



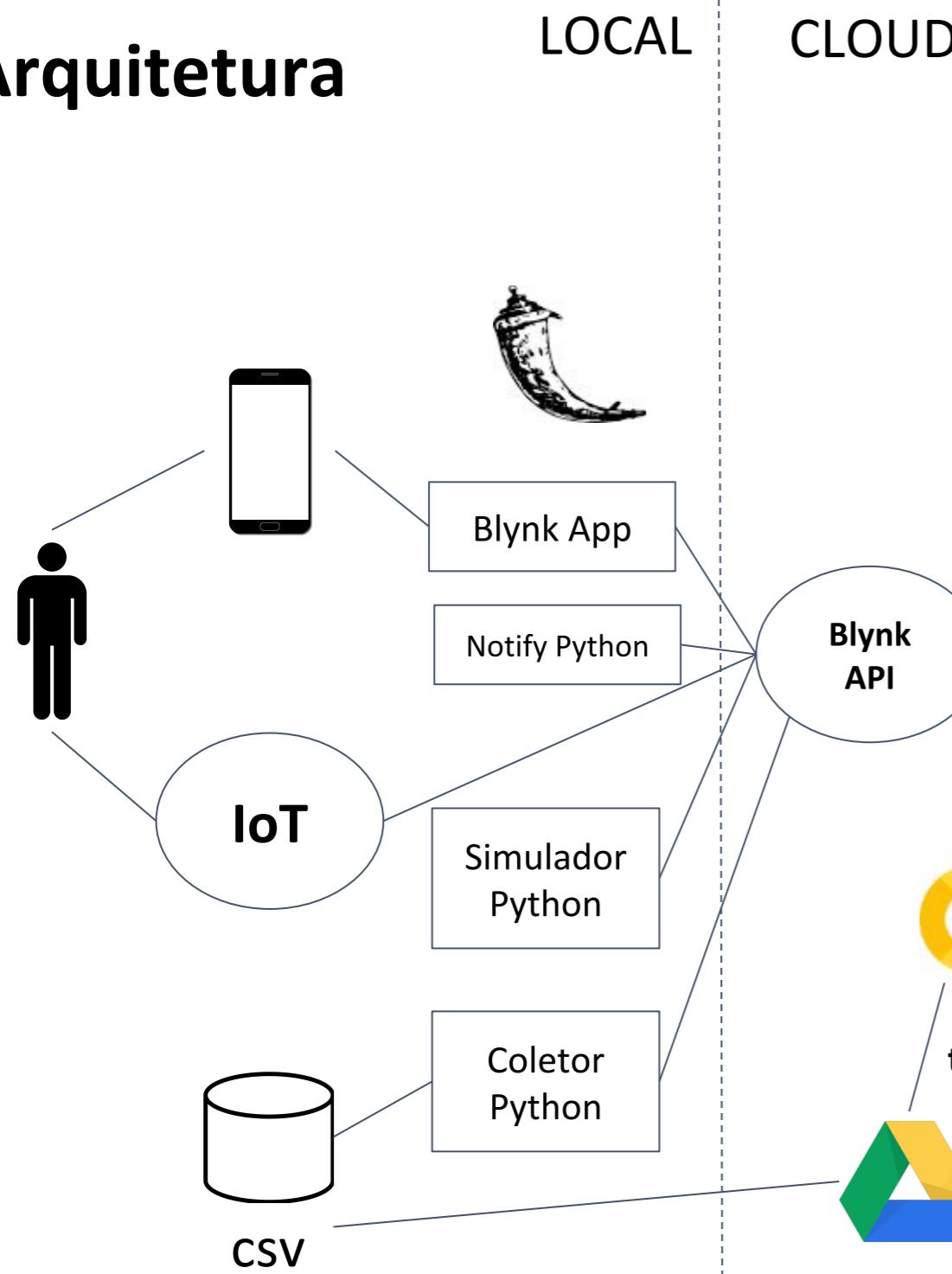
ActivePresenter

Tutorial do framework Flask

PCS3100

Prof. Reginaldo Arakaki
Victor Hayashi
Tiago Fujii

Arquitetura



CLOUD

Tutoriais

1. Blynk: Cloud IoT com interface Mobile
 - a. Mobile App Android/iOS + HTTP request
 - b. Simular comportamento IoT com Python
 - c. Usar API para notificação no celular
2. Coleta de Dados
 - a. Coletor Python
 - b. Ambiente Google Colab e Google Drive
3. Servidor Local e Tunelamento
 - a. Servidor local no Flask
 - b. Tunelamento no ngrok



Características/vantagens do Flask

- Microframework web para Python
- Permite criar páginas e aplicações web
- Caixa branca – maior liberdade de desenvolvimento
- Menos monolítico que Django
- Microsserviços



Pré-requisito: Instalação do Python

Instalar Python3: <https://www.python.org/downloads/>

(Obs: Para seguir este tutorial, adicionar o Python ao PATH do Windows para executar os comandos do Python no terminal)





Instalar Flask

Abrir um prompt de comando e digitar o comando:

```
pip install Flask
```

C:\Users\tiago>p_



```
pip install Flask
```



Microsoft Windows [versão 10.0.18363.720]

(c) 2019 Microsoft Corporation. Todos os direitos reservados.

