The GenericSuite Software Library

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Exploring the Significance of Generic Programming for Innovation in Software Development

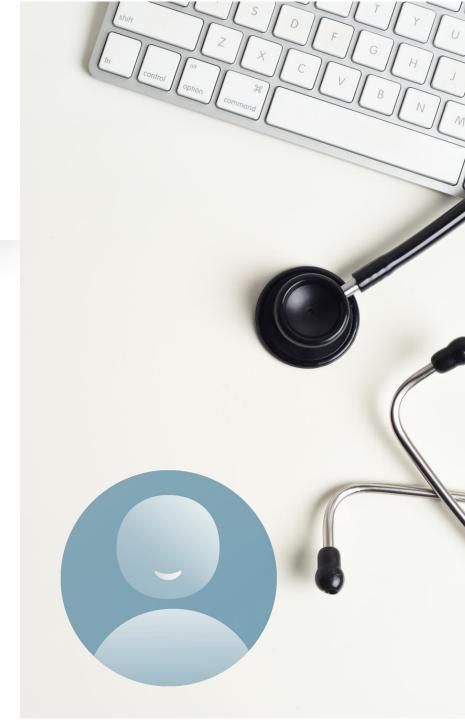
https://genericsuite.carlosjramirez.com

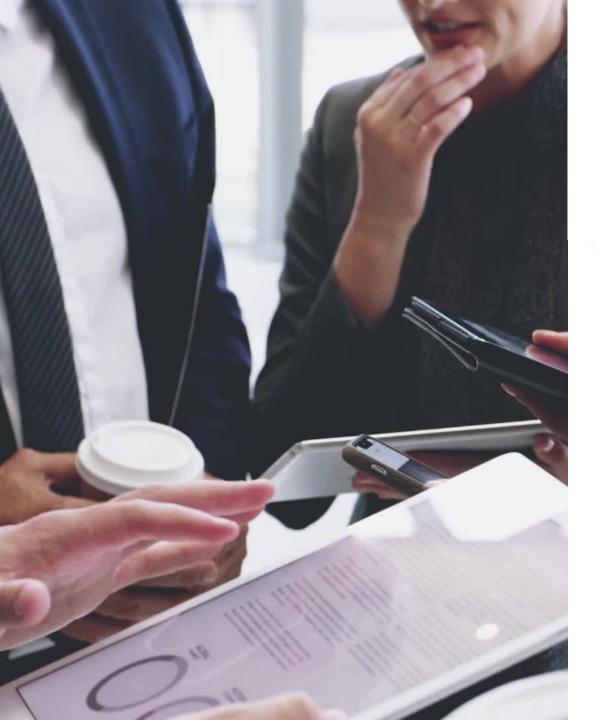
Presentation



Carlos J. Ramírez

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

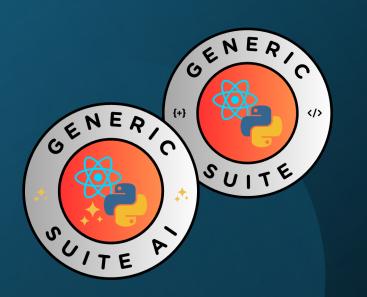




Content



- Preamble
- Motivation, why was it created?
- <u>Generic Programming</u>
- Origin of GenericSuite
- Evolution
- <u>What does GenericSuite offer?</u>
- How does GenericSuite work?
- Key functionalities showcase
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Preamble



Software development constantly face efficiency and code reuse challenges.

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?
- Avoid code redundancy in software development projects.
- Accelerate application development.
- Contribute to the Open Source community.



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.

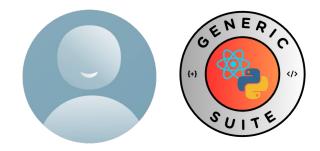
GenericSuite Origin (2)



- 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.

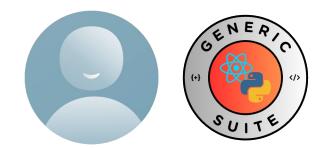


Evolution



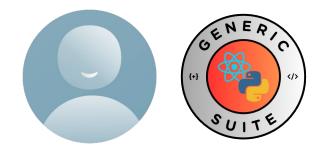
- The emergence of ChatGPT at the end of 2022 and the whole AI boom made me very curious and eager to include some of that in FynApp.
- During PyCon Colombia in June 2023, I came up with the idea of bringing generic programming to the Backend.

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.

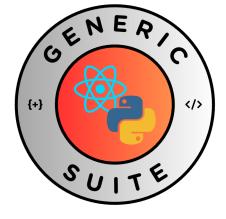
Evolution (4)



- 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).

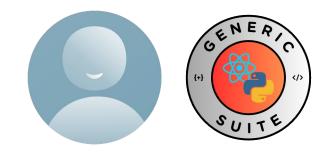


GenericSuite Core

- Generic CRUD editor: create-read-updatedelete 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)

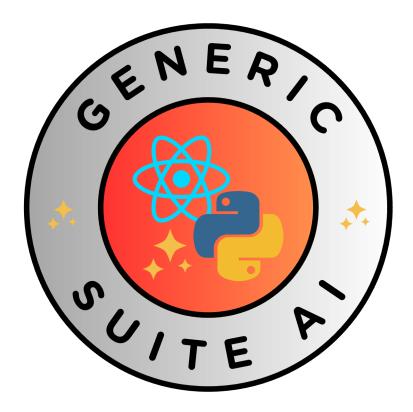


- Database Abstraction:
 - The backend can use either DynamoDB or MongoDB.
 - DynamoDB can be accessed using the same MongoDB syntax.
- Framework Abstraction: for the development of APIs in Python with FastAPI, Chalice or Flask indistinctly.
- Parameterization from the database: to expand the possibility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

- 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 (OpenAl GPT-40 / GPT4 Vision, Google Gemini Vision, Clarifai Vision).

