core (2)

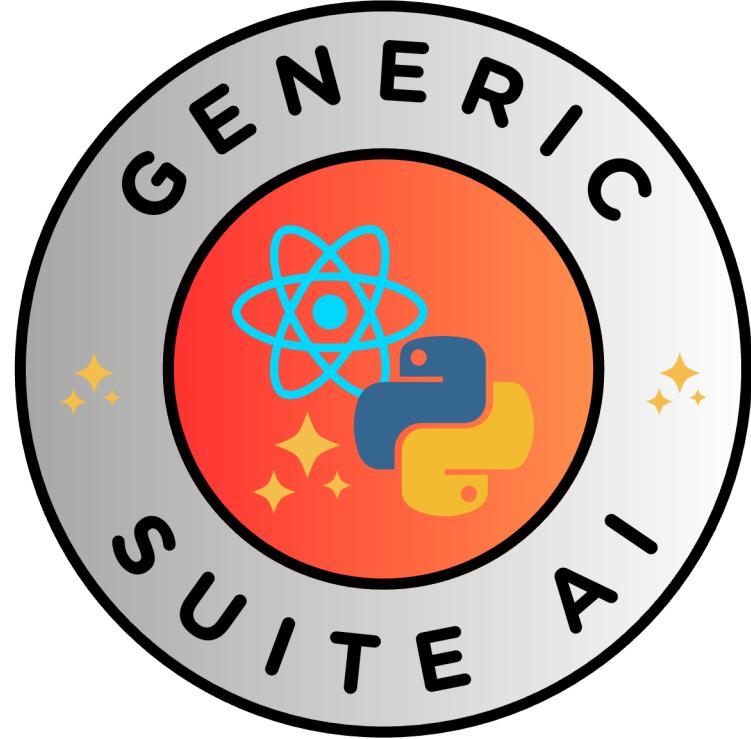


- Database Abstraction:
  - The backend can use either DynamoDB or MongoDB.
  - DynamoDB can be accessed using the same MongoDB syntax.
- Framework Abstraction: for the development of APIs in Python with FastAPI, Chalice or Flask indistinctly.
- Parameterization from the database: to expand the possibility of configuring the system dynamically.

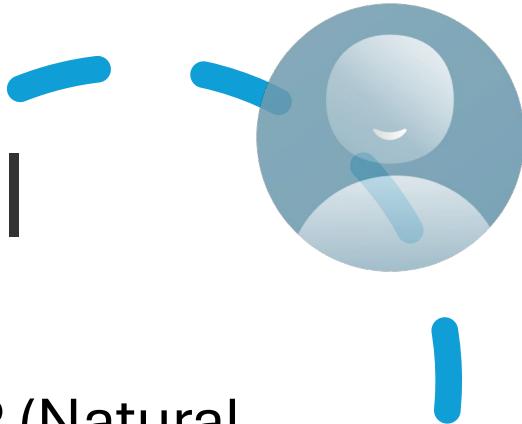
# GenericSuite Core - Scripts



- Scripts to build local environment allows you to run the application on the development computer with HTTP/HTTPS connections, local DNS, and local MongoDB database.
- Deployment scripts: facilitates the deployment of the application in the different environments: QA, Staging, Demo and Production.
  - Frontend: on S3 buckets with "Static website hosting" option.
  - Backend: using SAM, using API Gateway, Lambda Functions, CloudFormation, ECR (Elastic Container Registry), CloudWatch.
- Domains: handled by AWS Route 53 and ACM (AWS Certificate Manager).



# GenericSuite AI



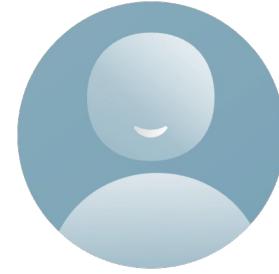
- Endpoint to implement NLP (Natural Language Processing) conversations using on OpenAI APIs or the LangChain Framework.
- Management of OpenAI, Google Gemini, Anthropic, Ollama and Hugging Face models.
- Computer Vision (OpenAI GPT-4o / GPT4 Vision, Google Gemini Vision, Clarifai Vision).

# GenericSuite AI (2)

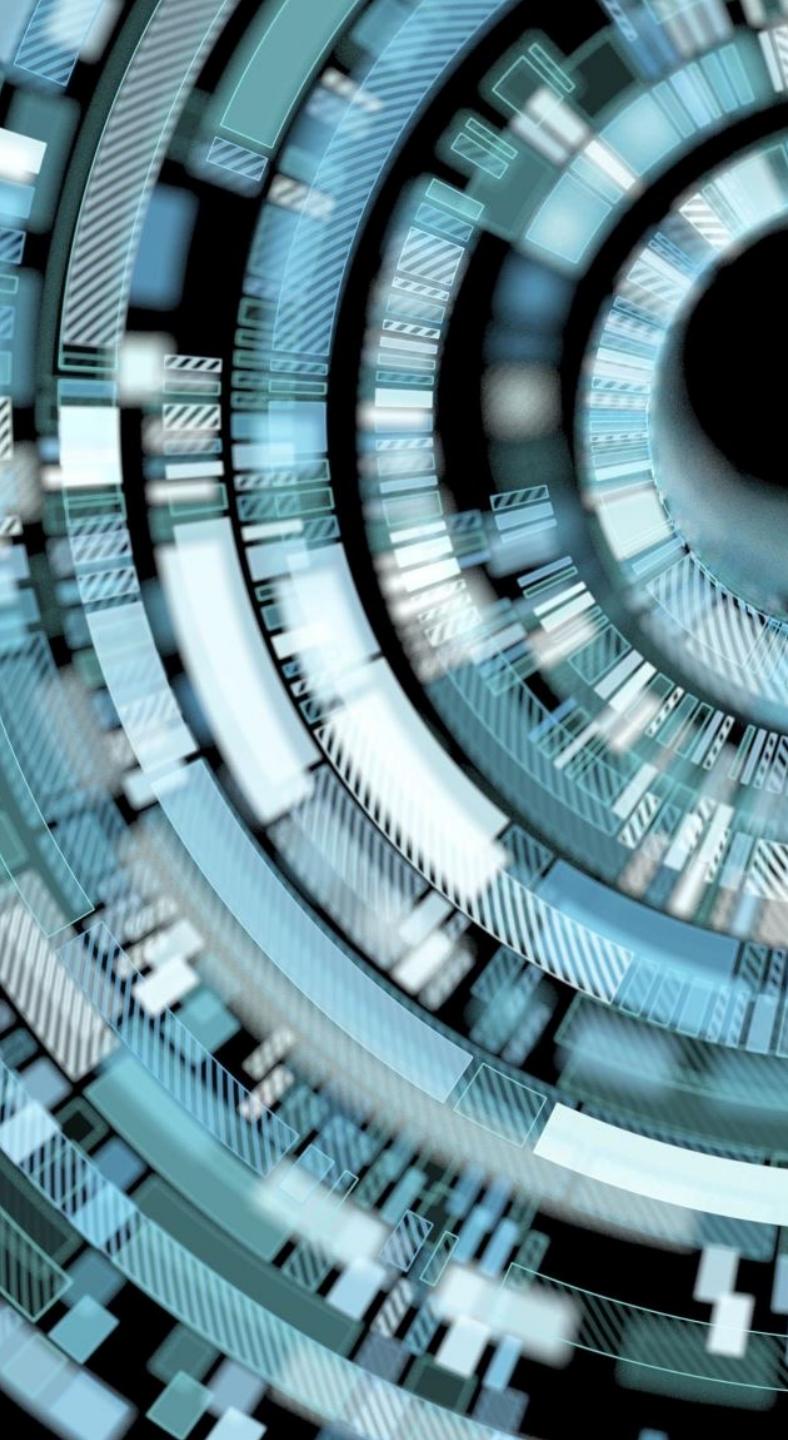


- Speech-to-text (OpenAI Whisper, Clarifai Audio Models).
- Text-to-speech (OpenAI TTS-1, Clarifai Audio Models).
- Image Generator: OpenAI DALL-E 3, Google Gemini Image, Clarifai.
- Vector Index: FAISS, Chroma, Clarifai, Vectara, Weaviate, MongoDBAtlasVectorSearch.
- Embedding Engines: OpenAI, Hugging Face, Clarifai, Amazon Bedrock, Cohere y Ollama.