C:\Users\tiago>pip install Flask

Collecting Flask

Using cached https://files.pythonhosted.org/packages/9b/93/628509b8d5dc749656a9641f4caf13540e2cdec85276964ff8f43bbb1d3b/Flask-1.1.1-py2.py3-none-any.whl

Requirement already satisfied: Werkzeug>=0.15 in c:\users\tiago\appdata\local\programs\python\python38-32\lib\site-packages (from Flask) (1.0.1)

Requirement already satisfied: click>=5.1 in c:\users\tiago\appdata\local\programs\python\python38-32\lib\site-packages (from Flask) (7.1.1)

Requirement already satisfied: itsdangerous>=0.24 in c:\users\tiago\appdata\local\programs\python\python38-32\lib\site-packages (from Flask) (1.1.0)

Requirement already satisfied: Jinja2>=2.10.1 in c:\users\tiago\appdata\local\programs\python\python38-32\lib\site-packages (from Flask) (2.11.1)

Requirement already satisfied: MarkupSafe>=0.23 in c:\users\tiago\appdata\local\programs\python\python38-32\lib\site-packages (from Jinja2>=2.10.1->Flask) (1.1.1)

Installing collected packages: Flask

Successfully installed Flask-1.1.1

WARNING: You are using pip version 19.2.3, however version 20.0.2 is available.

You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\tiago>



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Hello World

Criar arquivo index.py

Copiar o seguinte conteúdo no arquivo:

```
from flask import Flask  
app = Flask(__name__)  
  
@app.route("/")  
def hello():  
    return "Hello World!"  
  
if __name__ == "__main__":  
    app.run()
```



Cria um callback para a função imediatamente a seguir (hello) quando o sub-domínio URL "/" for requisitado

Salvar arquivo index.py na pasta Documentos

Prompt de Comando

Microsoft Windows [versão 10.0.18363.720]

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C:\Users\tiago>cd Documents

C:\Users\tiago\Documents>

cd Documents



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Microsoft Windows [versão 10.0.18363.720]