GenericSuite AI (2)



- Speech-to-text (OpenAl 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)



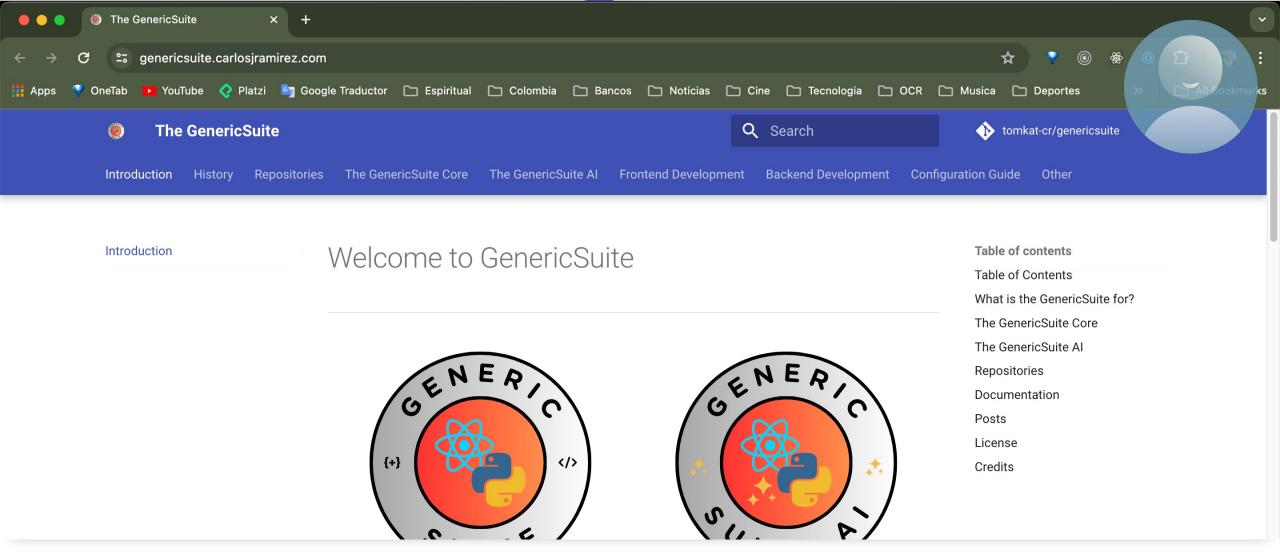
- Web search tool for AI agents.
- Web Scrapping tool and web page analysis.
- Embeddings processors for JSON, PDF, Git, and YouTube.
- Language translation tools for AI agents.
- User plan, OpenAI API key, and model name attributes in the user profile, to allow free plan users to use their own OpenAI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



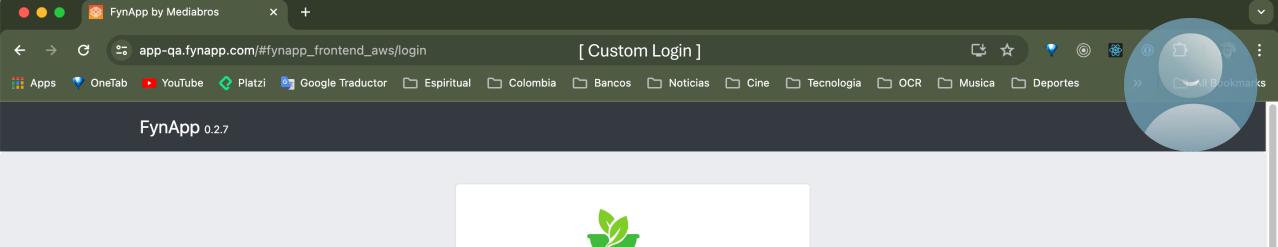
Documentation https://genericsuite.carlosjramirez.com/

Key functionalities showcase



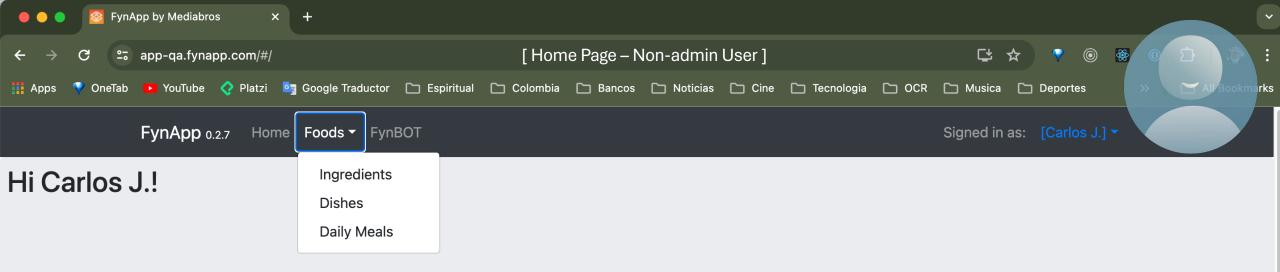
Practical examples:

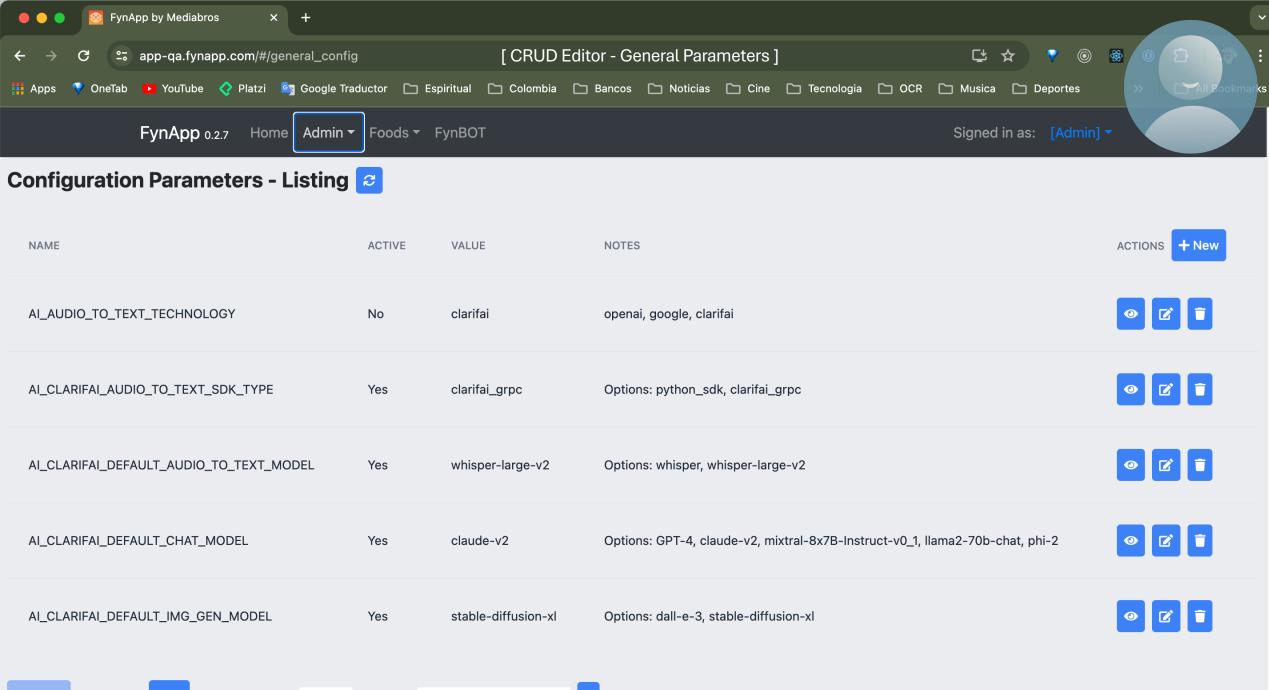
- How GenericSuite can be used to create personalized recommendations in a Calorie Deficit App.
- Automate tasks using AI Bots.
- Improve the user experience.