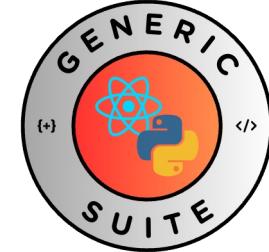
# GenericSuite AI (2)



- Web search tool for AI agents.
- Web Scrapping tool and web page analysis.
- Embeddings processors for JSON, PDF, Git, and YouTube.
- Language translation tools for AI agents.
- User plan, OpenAI API key, and model name attributes in the user profile, to allow free plan users to use their own OpenAI credits.



# How does GenericSuite work?



- As a library of reusable components and Frontend/Backend services that can be easily integrated into any React.js and Python project.
- It offers specific tools for the implementation of AI functionalities, such as natural language processing and data analysis, simplifying the incorporation of these advanced technologies into your applications.
- Open-Source libraries in NPMJS and PyPi registries.

Introduction

## Welcome to GenericSuite

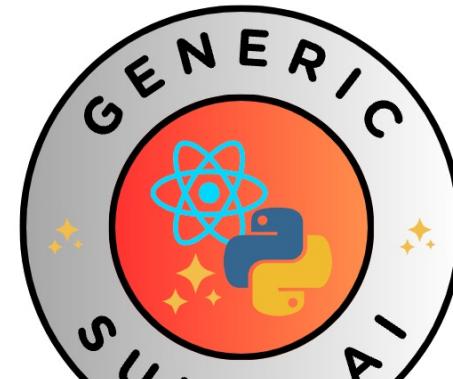
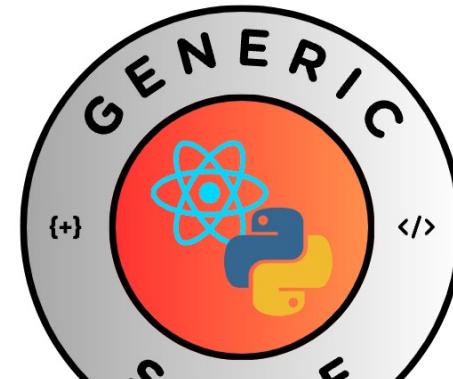


Table of contents

Table of Contents

What is the GenericSuite for?

The GenericSuite Core

The GenericSuite AI

Repositories

Documentation

Posts

License

Credits

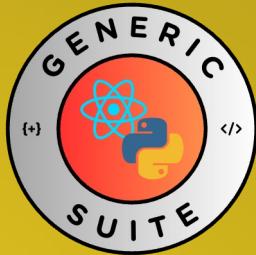
Documentation

<https://genericsuite.carlosjramirez.com/>

# Key functionalities showcase

Practical examples:

- How GenericSuite can be used to create personalized recommendations in a Calorie Deficit App.
- Automate tasks using AI Bots.
- Improve the user experience.



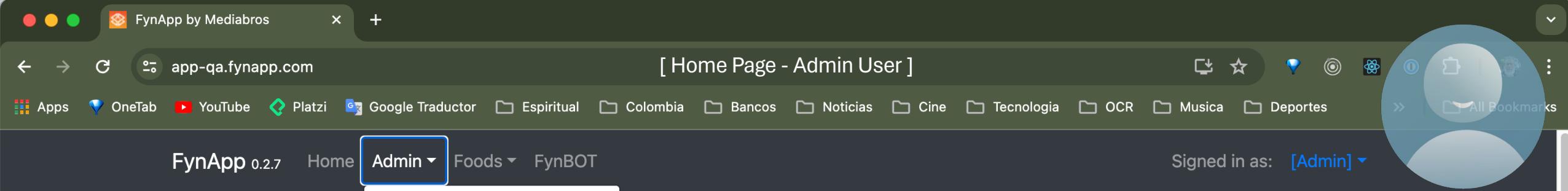
FynApp 0.2.7



Username

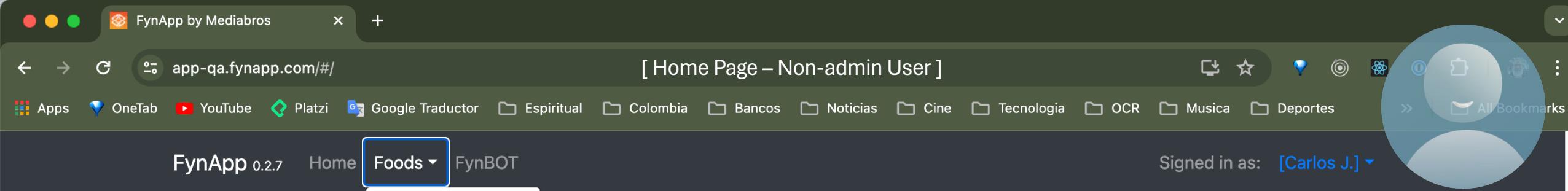
Password

**Login**



Hi Admin!

- Users
- Food Moments
- Ingredients (general)
- Configuration Parameters
- Clarifai Models



Hi Carlos J.!

- Ingredients
- Dishes
- Daily Meals

Signed in as: [Carlos J.] ▾

FynApp by Mediabros

app-qa.fynapp.com/#/general\_config [ CRUD Editor - General Parameters ]

FynApp 0.2.7 Admin Foods FynBOT Signed in as: [Admin]

All Bookmarks

## Configuration Parameters - Listing

NAME	ACTIVE	VALUE	NOTES	ACTIONS
AI_AUDIO_TO_TEXT TECHNOLOGY	No	clarifai	openai, google, clarifai	
AI_CLARIFAI_AUDIO_TO_TEXT_SDK_TYPE	Yes	clarifai_grpc	Options: python_sdk, clarifai_grpc	
AI_CLARIFAI_DEFAULT_AUDIO_TO_TEXT_MODEL	Yes	whisper-large-v2	Options: whisper, whisper-large-v2	
AI_CLARIFAI_DEFAULT_CHAT_MODEL	Yes	claude-v2	Options: GPT-4, claude-v2, mixtral-8x7B-Instruct-v0_1, llama2-70b-chat, phi-2	
AI_CLARIFAI_DEFAULT_IMG_GEN_MODEL	Yes	stable-diffusion-xl	Options: dall-e-3, stable-diffusion-xl	

Previous

Page 1 of 4 Next

Rows per page: 5

Search:



Ingredients - Listing 

NAME	CALORIES	CALORIES UNIT	SERVING SIZE	SERVING SIZE UNIT	BRAND NAME	OBSERVATIONS	CREATED	ACTIONS
AREPAS CORN CAKE, AREPAS CORN	118	Calories (KCAL)	110	Grams (g)	LA ABUELA CARMEN		2023-11-10 03:41:06	  
Aceite de Oliva Euro	41.5	Calories (KCAL)	1	Tea spoon	Euro, Colombia		2023-11-10 19:10:19	  
Arepa Frita	302	Calories (KCAL)	100	Grams (g)			2023-11-10 03:44:41	  
Arepa de Harina PAN (plain)	371	Calories (KCAL)	100	Grams (g)	PAN, Venezuela	Una Arepa Venezolana sin relleno tiene aprox. 150g	2023-11-10 03:43:10	  
Arepa de huevo	300	Calories (KCAL)	100	Grams (g)	Homemade	Custom entry for traditional Colombian dish Arepa de huevo	2024-01-18 15:28:11	  