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C:\Users\tiago>cd Documents

C:\Users\tiago\Documents>set FLASK_APP=index.py

C:\Users\tiago\Documents>

set FLASK_APP=index.py

Obs: no Linux, utilizar: export FLASK_APP=index.py



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C:\Users\tiago>cd Documents

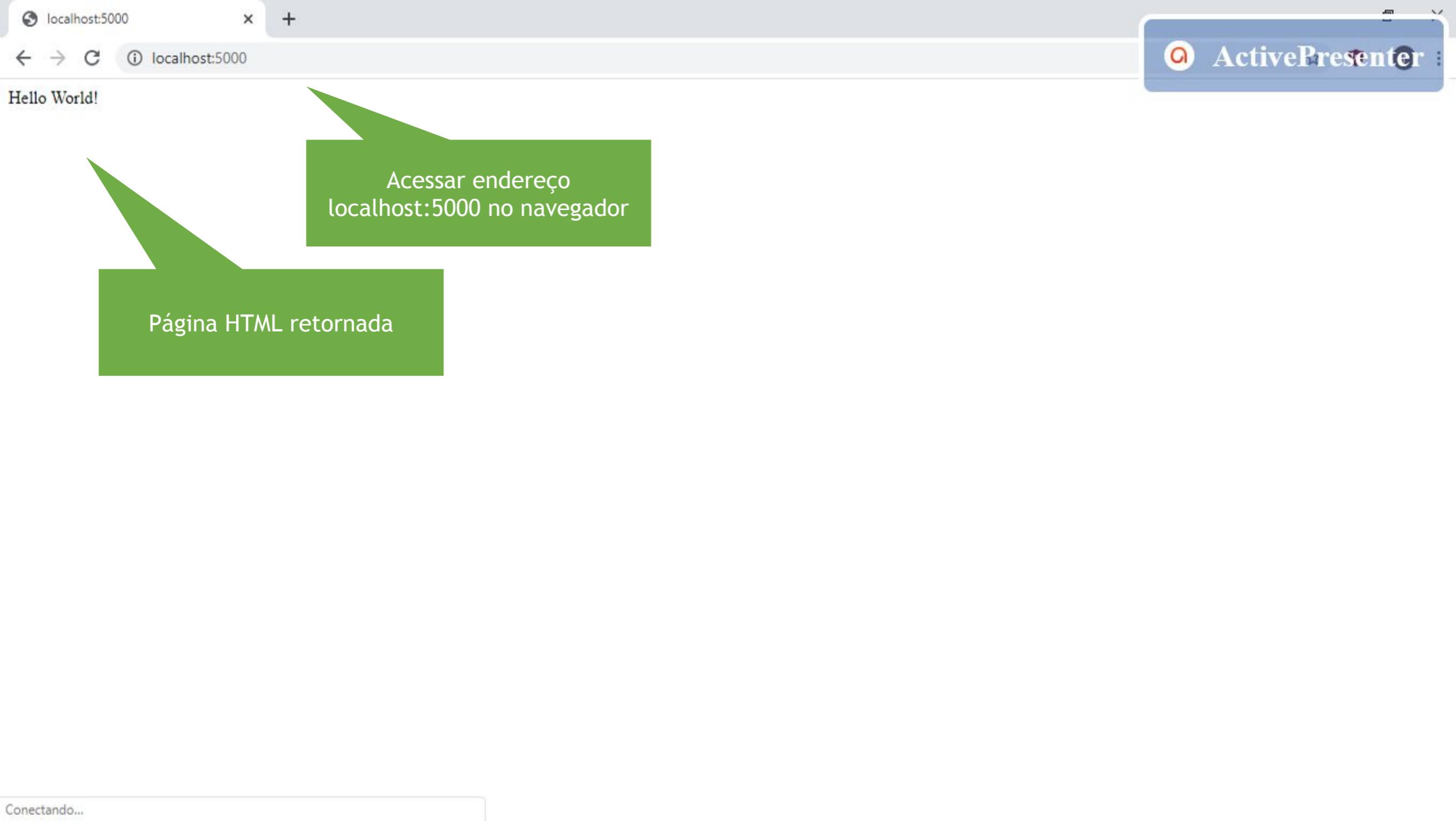
C:\Users\tiago\Documents>set FLASK_APP=index.py

```
C:\Users\tiago\Documents>flask run
 * Serving Flask app "index.py"
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployment.
   Use a production WSGI server instead.
 * Debug mode: off
 * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

flask run

Servidor local executando na
porta 5000



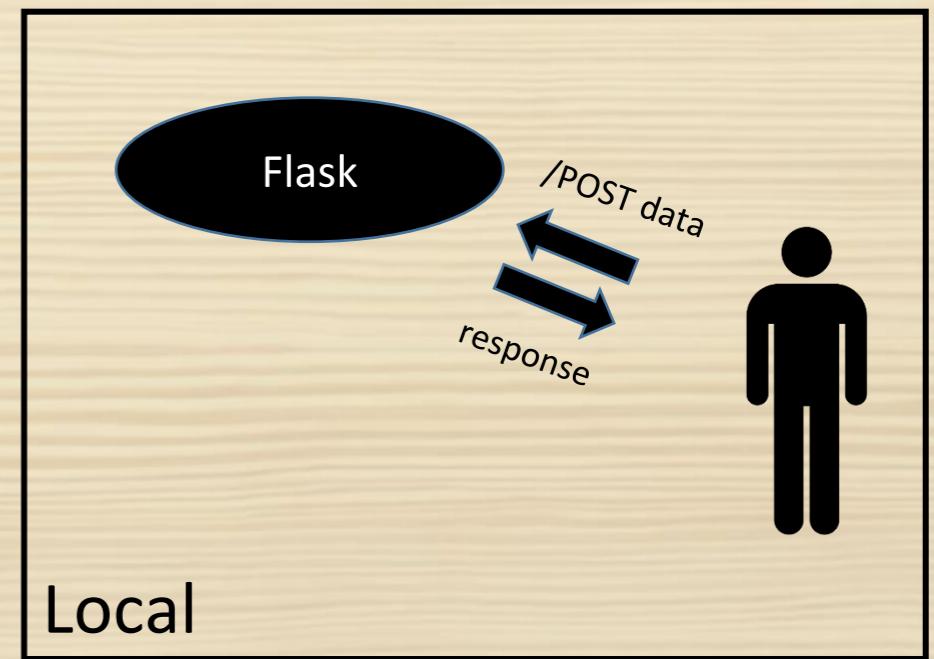


Motivação:

- Desenvolvimento independente
- Permite integração entre serviços

Webhook API:

1. Usuário faz requisição por meio de HTTP Post, enviando ao servidor data.json
2. Flask faz o tratamento de data.json, e retorna response.json



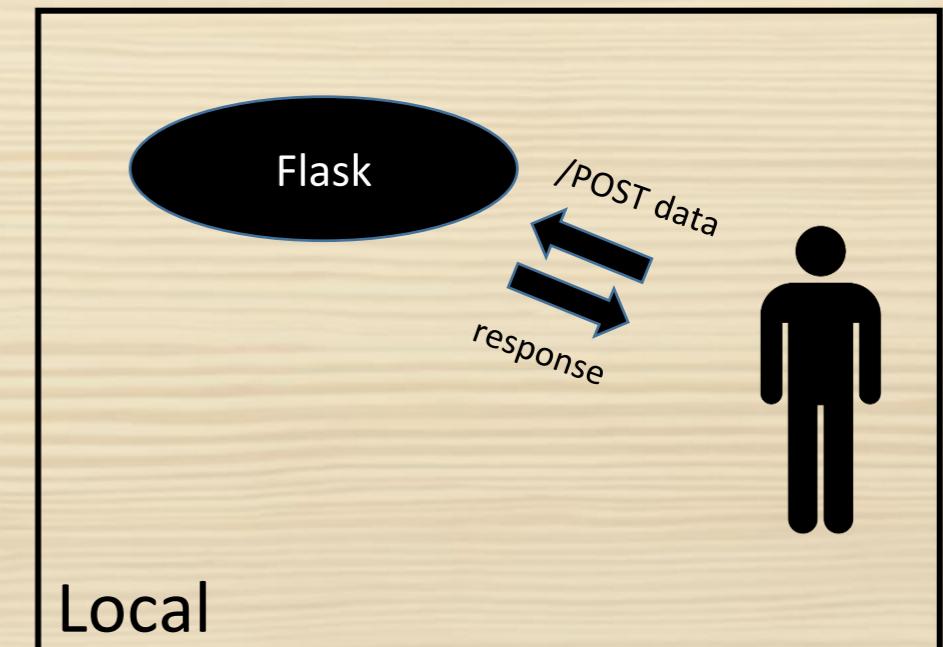
Criar uma API em Flask

Modificar o arquivo index.py

```
from flask import Flask, request  
  
app = Flask(__name__)  
  