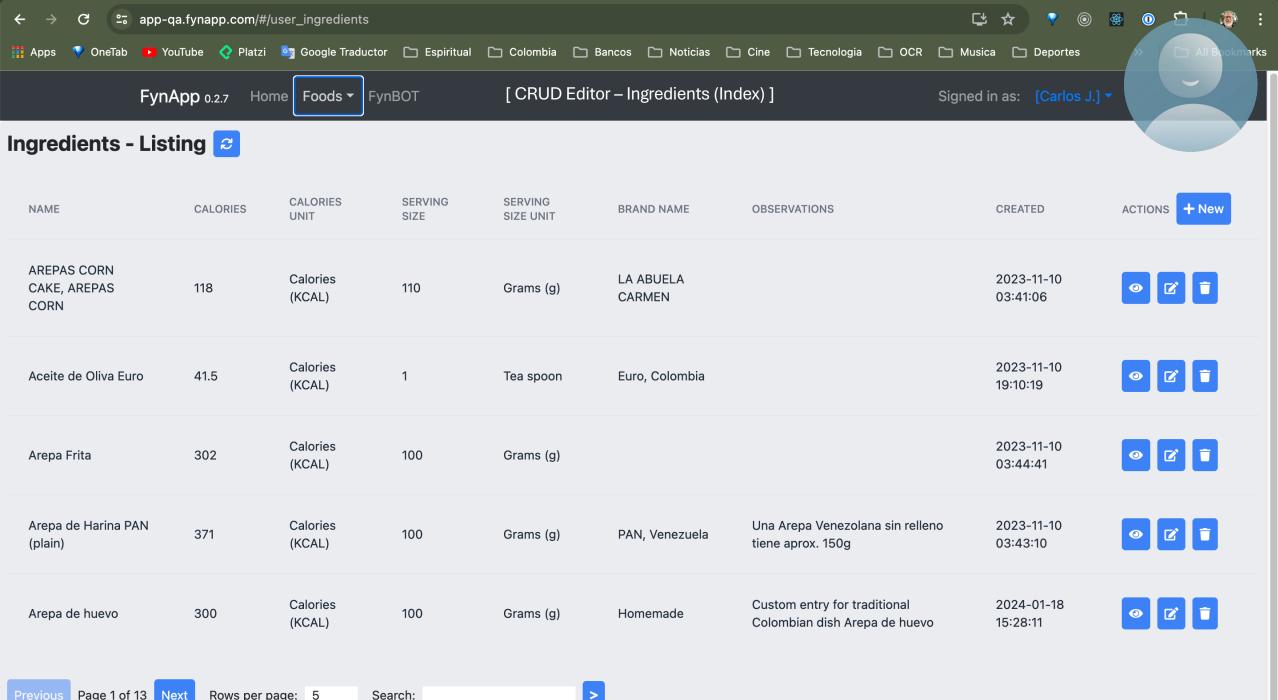


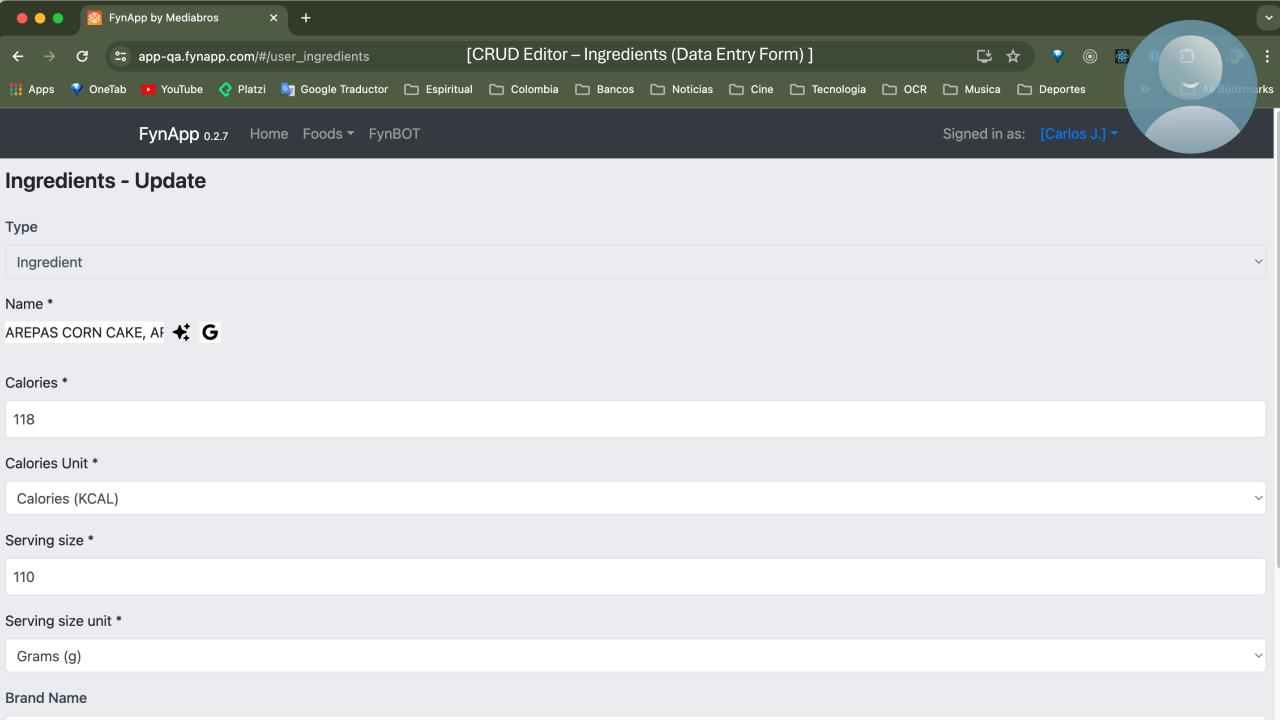
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FynApp 0.2.7 Hom	e Admin - Foods - FynBOT		Signed in as: [Admin] -
Hi Admin!	Users		
	Food Moments		
	Ingredients (general)		
	Configuration Parameters		
	Clarifai Models		