Red yellow green window control buttons

FynApp by Mediabros

X +

Back Forward Stop Refresh Address bar: app-qa.fynapp.com/#/user\_ingredients

Title bar: [CRUD Editor – Ingredients (Data Entry Form) ]

Download Star Location Share Minimize Maximize More

Apps OneTab YouTube Platzi Google Traductor Espiritual Colombia Bancos Noticias Cine Tecnologia OCR Musica Deportes

FynApp 0.2.7 Home Foods ▾ FynBOT Signed in as: [Carlos J.] ▾

All Bookmarks

## Ingredients - Update

Type

Ingredient

Name \*

AREPAS CORN CAKE, AF ⚡ G

Calories \*

118

Calories Unit \*

Calories (KCAL)

Serving size \*

110

Serving size unit \*

Grams (g)

Brand Name

FynApp by Mediabros

app-qa.fynapp.com/#/user\_ingredients

Signed



FynApp 0.2.7 Home Foods ▾ FynBOT

## Ingredients - Update

Type

Ingredient

Name \*

AREPAS CORN CAKE, AF  

Calories \*

118

Calories Unit \*

Calories (KCAL)

Serving size \*

110

Serving size unit \*

Grams (g)

Brand Name

LA ABUELA CARMEN

Observations

# CRUD Editor – Ingredients

(Data Entry Form)

FynApp by Mediabros

app-qa.fynapp.com/#/user\_ingredients

FynApp 0.2.7 Home Foods FynBOT Signed

Type

Ingredient

Name \*

AREPAS CORN CAKE, AF ✎ G

Calories \*

118

Calories Unit \*

Calories (KCAL)

Serving size \*

110

Serving size unit \*

Grams (g)

Brand Name

LA ABUELA CARMEN

Observations

FynApp by Mediabros

app-qa.fynapp.com/#/chatbot?menu=0&ssb=0...

Give me the AREPAS CORN CAKE, AREPAS CORN calories in KCAL including the serving size amount and serving size unit. I look first in thr

> 🎤 🗂️ 📸

FynApp.com by Mediabros.com

# CRUD Editor – Ingredients

- With AI Assistant pop-up window.

## Daily Meals - Listing

DATE	TOTAL CALORIES	OBSERVATIONS	ACTIONS
2023-12-31 00:00:00	0.51 Calorie Deficit	taza grande de cafe con leche	
2023-12-29 00:00:00	815 Calorie Deficit	Consumo de alimentos en un dia normal	
2023-12-03 00:00:00	800 Calorie Deficit		
2023-11-24 05:00:00	608.5 Calorie Deficit	Manzana verde como snack	
2023-11-16 00:00:00	330 Calorie Deficit	Un solo banano	



FynApp by Mediabros

app-qa.fynapp.com/#/daily\_meals

Signed in as: [User Icon]

FynApp 0.2.7 Home Foods FynBOT



## Daily Meals - Update

Date \*

12/29/2023

Total Calories

815 Calorie Deficit

Daily Calorie Goal

2247.40

Observations

Consumo de alimentos en un dia normal

Update

Cancel

## Meal Ingredients - Listing

# CRUD Editor - Daily Meals

- Data Form with 1-N Relationship section

TYPE	NAME	CALORIES	CALORIES UNIT	SERVING SIZE	SERVING SIZE UNIT	QTY.	TOTAL	BRAND NAME
	tortilla de jamón y queso	315	Calories (KCAL)	1	Unit	1	315	nada
	arepa con queso	350	Calories (KCAL)	1	Unit	1	350	nada

FynApp by Mediabros

app-qa.fynapp.com/#/profile

Apps OneTab YouTube Platzi Google Traductor Espiritual Colombia Bancos Noticias Cine Tecnologia OCR Music

FynApp 0.2.7 Home Foods FynBOT Signed



## User Profiles - Update

First Name \*

Carlos J.

Last Name \*

Ramirez

Email \*

example@email.org

Birthday \*

09/27/1966

Gender \*

Male

Training Days \*

6

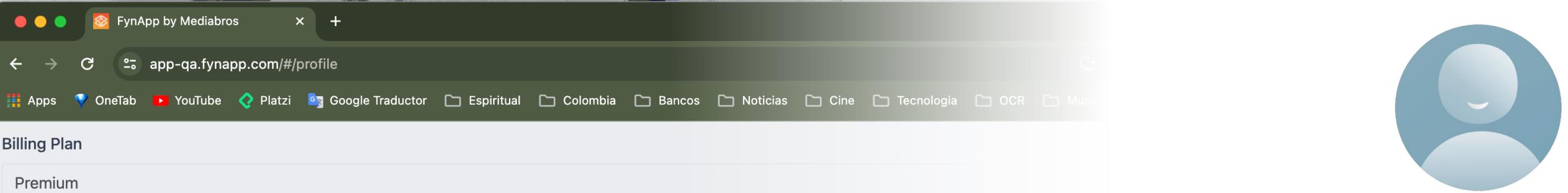
Training Hour \*

14:00

Height \*

# User Profile Editor

- Single-record editor



# User Profile Editor

- API Keys de IA.
- Password Change.

OpenAI Model (defaults to gpt-3.5-turbo)

Client Since

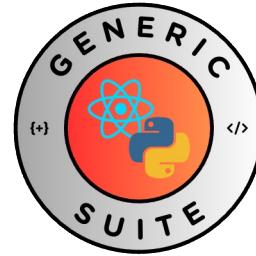
08/18/2022, 12:00 AM

PASSWORD CHANGE

New password

Repeat new password

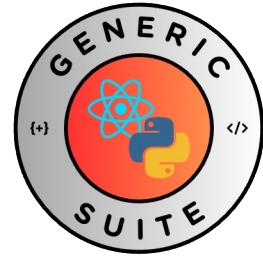
# Configuring Tables and CRUD Editor



```
{  
  "baseUrl": "users",  
  "title": "Users",  
  "name": "User",  
  "component": "Users",  
  "dbApiUrl": "users",  
  "fieldElements": [  
    {  
      "name": "id",  
      "required": true,  
      "label": "ID",  
      "type": "_id",  
      "readonly": true,  
      "hidden": false,  
    }, ...  
    {  
      "name": "firstname",  
      "required": true,  
      "label": "First Name",  
      "type": "text",  
      "readonly": false,  
      "listing": true  
    },  
    {  
      "name": "lastname",  
      "required": true,  
      "label": "Last Name",  
      "type": "text",  
      "readonly": false,  
      "listing": true  
    }, ...  
    {  
      "name": "status",  
      "required": true,  
      "label": "Active",  
      "type": "select",  
      "select_elements": "TRUE_FALSE",  
      "default_value": "1",  
      "listing": true  
    },  
    {  
      "name": "plan",  
      "label": "Billing Plan",  
      "type": "select",  
      "select_elements": "BILLING_PLANS",  
      "default_value": "1",  
      "listing": true  
    }, , ...  
    {  
      "name": "update_date",  
      "label": "Last update",  
      "type": "datetime-local",  
      "readonly": true,  
      "default_value": "current_timestamp",  
      "listing": false  
    },  
    {  
      "name": "label0",  
      "type": "hr"  
    },  
    {  
      "name": "label1",  
      "label": "PASSWORD CHANGE",  
      "type": "label"  
    }, , ...  
  ]  
}
```