@app.route('/', methods=['POST'])  
def webhook():  
    data = request.get_json(force=True)  
    return 'Recebido: {}\n'.format(data['data'])  
  
if __name__ == "__main__":  
    app.run()
```

Métodos HTTP permitidos

Transforma dados recebidos pelo POST em dicionário



Microsoft Windows [versão 10.0.18363.720]
(c) 2019 Microsoft Corporation. Todos os direitos reservados.

C:\Users\tiago>cd Documents

C:\Users\tiago\Documents>set FLASK_APP=index.py

C:\Users\tiago\Documents>flask run
* Serving Flask app "index.py"
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [01/Apr/2020 17:13:32] "GET / HTTP/1.1" 200 -

Pressione Ctrl+C para
abortar o servidor Flask

Microsoft Windows [versão 10.0.18363.720]
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C:\Users\tiago>cd Documents

C:\Users\tiago\Documents>set FLASK_APP=index.py

```
C:\Users\tiago\Documents>flask run
 * Serving Flask app "index.py"
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployment.
   Use a production WSGI server instead.
 * Debug mode: off
 * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [01/Apr/2020 17:13:32] "GET / HTTP/1.1" 200 -
```

```
C:\Users\tiago\Documents>flask run
 * Serving Flask app "index.py"
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployment.
   Use a production WSGI server instead.
 * Debug mode: off
 * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

flask run



Enviar requisição à API

Abrir um segundo terminal, e digitar o comando:

```
curl -H \Content-Type:application/json\ -X POST --data "{\"data\":\"123\"}" http://localhost:5000/
```

Obs.: No Linux, utilizar comando:

```
curl -H \Content-Type: application/json\ -X POST --d "{\"data\":\"123\"}" http://localhost:5000/
```

Prompt de Comando - flask run

```
Microsoft Windows [versão 10.0.18363.720]
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C:\Users\tiago>cd Documents
C:\Users\tiago\Documents>set FLASK_APP=index.py

C:\Users\tiago\Documents>flask run
* Serving Flask app "index.py"
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.

    Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
123
127.0.0.1 - - [01/Apr/2020 19:59:55] "POST / HTTP/1.1" 200 -
```

Selecionar Prompt de Comando

```
Microsoft Windows [versão 10.0.18363.720]
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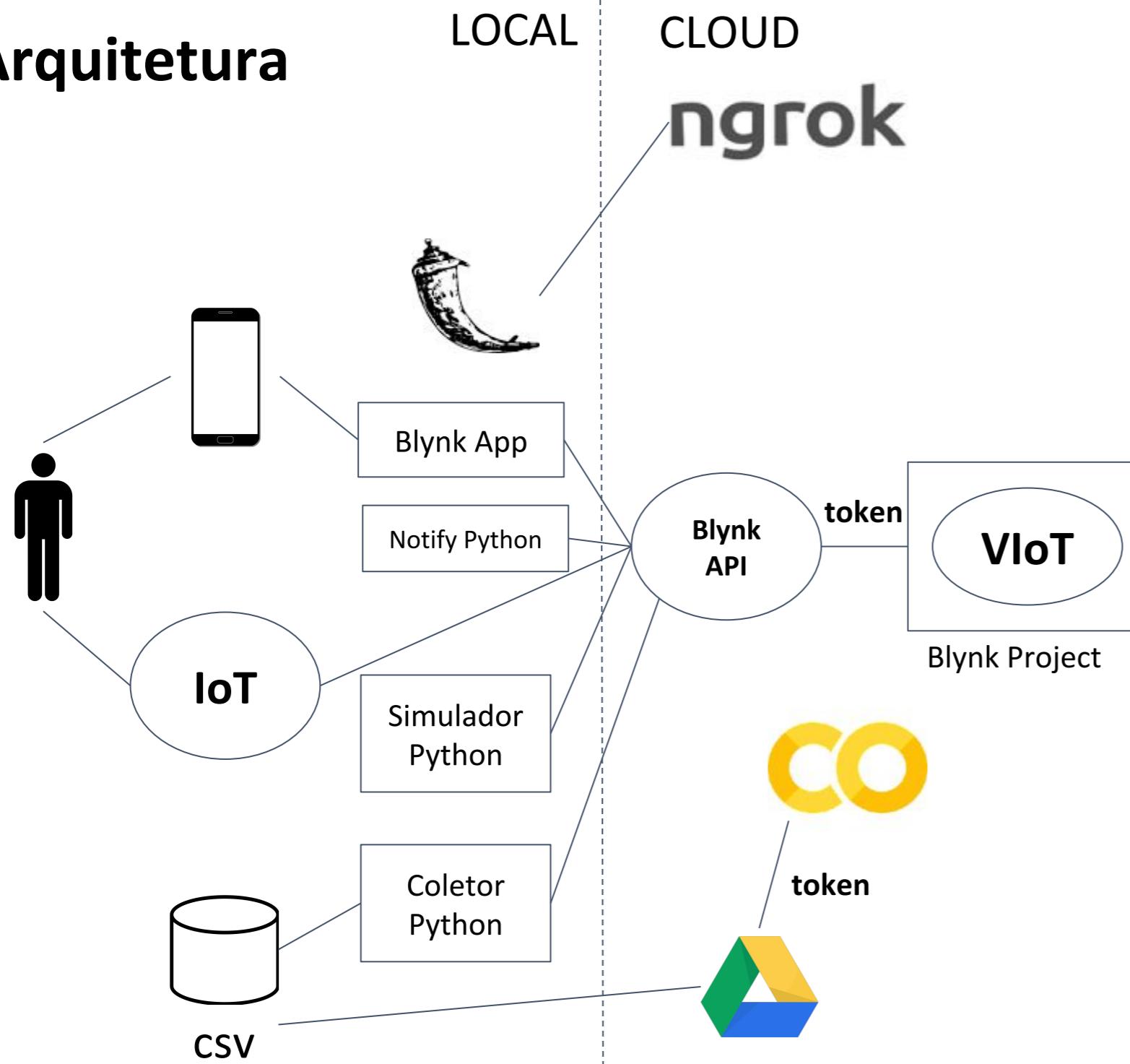
C:\Users\tiago>curl -H \Content-Type:application/json\ -X POST --data \\"data\": 123\}" http://localhost:5000/
Recebido: 123

C:\Users\tiago>
```