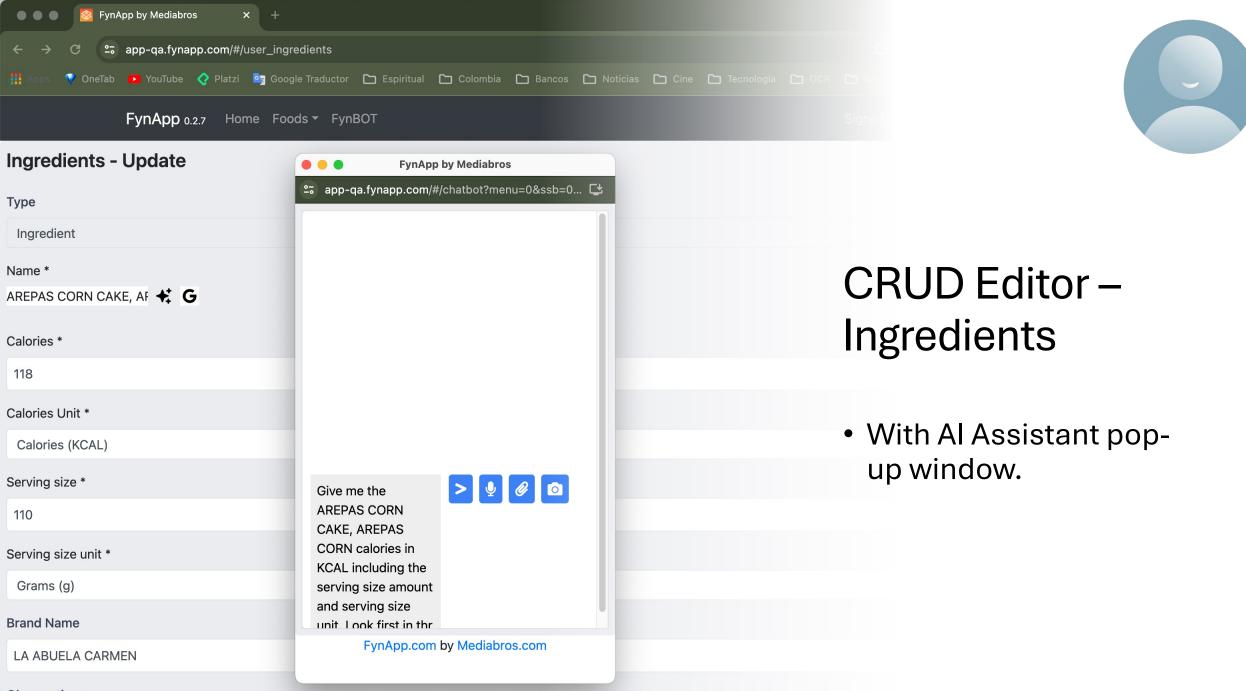


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Calories (KCAL)	
Serving size *	
110	
Serving size unit *	
Grams (g)	
Brand Name	
LA ABUELA CARMEN	

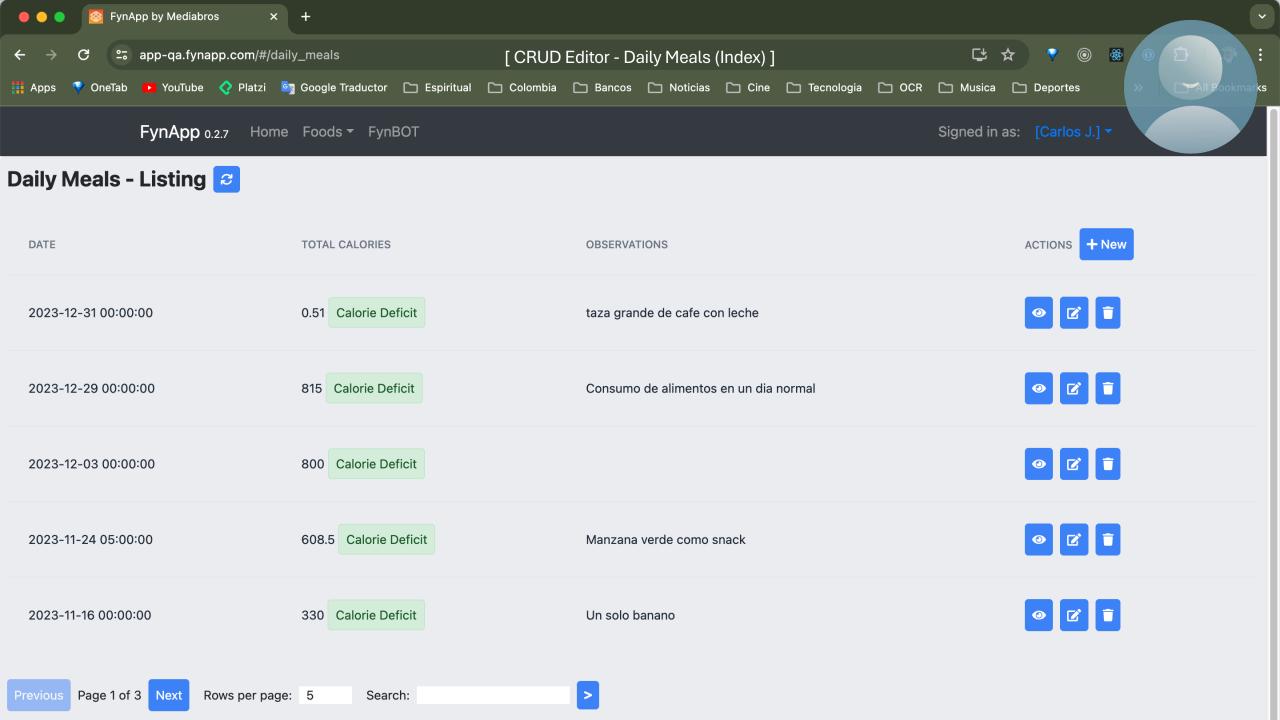
Editor – ents

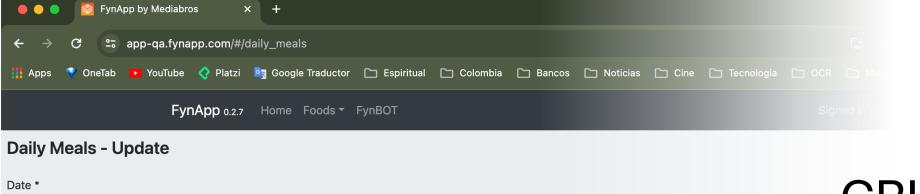
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Observations