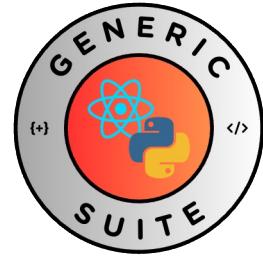
# Menu Configuration

```
[  
 {  
   "title": "Home",  
   "location": "top_menu",  
   "type": "nav_link",  
   "path": "/",  
   "element": "HomePage",  
   "hard_prefix": false,  
   "reload": true  
 }, ...  
  
 {  
   "title": "Admin",  
   "location": "top_menu",  
   "type": "nav_dropdown",  
   "sec_group": "admin",  
   "sub_menu_options": [  
     {  
       "type": "editor",  
       "sec_group": "admin",  
       "title": "Users",  
       "element": "Users_EditorData"  
     }, ...  
   ]  
 }, ...  
  
 {  
   "title": "AI Assistant",  
   "location": "top_menu",  
   "type": "nav_link",  
   "sec_group": "users",  
   "path": "/chatbot",  
   "element": "Chatbot"  
 }, ...
```



# API Endpoint Configuration

```
[  
  {  
    "name": "general_config",  
    "url_prefix": "general_config",  
    "routes": [  
      {  
        "endpoint": "/",  
        "methods": ["GET", "POST", "PUT", "DELETE"],  
        "handler_type": "GenericEndpointHelper",  
        "view_func": "lib.util.generic_endpoint_builder.generic_route_handler",  
        "params": {  
          "json_file": "general_config"  
        }  
      }  
    ]  
  },  
  {  
    "name": "ai_chatbot_conversations",  
    "url_prefix": "ai_chatbot_conversations",  
    "routes": [  
      {  
        "endpoint": "/",  
        "methods": ["GET", "POST", "PUT", "DELETE"],  
        "handler_type": "GenericEndpointHelper",  
        "view_func":  
          "lib.util.generic_endpoint_builder.generic_route_handler",  
        "params": {  
          "json_file": "ai_chatbot_conversations"  
        }  
      }  
    ]  
  }]
```



## New Conversation

Last Month

y en esta otra imagen que hay ?

que hay en la imagen ?

que hay en la siguientes imágenes: <https://fynapp-ct>

que hay en la imagen ?

que hay en la imagen ?

que hay en la siguiente imagen?

que hay en la siguiente imagen?

que hay en la imagen 3

#### **how to create a ppt pre**

[Enseñar en la escuela en la enseñanza y el aprendizaje](#)

Give me the AREPAS CORN CAKE AREPAS CORN

quién eres y cuál modelo estás usando?

cuantas calorias tiene el arroz con pollo ?

Eres un experto en hacer presentaciones en powerpoint. Quiero que me des los textos de la presentacion correspondiente a una charla llamada "La Librería de Software GenericSuite". En esta charla hablaremos sobre el origen (en este caso la programacion generica y el principio DRY - don't repeat yourself), por qué se creó y cómo funciona la librería GenericSuite, diseñada para facilitar el desarrollo de aplicaciones en Python y React.js, incluyendo funcionalidades de IA.

Para tu presentación sobre "La Librería de Software GenericSuite", te propongo una estructura con textos para cada sección que solicitaste. Esta estructura te ayudará a guiar a tu audiencia a través del origen, el propósito y el funcionamiento de GenericSuite, resaltando su importancia en el desarrollo de aplicaciones con Python y React.js, y su integración con funcionalidades de IA.

\*\*Diapositiva 1: Portada\*\*

- Título: "Explorando GenericSuite: Innovación en Desarrollo de Software"

- Subtítulo: "Uniendo Python, React.js y la Inteligencia Artificial"

- Tu nombre y fecha

\*\*Diapositiva 2: Agenda\*\*

- Breve introducción
  - Origen de GenericSuite
  - Por qué se creó GenericSuite



app-qa.fynapp.com/#/chatbot

Apps OneTab YouTube Platzi Google Traductor Espiritual Colombia Bancos Noticias Cine Tecnologia OCR Musica Deportes All Bookmarks

FynApp 0.2.7 Home Foods FynBOT [ AI Assistant – Image Recognition ] Signed in as: [Carlos J.]

New Conversation

Last Month

y en esta otra imagen que hay ?

que hay en la imagen ?

que hay en esta imagen ? <https://fynapp-chatbot-a>

que hay en la siguientes imagen: <https://fynapp-cl>

que hay en la imagen ?

que hay en la imagen ?

que hay en la siguiente imagen?

que hay en la siguiente imagen?

que hay en la imagen ?

how to create a ppt presentation in python ?

Eres un experto en hacer presentaciones en powerpoint

eres un experto en hacer presentaciones en powerpoint

March 2024

Give me the AREPAS CORN CAKE, AREPAS CORN

quien eres y cual modelo estas usando ?

cuantas calorias tiene el arroz con pollo ?

que hay en la imagen ?

Attachment: "PHOTO-2024-05-13-08-11-38.jpg" (0.03 Mb)

Explanación:

Dado que el bromo es un buen grupo saliente el oxígeno puede atacar al carbono  $\alpha$  al Br y sustituirlo

La imagen muestra un papel con anotaciones manuscritas y dibujos de estructuras químicas que representan una secuencia de reacciones orgánicas. En la parte superior izquierda hay un número "3" circulado, posiblemente indicando que es el tercer problema o ejemplo.

Choose File No file chosen

/tts: 123

/tts: que bruto es este HP Gpt3.5 no joda

/tts: gracias mi Dios por tanto

/tts: Dios por favor haz que funcione el TTS en QA

/tts: gracias mi Dios porque ya funciona el TTS en

/tts: gracias mi Dios porque ya funciona el TTS en

/tts: Gracias Dios mio por este nuevo dia.

/tts: Gracias Dios mio por este nuevo dia. Dios por

/tts: Gracias Dios mio por este nuevo dia. Dios por

/tts: Gracias Dios mio por este nuevo dia. Dios por

/tts: Dios por favor ayudame una vez mas. Gracias

que hay en la image?

Dame un mapa politico a Colombia.

/tts: gracias Dios mio porque estoy en recuperacion



La imagen muestra una clásica comida rápida compuesta por una hamburguesa y un lado de papas fritas. La hamburguesa tiene un pan con semillas de sésamo en la parte superior, y parece contener una hamburguesa de carne, hojas de lechuga, rodajas de tomate, cebolla y pepinillos. Todo ello se acompaña de un vaso de una bebida oscura, que podría ser refresco, al fondo. Todo se presenta en un plato sobre una mesa con un mantel o servilleta debajo. Este tipo de comida es popular en muchas partes del mundo y es conocida por su sabor y conveniencia, aunque a menudo se discute sobre su valor nutricional y su impacto en la salud cuando se consume con frecuencia.

[New Conversation](#)

Last Month

y en esta otra imagen que hay ?

que hay en la imagen ?

que hay en esta imagen ? <https://fynapp-chatbot-a>que hay en la siguientes imagen: <https://fynapp-cl>

que hay en la imagen ?

que hay en la imagen ?

que hay en la siguiente imagen?

que hay en la siguiente imagen?

que hay en la imagen ?

how to create a ppt presentation in python ?

eres un experto en hacer presentaciones en powerpoint

eres un experto en hacer presentaciones en powerpoint

March 2024

Give me the AREPAS CORN CAKE, AREPAS CORN

quien eres y cual modelo estas usando ?

cuantas calorías tiene el arroz con pollo ?