Enviar comando curl

Resposta do Flask: "Recebido: 123"

Arquitetura



Tutoriais

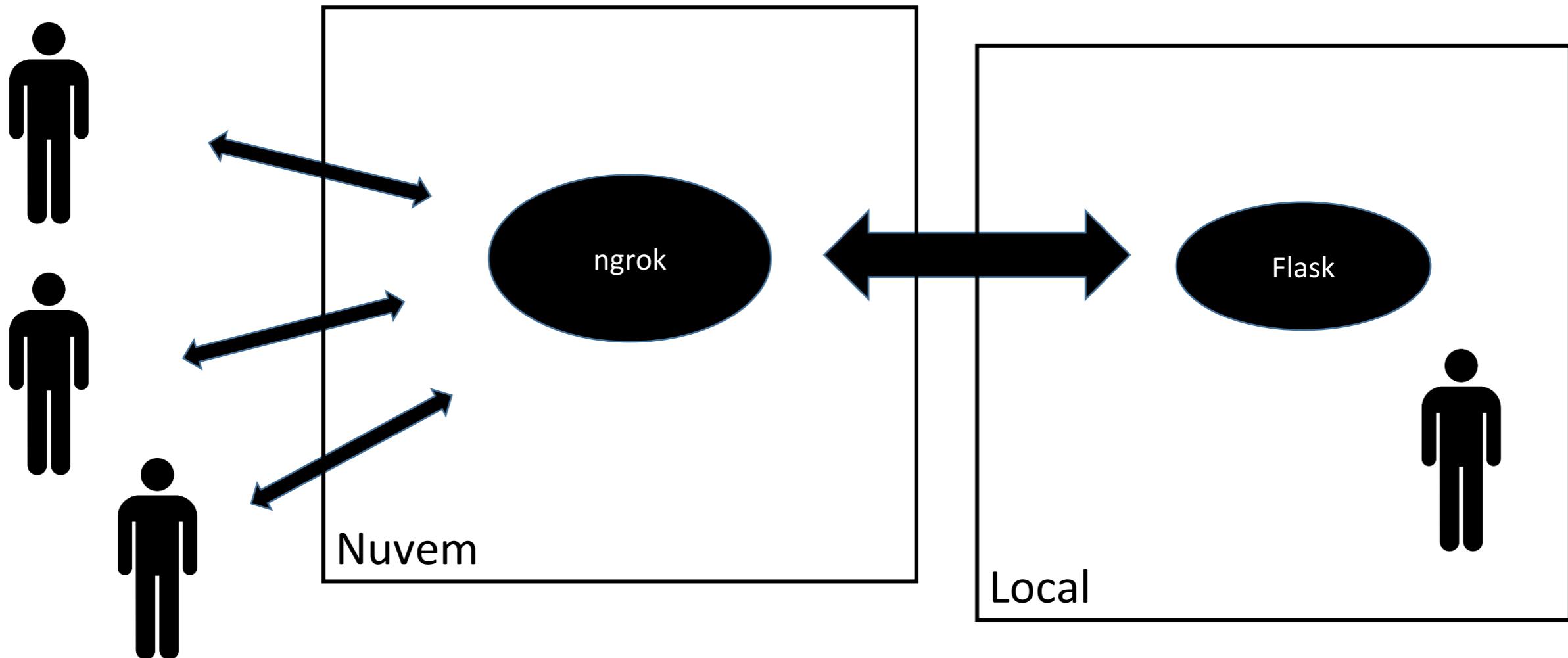
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 - c. Usar API para notificação no celular
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Fazer tunelamento na nuvem

O servidor local criado no Flask permite comunicação apenas entre computadores na mesma rede local

Para fazer comunicação entre os membros do grupo ou outros serviços web, pode-se utilizar uma ferramenta de tunelamento como o ngrok: <https://ngrok.com/>



<https://katesapp.ngrok.io>

Welcome to Kate's Site!

It's currently under development...

[Check back soon!](#)

```
$ ./ngrok http 3000  
ngrok by @inconshreveable
```

Session Status	online
Account	Kate Libby (Plan: Pro)
Web Interface	http://127.0.0.1:4040
Forwarding	http://katesapp.ngrok.io → localhost:3000
Forwarding	https://katesapp.ngrok.io → localhost:3000

[Crie uma conta no ngrok](#)

Public URLs for testing your chatbot.

Spend more time programming. One command for an instant, secure URL to your localhost server through any NAT or firewall.

[Get started for free →](#)

slack



GitHub



SendGrid



twilio



ATLASSIAN

As well as [Amazon Web Services](#) and many more.

Ask a question

Siga as instruções para baixar e autenticar o ngrok

Dashboard

Download

Doc



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Explore ngrok

Status

Reserved

Auth

Team

Admin

Billing

Want more from ngrok?

[Upgrade now](#)

Setup & Installation

1 Download ngrok

ngrok is easy to install. Download a single binary with zero run-time dependencies.