Observations







CRUD Editor -Daily Meals

 Data Form with 1-N Relationship section

Consumo de alimentos en un dia normal

12/29/2023

Total Calories

815 Calorie Deficit

Daily Calorie Goal

2247.40

Observations

Update					Cancel			
Meal Ing	redients - Listing 🖸	3						
TYPE	NAME	CALORIES	CALORIES UNIT	SERVING SIZE	SERVING SIZE UNIT	QTY.	TOTAL	
	tortilla de jamón y queso	315	Calories (KCAL)	1	Unit	1	315	nada
	arepa con queso	350	Calories (KCAL)	1	Unit	1	350	nada

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FynApp 0.2.7 Home Foods - FynBOT	



User Profiles - Update

-irst Name *	
Carlos J.	
.ast Name *	User Profile
Ramirez	Editor
Email *	Luitoi
example@email.org	
Birthday *	 Single-record editor
09/27/1966	
Gender *	
Male	
Fraining Days *	
6	
Fraining Hour *	
14:00	
Height *	

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Billing Plan	
Premium	
Active	Lloor Drofilo
Yes	User Profile
OpenAl API Key	Editor
	Luitoi
OpenAl Model (defaults to gpt-3.5-turbo)	
	• API Keys de IA.
Client Since	
08/18/2022, 12:00 AM	 Password Change.
PASWORD 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

}, ſ

"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": "PASWORD CHANGE", "type": "label" },, ...

SUIT

Menu Configuration

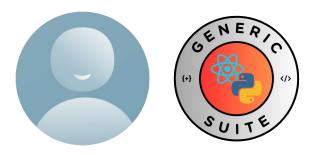
"title": "Home", "location": "top_menu", "type": "nav_link", "path": "/", "element": "HomePage", "hard_prefix": false, "reload": true

}, ...

"title": "Admin", "location": "top_menu", "type": "nav_dropdown", "sec_group": "admin", "sub_menu_options": [

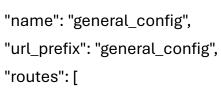
}, ...

"type": "editor", "sec_group": "admin", "title": "Users", "element": "Users_EditorData" }, ...



"title": "Al Assistant", "location": "top_menu", "type": "nav_link", "sec_group": "users", "path": "/chatbot", "element": "Chatbot" }, ...

API Endpoint Configuration



```
{
```

```
"endpoint": "/",
```

"methods": ["GET", "POST", "PUT", "DELETE"],

```
"handler_type": "GenericEndpointHelper",
```

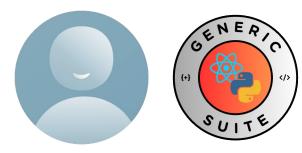
"view_func": "lib.util.generic_endpoint_builder.generic_route_handler",

```
"params": {
```

"json_file": "general_config"

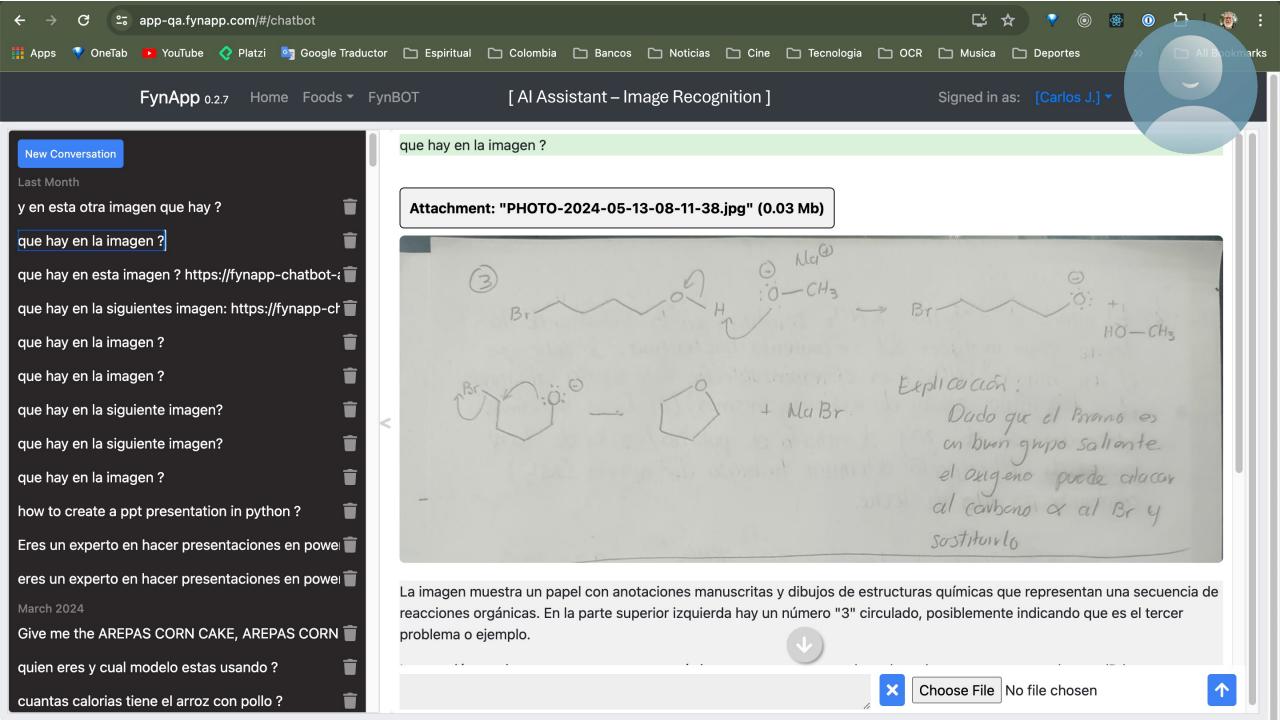
```
}
```

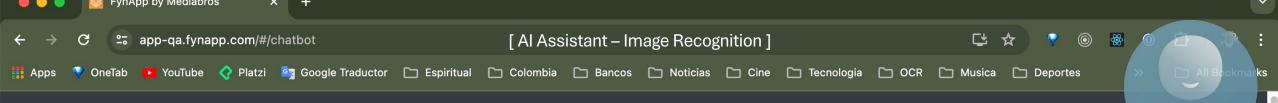
ł,



```
"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"
```