[Close](#)[Change Front/Back](#)[Take Photo](#)

La imagen muestra un papel con anotaciones manuscritas y dibujos de estructuras químicas que representan una secuencia de reacciones orgánicas. En la parte superior izquierda hay un número "3" circulado, posiblemente indicando que es el tercer problema o ejemplo.



FynApp by Mediabros    The GenericSuite

app-qa.fynapp.com/#/chatbot [ AI Assistant - Photo Shoot & Image Recognition ]

FynApp 0.2.7 Home Foods ▾ FynBOT Signed in as: [Carlos J.] ▾

cuales frutas conforman los frutos rojos ?  
dame la imagen de un jamon serrano español  
dame la imagen de un kiwi  
dame la imagen de un melon  
calorias de la piña  
cuantas calorias tiene ese pan de jamon ?

November 2023

Give me the Arroz cocido calories in KCAL includin

Que hay en la foto?  
estoy comiendo esto, que es y cuantas calorias tie

describe la foto

dame la lista de mis ingredientes

dame la lista de mis ingredientes

busca en la web todo lo que consigas sobre carlos

que contiene la imagen y si es de comida, cuantas c

que es y cuantas calorias tiene?

que es y cuantas calorias tiene ?

cuantas calorias tiene?

Estás comiendo un mango. Dependiendo del tamaño y la variedad, un mango mediano puede tener alrededor de 150 calorías. Los mangos son frutas tropicales conocidas por su sabor dulce y textura jugosa, y también son una fuente rica de vitaminas A y C, así como fibra.

no es un mango

Lo siento, no pude identificar la imagen. ¿Podrías describirme qué estás comiendo?

estoy comiendo esto

Attachment: "image\_capture\_2023\_11\_25T19\_44\_26.jpg" (0.01 Mb)



Estás comiendo una manzana verde. Parece ser una manzana fresca y posiblemente crujiente, una opción saludable como snack o parte de una comida. Las manzanas verdes a menudo son ligeramente ácidas y refrescantes. ¡Disfrútala!

< > ⌂ ⌂ ⌂

FynApp by Mediabros

The GenericSuite

app-qa.fynapp.com/#/chatbot

# [AI Assistant - Image Generator ]

FynApp 0.2.7 Home Foods ▾ FynBOT

Signed in as: [Carlos J.]

All Bookmarks

crea imagen de una arepa de huevo colombiana

crea imagen de una arepa de huevo colombiana

crea imagen de una arepa de huevo

crea una imagen de una arepa de huevo

crea una imagen de una arepa de huevo

dame la imagen de una arepa de huevo

calorias de la arepa de huevo

calorias de la arepa de huevo

**Haz la imagen de la una arepa de queso amarillo**

December 2023

agregalo a mis ingredientes

en que fecha agregaste ese desayuno ?

Esta mañana me tomé una taza de café con leche

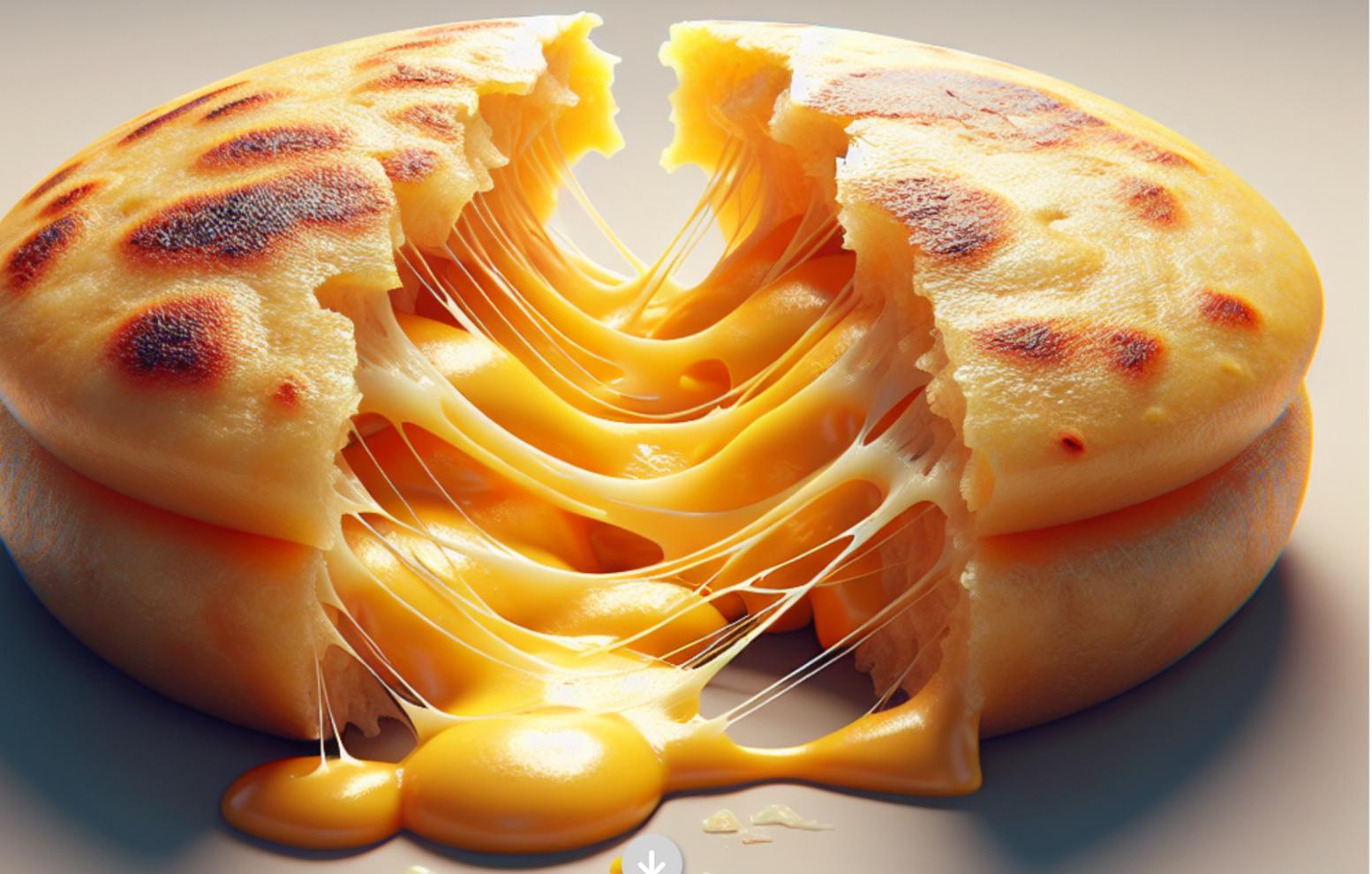
que tengo registrado en mis comidas de hoy ?

hoy al levantarme me tome una taza grande de ca

Calorías del arroz con guandú

Hola, hola, hola.

Haz la imagen de la una arepa de queso amarillo



>   

Give me the Arroz cocido calories in KCAL includin

Que hay en la foto?

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que contiene la imagen y si es de comida, cuantas

que es y cuantas calorias tiene?

que es y cuantas calorias tiene ?

cuantas calorias tiene?

Dame un componente react que muestre un conte

Tengo eso en mis ingredientes ?