[Mac OS X](#) [Download for Windows](#)[Linux](#) [Mac \(32-Bit\)](#) [Windows \(32-Bit\)](#) [Linux \(ARM\)](#)[Linux \(32-Bit\)](#) [FreeBSD \(64-Bit\)](#) [FreeBSD \(32-Bit\)](#)

2 Unzip to install

On Linux or OSX you can unzip ngrok from a terminal with the following command. On Windows, just double click ngrok.zip.

```
$ unzip /path/to/ngrok.zip
```

Most people keep ngrok in their user folder or set an alias for easy access.

Dashboard

Download

Doc

No Windows, substituir ./ngrok pelo comando ngrok.exe

3 Connect your account

Running this command will add your account's auth token to your ngrok.yml file. This will give you more features and all open tunnels will be listed here in the dashboard.

```
$ ./ngrok authtoken
```

4 Fire it up

Read [the documentation](#) on how to use ngrok. Try it out by running it from the command line:

```
$ ./ngrok help
```

To start a HTTP tunnel on port 80, run this next:

```
$ ./ngrok http 80
```

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C:\Users\tiago>cd Downloads

C:\Users\tiago\Downloads>

Navegar para a pasta em que
o ngrok.exe foi extraido



Microsoft Windows [versão 10.0.18363.720]

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C:\Users\tiago>cd Downloads

C:\Users\tiago\Downloads>ngrok.exe authtoken



ngrok.exe authtoken [código de autenticação]



Prompt de Comando

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C:\Users\tiago>cd Downloads

C:\Users\tiago\Downloads>ngrok.exe auth token

Authtoken saved to configuration file: C:\Users\tiago/.ngrok2/ngrok.yml

C:\Users\tiago\Downloads>ngrok.exe http 5000

ngrok.exe http 5000



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ngrok by @inconshreveable

Session Status

online
(Plan: Free)
2.3.35
United States (us)
<http://127.0.0.1:4040>
<http://8018c13b.ngrok.io> -> <http://localhost:5000>
<https://8018c13b.ngrok.io> -> <http://localhost:5000>

Connections

ttl	opn	rt1	rt5	p50	p90
0	0	0.00	0.00	0.00	0.00



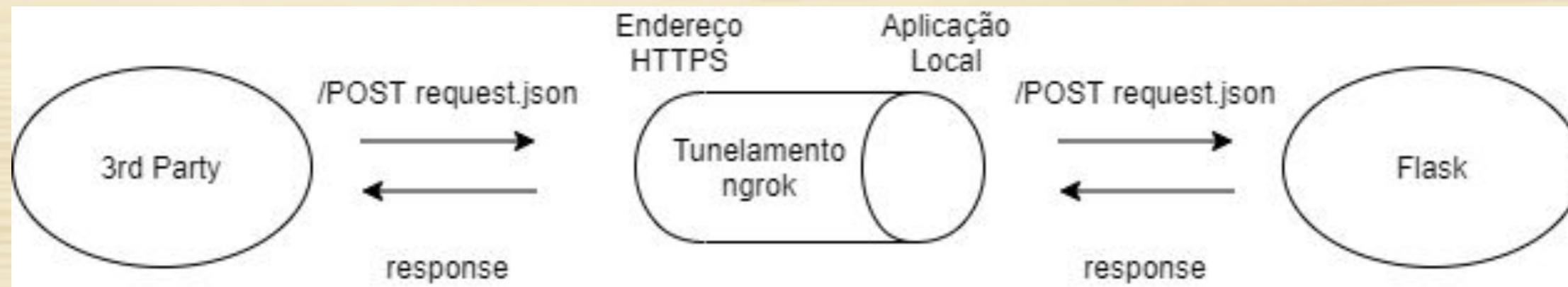
ngrok inicia tunelamento da porta local
5000 para um endereço web temporário