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FynApp 0.2.7 Home Foods - Fyr	BOT [Al Assistant]	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-cr que hay en la imagen ? que hay en la imagen ? que hay en la siguiente imagen? que hay en la imagen ? fres un experto en hacer presentaciones en power march 2024 Give me the AREPAS CORN CAKE, AREPAS CORN	Eres un experto en hacer presentaciones en powerpoint. Quiero que me des los texto charla llamada "La Librería de Software GenericSuite". En esta charla hablaremos so generica y el principio DRY - don't repeat yourself), por qué se creó y cómo funciona facilitar el desarrollo de aplicaciones en Python y React.js, incluyendo funcionalidade Para tu presentación sobre "La Librería de Software GenericSuite", te propongo una que solicitaste. Esta estructura te ayudará a guiar a tu audiencia a través del origen, GenericSuite, resaltando su importancia en el desarrollo de aplicaciones con Python 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	bre el origen (en este caso la programacion a la librería GenericSuite, diseñada para es de IA. estructura con textos para cada sección el propósito y el funcionamiento de
cuantas calorias tiene el arroz con pollo ?		/ > 🔮 🖉 🔯





FynApp 0.2.7 Home Foods - FynBOT

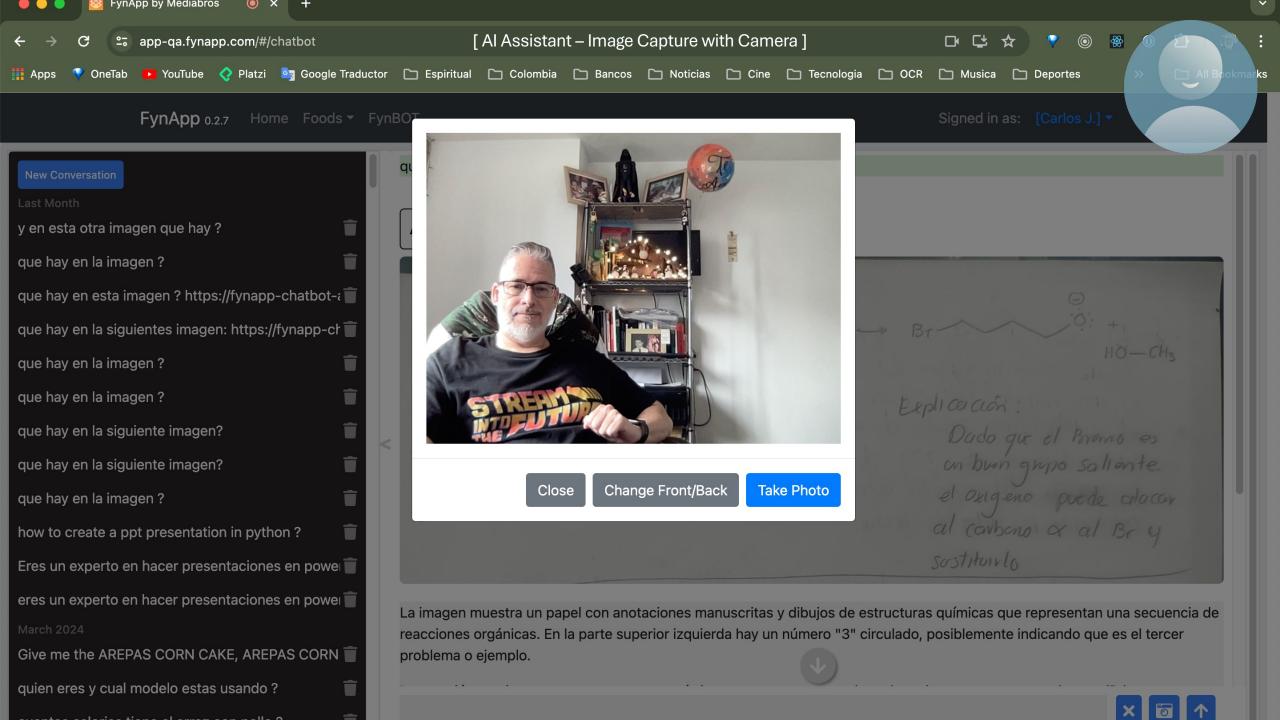
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/tts: 123 /tts: que bruto es este HP Gpt3.5 no joda /tts: gracias mi Dios por tanto /tts: Dios por favor haz que funcione el TTS en QA 👕 /tts: gracias mi Dios porque ya funciona el TTS en 🦷 /tts: gracias mi Dios porque ya funciona el TTS en 🦷 /tts: Gracias Dios mio por este nuevo día. /tts: Gracias Dios mio por este nuevo día. Dios por 👕 /tts: Gracias Dios mio por este nuevo día. Dios por 🔳 /tts: Gracias Dios mio por este nuevo día. Dios por 👕 /tts: Dios por favor ayudame una vez mas. Gracias 👕 que hay en la image? Dame un mapa político a Colombia. /tts: gracias Dios mio porque estoy en recuperacio 🔳

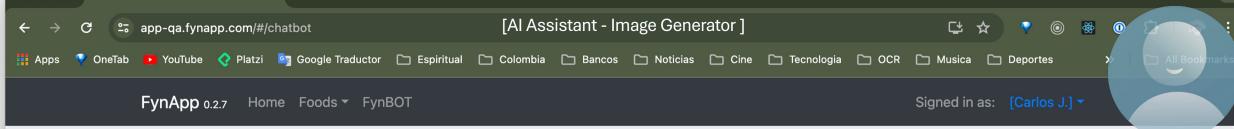
/tts: gracias Dios mio porque estoy en recuperacio 👕 /tts: gracias Dios mio porque estoy en recuperacio 👕 /tts: gracias Dios mio porque estoy en recuperacio 👕



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.