Give me the Mix Arandanos La Especial calories in

cuantas calorias en total tiene la comida de la fot

cuantas calorias tiene ? pista: es un plato navideñ

Give me the Avena en Hojuelas Toning calories in

Dame un componente react que muestre un contenido en un pop-up modal usando react-bootstrap

Para mostrar un contenido en un pop-up modal usando React y react-bootstrap, puedes usar el siguiente componente:

jsx

```
import React, { useState } from 'react';
import { Button, Modal } from 'react-bootstrap';

function ContentModal() {
  const [show, setShow] = useState(false);

  const handleClose = () => setShow(false);
  const handleShow = () => setShow(true);

  return (
    <>
      <Button variant="primary" onClick={handleShow}>
        Open Modal
      </Button>
      <Modal show={show} onHide={handleClose}>
        <Modal.Header closeButton>
          <Modal.Title>Modal Heading</Modal.Title>
        </Modal.Header>
        <Modal.Body>
          <p>Modal Content Goes Here</p>
        </Modal.Body>
        <Modal.Footer>
```



FynApp by Mediabros    The GenericSuite

app-qa.fynapp.com/#/chatbot [ AI Assistant – RAG + GPT Functions ]

Signed in as: [Carlos J.]

FynApp 0.2.7 Home Foods ▾ FynBOT

Apps OneTab YouTube Plazti Google Traductor Espiritual Colombia Bancos Noticias Cine Tecnologia OCR Musica Deportes All Bookmarks

dame la imagen de un jamon serrano español

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November 2023

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Que hay en la foto?

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describe la foto

dame la lista de mis ingredientes

dame la lista de mis ingredientes

busca en la web todo lo que consigas sobre carlos

que contine la imagen y si es de comida, cuantas

que es y cuantas calorias tiene?

que es y cuantas calorias tiene ?

cuantas calorias tiene?

dame la lista de mis ingredientes

Aquí tienes la lista de tus ingredientes:

- Arepas de maíz La Abuela Carmen (118 kcal por 110g)
- Aceite de Oliva Euro (41.5 kcal por cucharadita)
- Arepa Frita (302 kcal por 100g)
- Arepa de Harina PAN (371 kcal por 100g)
- Atún en Aceite Euro (228 kcal por porción)
- Atún en Agua Euro (112 kcal por porción)
- Avena en Hojuelas Quaker (90 kcal por 13g)
- Avena en Hojuelas Toning (117 kcal por 24g)
- Café negro (2 kcal por taza)
- Cambur / Banano (110 kcal por unidad)
- Carne Molida preparada (172 kcal por 80g)
- Carne de res a la plancha (200 kcal por 100g)
- Coco Superior Corona (83 kcal por 200ml)

< >

```
..icsuite-be-ai (-zsh)  #1 | ..nericsuite-be (-zsh)  #2 | ..te-be-scripts (-zsh)  #3 | ..nericsuite-fe (-zsh)  #4 | ..icsuite-fe-ai (-zsh)  #5 | make (python)  #6 | ..rico_frontend (-zsh)  #7
18% 3.6 GB 0.0 kB↓ 0.0 kB↑ -zsh ~ /d/m/github/prico_frontend PC-4_create_fe_repo_and_ba... chain =
→ prico_frontend git:(PC-4_create_fe_repo_and_basic_app) ✘ $ make run
    type: https ,
  options: {
    key: <Buffer 2d 2d 2d 2d 42 45 47 49 4e 20 52 53 41 20 50 52 49 56 41 54 45 20 4b 45 59 2d 2d 2d 2d 2d 0d 0a 4d 49 49 45 70 41 49 42
41 41 4b 43 41 51 45 41 32 ... 1656 more bytes>,
    cert: <Buffer 2d 2d 2d 2d 42 45 47 49 4e 20 43 45 52 54 49 46 49 43 41 54 45 2d 2d 2d 2d 2d 0d 0a 4d 49 49 44 69 54 43 43 41 6e 47 6
7 41 77 49 42 41 67 49 46 4e ... 2658 more bytes>
  }
}
}i> [webpack-dev-server] Project is running at:
<i> [webpack-dev-server] Loopback: https://localhost:3000/
<i> [webpack-dev-server] On Your Network (IPv4): https://192.168.1.4:3000/
<i> [webpack-dev-server] On Your Network (IPv6): https://[fe80::1]:3000/
<i> [webpack-dev-server] Content not from webpack is served from '/Users/carlosramirez/desarrollo/mediabros_repos/github/prico_frontend/public' directory
<i> [webpack-dev-server] 404s will fallback to '/index.html'
[BABEL] Note: The code generator has deoptimised the styling of /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_frontend/node_modules/react-dom/cjs/react-dom.development.js as it exceeds the max of 500KB.
asset main.bundle.js 6.55 MiB [emitted] (name: main)
asset favicon.ico 3.78 KiB [emitted]
asset index.html 2.48 KiB [emitted]
orphan modules 1.69 MiB [orphan] 513 modules
runtime modules 27.7 KiB 15 modules
modules by path ./node_modules/ 5.29 MiB
  javascript modules 5.29 MiB 1116 modules
  json modules 1.52 KiB
    ./node_modules/character-entities-legacy/index.json 1.24 KiB [built] [code generated]
    ./node_modules/character-reference-invalid/index.json 289 bytes [built] [code generated]
modules by path ./src/ 72.5 KiB
  modules by path ./src/components/Registry/ 68.8 KiB 13 modules
  ./src/index.jsx 395 bytes [built] [code generated]
  ./src/components/App/App.jsx 817 bytes [built] [code generated]
  ./src/components/HomePage/HomePage.jsx 1.04 KiB [built] [code generated]
  ./src/components/About/About.jsx 1.47 KiB [built] [code generated]
webpack 5.91.0 compiled successfully in 15746 ms
```

make run

```
..icsuite-be-ai (-zsh) #1 ..nericsuite-be (-zsh) #2 ..te-be-scripts (-zsh) #3 ..nericsuite-fe (-zsh) #4 ..icsuite-fe-ai (-zsh) #5 make (python) #6 ..rico_frontend (-zsh) #7
```

17% | 3.5 GB | 0.0 kB↓ 0.0 kB↑ | python + python + sh + make | ~d/m/github/prico\_backend | PC-3\_create\_be\_repo\_and\_b... | chain =

```
↳ prico_backend git:(PC-3_create_be_repo_and_basic_app) ✘ $  
↳ prico_backend git:(PC-3_create_be_repo_and_basic_app) ✘ $ make run  
sh node_modules/genericsuite-be-scripts/scripts/aws/set_chalice_cnf.sh qa  
CURRENT_FRAMEWORK 'fastapi' doesn't need 'set_chalice_cnf.sh' script to run...  
sh node_modules/genericsuite-be-scripts/scripts/clean_logs.sh  
sh node_modules/genericsuite-be-scripts/scripts/aws/run_aws.sh run_local  
SCRIPTS_DIR: /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend/node_modules/genericsuite-be-scripts/scripts/aws  
REPO_BASEDIR: /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend  
  
Stage: dev  
Port: 5001  
Run method (RUN_METHOD): uvicorn  
Python entry point (APP_DIR.APP_MAIN_FILE): app.main  
  
Run over: 1) http, 2) https ?  
1 [ Running the Backend in the local environment ]  
  
=> get_domain_name_dev.sh:  
  
SELF_SCRIPTS_DIR: /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend/node_modules/genericsuite-be-scripts/scripts/aws/..  
REPO_BASEDIR: /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend  
  
Enable bridge proxy...  
Get the IP address of the domain  
IP address wasn't found with the 'host' command. Trying with 'ping'...  
Domain IP: 192.168.1.4  
Extract port number from DEV_MASK_EXT_HOSTNAME: mediabroscol.duckdns.org  
DEV_MASK_EXT_HOSTNAME doesn't have the port number, assign default value  
Adding the port number 33815 to mediabroscol.duckdns.org  
  
NGINX Configuration:  
Domain name: app.prico.local  
DEV_MASK_EXT_PORT catch: 33815:80  
DEV_MASK_EXT_SSL_CERT_KEY volume: /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend/mediabroscol.duckdns.org.key:/etc/nginx/certs/server.key:ro  
DEV_MASK_EXT_SSL_CERT_CRT volume: /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend/mediabroscol.duckdns.org.crt:/etc/nginx/certs/server.crt:ro
```

make run

..icsuite-be-ai (-zsh) #1 ..nericsuite-be (-zsh) #2 ..te-be-scripts (-zsh) #3 ..nericsuite-fe (-zsh) #4 ..icsuite-fe-ai (-zsh) #5 make (python) #6 ..rico\_frontend (-zsh) #7