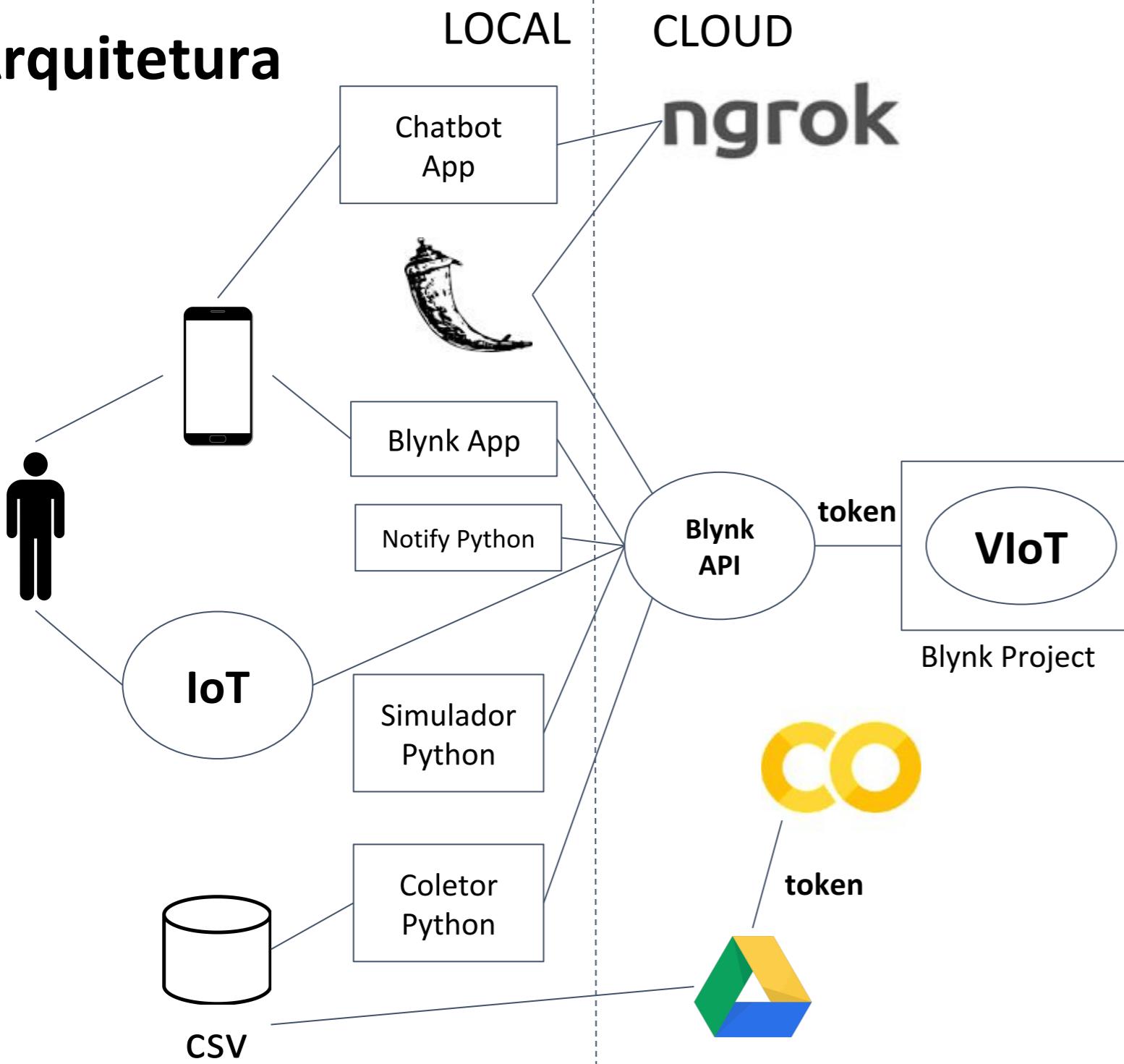
Comunicação com o servidor Flask

Outros membros do grupo agora podem enviar POST requests para o endereço https:

```
curl -H \Content-Type: application/json\ -X POST -d "{\"data\":\"123\"}" https://8018c13b.ngrok.io
```



Arquitetura



Tutoriais

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DialogFlow

- Plataforma de processamento de linguagem natural do Google
- Permite criação de chatbots
- Integração com Facebook Messenger, Telegram, LINE, Google Assistant