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Apps 👎 OneTab 📭 YouTube 📀 Platzi 🔄 Google Tradi	r 🗅 Espiritual 🗀 Colombia 🗅 Bancos 🗅 Noticias 🗀 Cine 🗀 Tecnologia 🗅 OCR 🗅 Musica 🗅 Deportes 🛛 » 🕒 All Boo
FynApp 0.2.7 Home Foods -	nBOT Signed in as: [Carlos J.] -
uales frutas conforman los frutos rojos ? 👘 🗍	Estás comiendo un mango. Dependiendo del tamaño y la variedad, un mango mediano puede tener alrededor de 150 calorías.
ame la imagen de un jamon serrano español 🛛 🧻	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.
ame la imagen de un kiwi 👕	
ame la imagen de un melon	no es un mango
alorias de la piña 👕	
uantas calorias tiene ese pan de jamon ?	Lo siento, no pude identificar la imagen. ¿Podrías describirme qué estás comiendo?
ovember 2023	estoy comiendo esto
ive me the Arroz cocido calories in KCAL includin	
ue hay en la foto?	Attachment: "image_capture_2023_11_25T19_44_26.jpg" (0.01 Mb)
stoy comiendo esto, que es y cuantas calorias tie	
escribe la foto	
ame la lista de mis ingredientes	
ame la lista de mis ingredientes	
usca en la web todo lo que consigas sobre carlos 👕	
ue contine la imagen y si es de comida, cuantas (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!
ue es y cuantas calorias tiene?	
ue es y cuantas calorias tiene ?	
uantas calorias tiene?	/ > 🎐 🖉 🙆

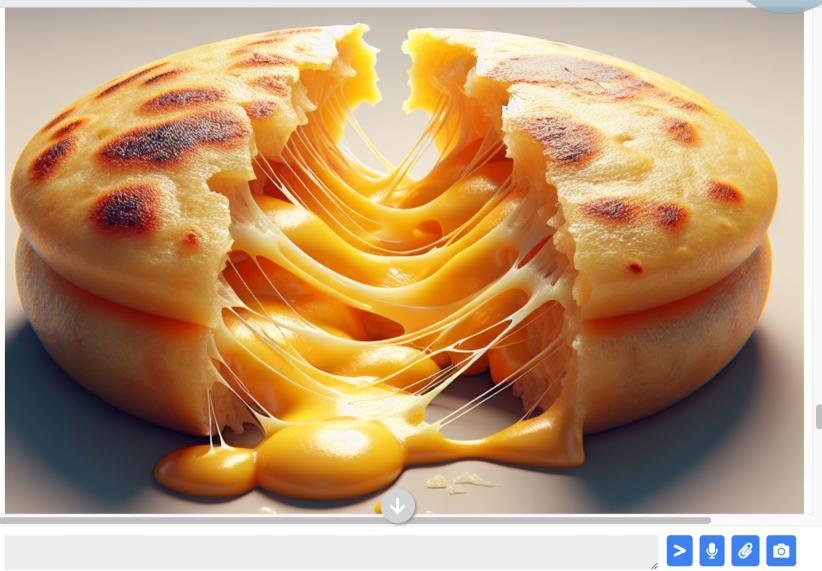


crea imagen de una arepa de huevo colombiana	
crea imagen de una arepa de huevo colombiana	Ī
crea imagen de una arepa de huevo	Ī
crea una imagen de una arepa de huevo	Ì
crea una imagen de una arepa de huevo	Î
dame la imagen de una arepa de huevo	Ī
calorias de la arepa de huevo	Î
calorias de la arepa de huevo	Ī
Haz la imagen de la una arepa de queso amarillo	Î
December 2023	
agregalo a mis ingredientes	Ī
en que fecha agregaste ese desauyno ?	Î
Esta mañana me tomé una taza de café con leche	Ī
que tengo registrado en mis comidas de hoy ?	Î
hoy al levantarme me tome una taza grande de ca	Î
Calorías del arroz con guandú	Î
Calorías del arroz con guandú Hola, hola, hola.	T T

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\leftarrow \rightarrow C \leftrightarrows app-qa.fynapp.com/#/chatbot	[Al Assistant – Code Generator]	
👖 Apps 🔍 OneTab 🕒 YouTube 💸 Platzi 🔄 Google Traductor	🗀 Espiritual 🗀 Colombia 🗀 Bancos 🗀 Noticias 🗀 Cine 🗀 Tecnologia 🗀	OCR 🗅 Musica 🗅 Deportes 🛛 🔉 🕞 All Booking
FynApp 0.2.7 Home Foods - Fyn	BOT	Signed in as: [Carlos J.] ▼
Give me the Arroz cocido calories in KCAL includin	Dame un componente react que muestre un contenido en un pop-up modal u	sando react-bootstrap
Que hay en la foto?		
estoy comiendo esto, que es y cuantas calorias tie 👕	Para mostrar un contenido en un pop-up modal usando React y react-bootstr	ap, puedes usar el siguiente componente:
describe la foto	jsx	Сору
dame la lista de mis ingredientes	innent Deast (weather) from Innently	
dame la lista de mis ingredientes	<pre>import React, { useState } from 'react'; import { Button, Modal } from 'react-bootstrap';</pre>	
busca en la web todo lo que consigas sobre carlos 👕	<pre>function ContentModal() {</pre>	
que contine la imagen y si es de comida, cuantas c 👕	<pre>const [show, setShow] = useState(false);</pre>	
que es y cuantas calorias tiene?	<pre>const handleClose = () => setShow(false); const handleShow = () => setShow(true);</pre>	
que es y cuantas calorias tiene ?	return (
cuantas calorias tiene?	<> <button onclick="{handleShow}" variant="primary"></button>	
Dame un componente react que muestre un conte 👕	Open Modal 	
Tengo eso en mis ingredientes ?	<modal onhide="{handleClose}" show="{show}"> <modal.header closebutton=""></modal.header></modal>	
Give me the Mix Arandanos La Especial calories in 👕	<modal.title>Modal Heading</modal.title> 	
cuantas calorias en totoal tiene la comida de la fot 👕	<modal.body> Modal Content Goes Here</modal.body>	
cuantas calorias tiene ? pista: es un plato navideñc 👕		
Give me the Avena en Hojuelas Toning calories in F 👕		