22% 3.5 GB 14 kB↓ 12 kB↑ python + python + sh + make ~d/m/github/prico\_backend PC-3\_create\_be\_repo\_and\_b... chain =

```
sh node_modules/genericsuite-be-scripts/scripts/clean_logs.sh
sh node_modules/genericsuite-be-scripts/scripts/secure_local_server/run.sh "down" ""

Local Backend Server over a secure connection
Action: down
Stage (STAGE):

App name (APP_NAME): Prico (prico)
Current framework (CURRENT_FRAMEWORK): fastapi
Python entry point (APP_DIR.APP_MAIN_FILE): app.main

Scripts directory (SCRIPTS_DIR): /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend/node_modules/genericsuite-be-scripts/scripts/secure_local_server
Repository base directory (REPO_BASEDIR): /Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend

Stopping the local backend server over a secure connection.

Error response from daemon: No such container: sls-backend
Error response from daemon: No such container: sls-backend
Error response from daemon: No such container: sls-nginx
Error response from daemon: No such container: sls-nginx
```

[ Running the Backend in the local environment ]

```
NOTE: The warning '-i used with no filenames on the command line, reading from STDIN.' is normal...
>> Old APP_CORS_ORIGIN: *
>> New APP_CORS_ORIGIN: *
pipenv run uvicorn app.main:app --reload --host 0.0.0.0 --port 5001
```

Loading .env environment variables...

```
INFO: Will watch for changes in these directories: ['/Users/carlosramirez/desarrollo/mediabros_repos/github/prico_backend']
INFO: Uvicorn running on http://0.0.0.0:5001 (Press CTRL+C to quit)
INFO: Started reloader process [29750] using WatchFiles
Prico-INFO - [mongo] 2024-05-23 11:05:51 | Prico v0.0.10 | Accepting connections from: *
INFO: Started server process [29754]
INFO: Waiting for application startup.
INFO: Application startup complete.
```

..icsuite-be-ai (-zsh) #1 ..nericsuite-be (-zsh) #2 ..te-be-scripts (-zsh) #3 ..nericsuite-fe (-zsh) #4 ..icsuite-fe-ai (-zsh) #5 sh (sh) #6 ..rico\_frontend (-zsh) #7

10% 3.6 GB 0.0 kB↓ 0.0 kB↑ sh -zsh ~d/m/github/prico\_backend PC-3\_create\_be\_repo\_and\_b... chain = 5d83905660e9a088078fe67/PyYAML-6.0.1-cp311-cp311-macosx\_11\_0\_arm64.whl.metadata

Obtaining dependency information for PyYAML==6.0.1 from https://files.pythonhosted.org/packages/28/09/55f715ddb95a054b764b547f617e22f1d5e4 Using cached PyYAML-6.0.1-cp311-cp311-macosx\_11\_0\_arm64.whl.metadata (2.1 kB)

Using cached PyYAML-6.0.1-cp311-cp311-macosx\_11\_0\_arm64.whl (167 kB)

Installing collected packages: PyYAML

Successfully installed PyYAML-6.0.1

[notice] A new release of pip is available: 23.2.1 -> 24.0  
[notice] To update, run: pip install --upgrade pip

Generating DynamoDB table definitions for SAM template

base\_config\_path: /Users/carlosramirez/desarrollo/mediabros\_repos/github/prico\_backend/app/config\_dbdef  
target\_template\_path: /tmp/generate\_sam\_dynamodb/template.yml

Start directory: /Users/carlosramirez/desarrollo/mediabros\_repos/github/prico\_backend/app/config\_dbdef/frontend  
File: general\_constants.json  
File: users\_profile.json  
Table: users  
File: users.json  
Table: users  
File: ai\_chatbot\_conversations.json  
Table: ai\_chatbot\_conversations  
File: users\_config.json  
Table: users  
File: app\_constants.json  
File: general\_config.json  
Table: general\_config

[ Generating the DynamoDB SAM definitions from the JSON config files ]

DynamoDB table definitions saved to /tmp/generate\_sam\_dynamodb/template.yml

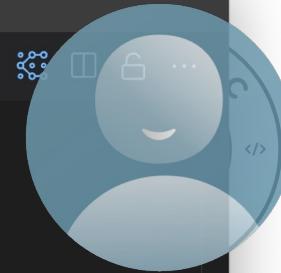
Generated SAM template file in:  
/tmp/generate\_sam\_dynamodb/template.yml

Do you want to edit it (y/n)?



← →

🔍 CJRD-WRK (Workspace)



! template.yml X

tmp > generate\_sam\_dynamodb > ! template.yml

```
1   UsersTable:
2     Type: AWS::DynamoDB::Table
3     Properties:
4       TableName: prico_users
5       AttributeDefinitions:
6         - AttributeName: id
7           AttributeType: S
8       KeySchema:
9         - AttributeName: id
10          KeyType: HASH
11       ProvisionedThroughput:
12         ReadCapacityUnits: 1
13         WriteCapacityUnits: 1
14 AiChatbotConversationsTable:
15   Type: AWS::DynamoDB::Table
16   Properties:
17     TableName: prico_ai_chatbot_conversations
18     AttributeDefinitions:
19       - AttributeName: id
20         AttributeType: S
21     KeySchema:
22       - AttributeName: id
23         KeyType: HASH
24     ProvisionedThroughput:
25       ReadCapacityUnits: 1
26       WriteCapacityUnits: 1
27 GeneralConfigTable:
28   Type: AWS::DynamoDB::Table
29   Properties:
30     TableName: prico_general_config
31     AttributeDefinitions:
32       - AttributeName: id
33         AttributeType: S
34     KeySchema:
```

[ Generating the DynamoDB SAM definitions from the JSON config files ]



Ln 12, Col 27

Spaces: 2

UTF-8

LF

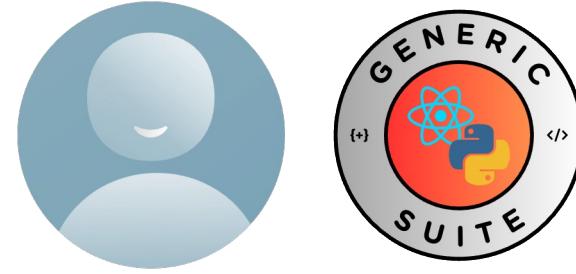
YAML

# Tools Used

- Github
- AWS
- MongoDB Atlas
- ChatGPT, Claude, Bing Copilot
- AmazonQ para VSC
- Atlassian Jira
- iTerm2
- VSC, Cursor
- Mkdocs, ReadTheDocs



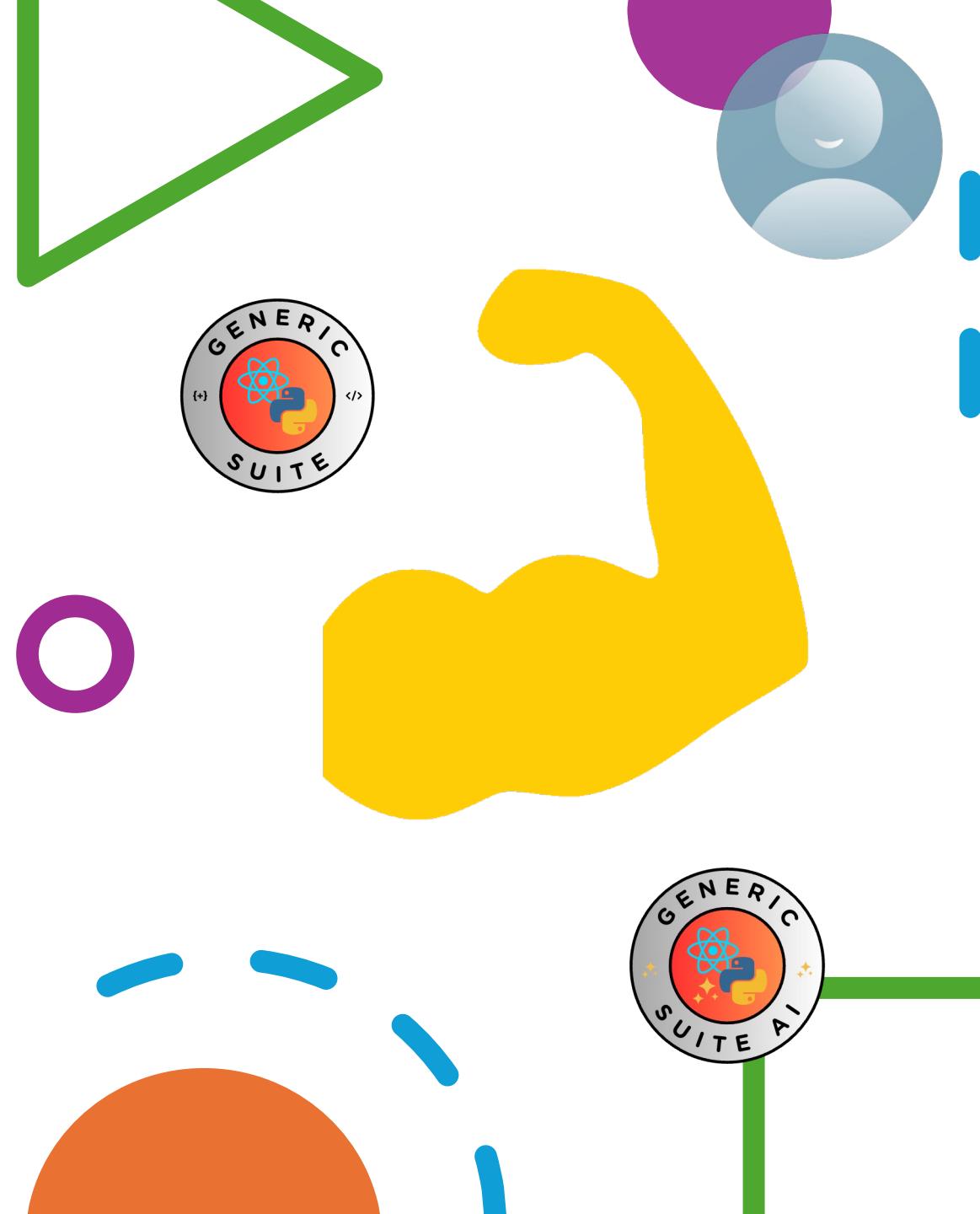
# Commitment



- The Open-Source library development implies a great commitment with the Open-Source community, especially with bug fixes, dependency maintenance, frameworks and languages new versions, among many other things.
- E.g. the imminent backdoor on a Linux key component, the XZ Utils Library. Its creator, Lasse Collin, doesn't have enough time to maintain the library and the attackers took advantage of this to orchestrate what could have been one of the most sophisticated cyberattacks in history.
- <https://www.securityweek.com/xz-utils-backdoor-attack-brings-another-similar-incident-to-light/>

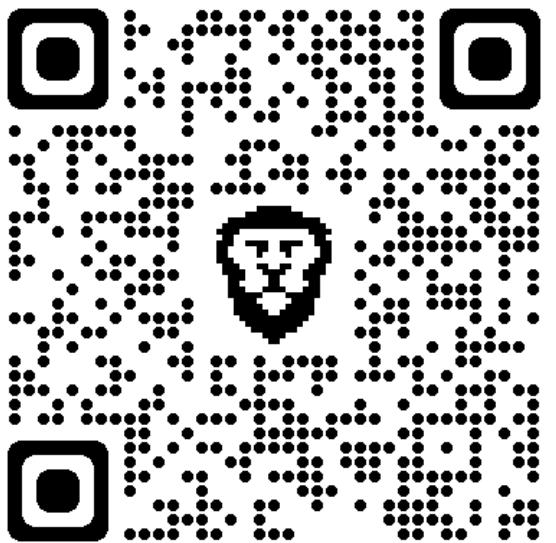
# Conclusions

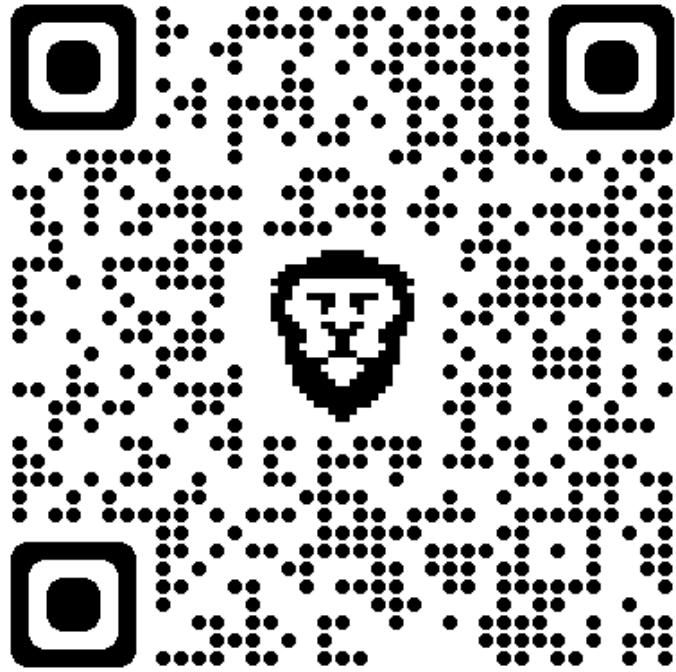
- GenericSuite represents an evolution in my professional career.
- It offers a solution that embraces the principles of generic programming and DRY.
- Streamline processes in the software development cycle (SDLC).
- It has allowed me to create powerful, flexible and cutting-edge applications in the short term.
- Creating Open-Source libraries has been an incredible and empowering experience.
- **If you don't have the expertise in a language or technology you want to excel at, create your own project.**
- Stop being technology consumers.  
**Let's become technology manufacturers.**



# Q&A

- Could GenericSuite be applied in any of project of yours?
- What functionalities would you like to explore further?



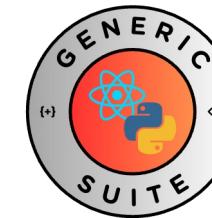


## Contact

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### Documentation

- [genericsuite.carlosjramirez.com](http://genericsuite.carlosjramirez.com)