$oldsymbol{\epsilon} ightarrow \mathbf{C}$ \mathfrak{C} app-qa.fynapp.com/#/chatbot	[AI Assistant – RAG + GPT Functions]	
🛿 Apps 🔍 OneTab 📭 YouTube 🕎 Platzi 🔄 Google Traduct	or 🗀 Espiritual 🗀 Colombia 🗀 Bancos 🗀 Noticias 🗀 Cine 🗀 Tecnologia 🗀	OCR 🗅 Musica 🗀 Deportes 🔹 🖓 All-Book
FynApp 0.2.7 Home Foods - Fy	'nBOT	Signed in as: [Carlos J.] -
dame la imagen de un jamon serrano español 🛛 🧻	dame la lista de mis ingredientes	
dame la imagen de un kiwi 👘	Aquí tienes la lista de tus ingredientes:	
dame la imagen de un melon	- Arepas de maíz La Abuela Carmen (118 kcal por 110g)	
calorias de la piña	- Aceite de Oliva Euro (41.5 kcal por cucharadita)	
cuantas calorias tiene ese pan de jamon ?	- Arepa Frita (302 kcal por 100g)	
Give me the Arroz cocido calories in KCAL includin 👕	- Arepa de Harina PAN (371 kcal por 100g)	
Que hay en la foto?	- Atún en Aceite Euro (228 kcal por porción)	
estoy comiendo esto, que es y cuantas calorias tie 👕	 Atún en Agua Euro (112 kcal por porción) 	
describe la foto	- Avena en Hojuelas Quaker (90 kcal por 13g)	
dame la lista de mis ingredientes	- Avena en Hojuelas Toning (117 kcal por 24g)	
dame la lista de mis ingredientes	- Café negro (2 kcal por taza)	
busca en la web todo lo que consigas sobre carlos 👕	- Cambur / Banano (110 kcal por unidad)	
que contine la imagen y si es de comida, cuantas (👕	- Carne Molida preparada (172 kcal por 80g)	
que es y cuantas calorias tiene?	- Carne de res a la plancha (200 kcal por 100g)	
que es y cuantas calorias tiene ?	- Cocos Superior Corons (83 kest per 200ml)	

	carlosramirez@MacBook-Pro-M	1: ~/desarrollo/mediabros	_repos/github/prico_frontend			て第1
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<i> [webpack-dev-server] On Your <i> [webpack-dev-server] On Your</i></i>						
<pre><i> [webpack-dev-server] On Tour <i> [webpack-dev-server] Content</i></i></pre>			mirez/decarrollo/med	iabros renos/aithub/n	rico frontend/	nuhli
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<i> [webpack-dev-server] 404s wil</i>	l fallback to '/index.html'					
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dules/react-dom/cjs/react-dom.dev	elopment.js as it exceeds the m	ax of 500KB.				
asset main.bundle.js 6.55 MiB [em	itted] (name: main)					
asset favicon.ico 3.78 KiB [emitt						
asset index.html 2.48 KiB [emitte						
orphan modules 1.69 MiB [orphan]		[Running	the Frontend in the loca	al environment]		
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	ties-legacy/index.json 1.24 KiB	[built] [code a	enerated]			
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Stage: dev Port: 5001							
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	(APP_DIR.APP_MAIN_	_FILE): app.main					
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1				aunning the backend in			
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Get the IP address	-						
		st' command. Trying with	'ping'				
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Stopping the local backend se	rver over a se	ecure connect [.]	ion.							
Error response from daemon: N Error response from daemon: N Error response from daemon: N Error response from daemon: N	o such contair o such contair	ner: sls-backø ner: sls-ngin:	end K		[Running	the Back	end in the loc	al enviro	onment]	
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Loading .env environment vari			9porc	5001						
INFO: Will watch for chan INFO: Uvicorn running on	ges in these d				/desarrollo/medic	bros_repo	os/github/pr	ico_back	end']	
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Do you want to edit it (y/n)?

• • •	$\leftarrow \rightarrow$	\sim CJRD-WRK (Workspace)	
! template.yml $ imes$			8 D A
<pre>tmp > generate_sam_dynamodb > ! template.y 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:</pre>	nl		
12ReadCapacityUnits: 113WriteCapacityUnits: 1			
14AiChatbotConversationsTable:15Type: AWS::DynamoDB::Table16Properties:17TableName: prico_ai_chatbot_cor18AttributeDefinitions:19- AttributeName: id20AttributeType: S21KeySchema:	versations		
22- AttributeName: id23KeyType: HASH24ProvisionedThroughput:25ReadCapacityUnits: 126WriteCapacityUnits: 127GeneralConfigTable:28Type: AWS::DynamoDB::Table29Properties:30TableName: prico_general_config31AttributeDefinitions:		[Generating the DynamoDB SAM definitions f	rom the JSON config files]
32- AttributeName: id33AttributeType: S34KeySchema:			

Tools Used

- Github
- AWS
- MongoDB Atlas
- ChatGPT, Claude
- Atlassian Jira
- iTerm2
- VSC, Cursor
- Canva
- Mkdocs, ReadTheDocs



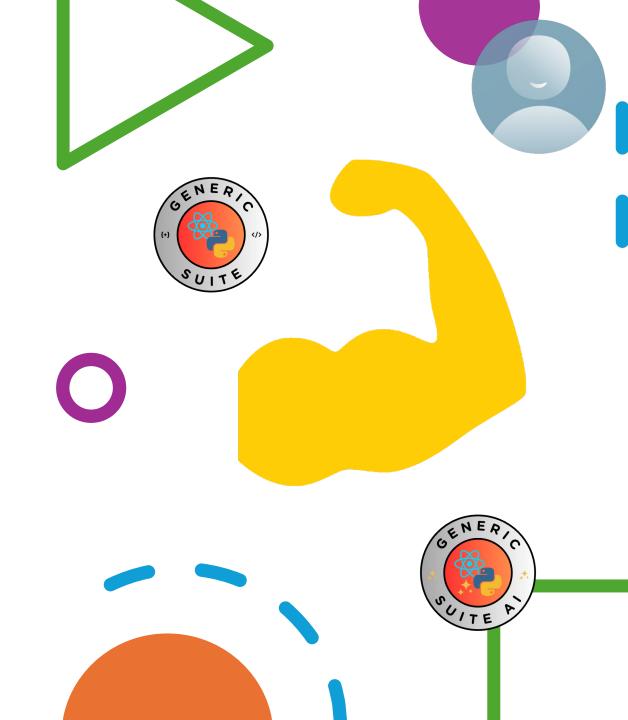
Commitment



- 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.
- <u>https://www.securityweek.com/xz-utils-backdoor-attack-brings-another-similar-incident-to-light/</u>

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.
- Believe in yourself.



Q&A

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







Contact

Carlos J. Ramírez



- Web: www.carlosjramirez.com
- LinkedIn:

www.linkedin.com/in/carlosjramirez

• Github: github.com/tomkat-cr

Documentation



• genericsuite.carlosjramirez.com