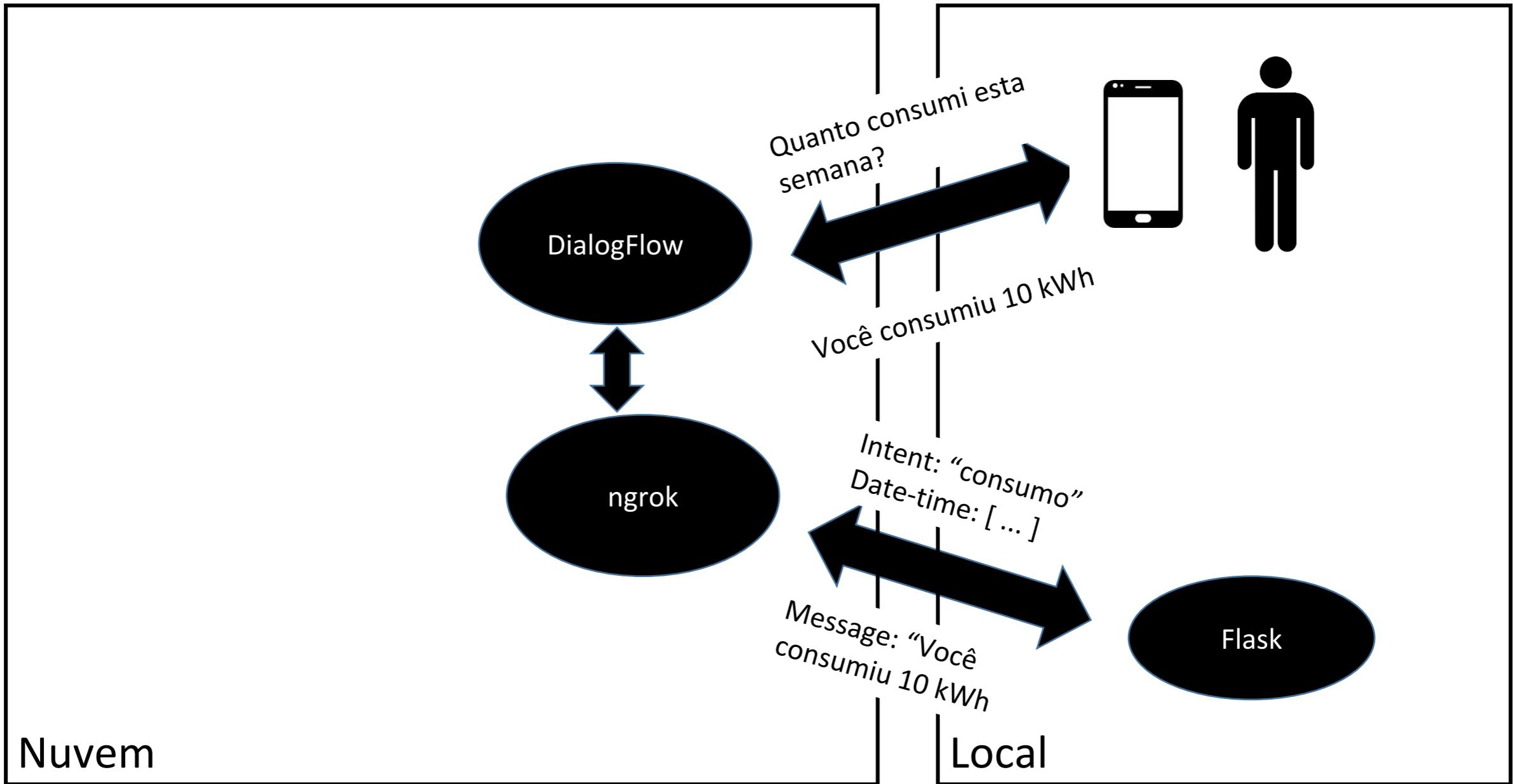


Integração do DialogFlow com Flask+ngrok

Vantagem: gerar respostas customizadas de acordo com a requisição do usuário (busca em banco de dados, ativação de controlador)

Exemplo: Chatbot para monitoramento do consumo energético residencial

- 1.Uusuário pergunta para chatbot (DialogFlow) "Quanto consumi esta semana?"
- 2.DialogFlow processa intenção do usuário e faz requisição POST para endereço do ngrok
- 3.ngrok faz tunelamento para o servidor Flask
- 4.Flask consulta base de dados pelo consumo desta semana
- 5.Flask retorna para o ngrok a mensagem: "Você consumiu 10 kWh esta semana"
- 6.ngrok retorna para o DialogFlow: "Você consumiu 10 kWh esta semana"





Criando um Chatbot do Google

1. Baixar os arquivos index.py e response.json disponibilizados e colocar pasta Documents
 - a) Link para os arquivos:
https://drive.google.com/drive/folders/1nR0NSiuWN8BSCGnwKjetf_bluunfXqfa?usp=sharing
2. Reiniciar o flask run
3. Ir no site do DialogFlow: <https://dialogflow.com/>
4. Criar uma conta e ir no console: <https://dialogflow.cloud.google.com/>

dialogflow.cloud.google.com/#/newAgent

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Dialogflow

Agent name

CREATE

Try it now

BoaEnergia

pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

DEFAULT LANGUAGE

pt-BR

DEFAULT TIME ZONE

(GMT-3:00) America/Buenos_Aires

Please use test console above to try a sentence.

Clique com o botão esquerdo do mouse aqui

GOOGLE PROJECT

Create a new Google project

Enables Cloud functions, Actions on Google and permissions management.

AGENT TYPE

Set as Mega Agent

Combine multiple Dialogflow agents (i.e. sub agents) into a single agent (i.e. mega agent).

See how it works in Google Assistant.

Dialogflow

BoaEnergia

Create new agent

View all agents

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Agent name

CREATE

Try it now

DEFAULT LANGUAGE English – en Primary language for your agent. Other languages can be

DEFAULT TIME ZONE (GMT-3:00) America/Buenos_Aires Date and time requests are resolved using this timezone.

See how it works in Google Assistant.

Clique com o botão esquerdo do mouse aqui



BoaEnergia

pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

TesteBot

CREATE

Try it now



Clique com o botão
esquerdo do mouse aqui

DEFAULT LANGUAGE

Portuguese (Brazilian) — pt-br

Primary language for your agent. Other languages can be added later.

(GMT-3:00) America/Buenos_Aires

Date and time requests are resolved using this timezone.

GOOGLE PROJECT

Create a new Google project

Enables Cloud functions, Actions on Google and permissions management.

AGENT TYPE

 Set as Mega Agent

Combine multiple Dialogflow agents (i.e. sub agents) into a single agent (i.e. mega agent).

Please use test console above to try a sentence.

See how it works in [Google Assistant](#).



TesteBot

pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

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Prebuilt Agents

Intents

CREATE INTENT

Search intents

Clique com o botão
esquerdo do mouse aqui

Default Fallback Intent

Default Welcome Intent

No regular intents yet. [Create the first one.](#)

Intents are mappings between a user's queries and actions fulfilled by your software. [Read more here.](#)

Before you start, check out [Prebuilt Agents](#), a collection of agents developed by the Dialogflow team.

Try it now



ⓘ Please use test console above to try a sentence.

See how it works in [Google Assistant](#).

Agent training completed

OK



TesteBot

pt-BR

Intents



Entities



Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Intent name

SAVE

Try it now



Contexts



Events



Training phrases



Train the intent with what your users will say



Provide examples of what your users will say to trigger this intent in natural language. Add variations and synonyms to increase the accuracy of intent matching. [Learn more](#)

Clique com o botão esquerdo do mouse aqui

[ADD TRAINING PHRASES](#)

Action and parameters



Extract the action and parameters



Parameters are specific values extracted from a user's request when entities are matched. The values captured by parameters can be used in fulfillment, or in building a

Please use test console above to try a sentence.

See how it works in [Google Assistant](#).



TesteBot

pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Intent name

SAVE

Try it now



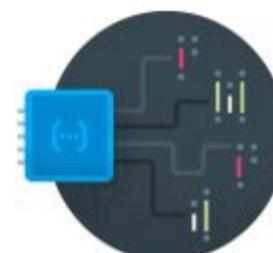
Adicionar frases quanto
consumi este mes?
e
quanto consumi hoje?

Training phrases

Search training phra

" Add user expression

Action and parameters



Extract the action and parameters

Parameters are specific values extracted from a user's request when entities are matched. The values captured by parameters can be used in fulfillment, or in building a response. If you mark parameters as required, Dialogflow will prompt the user if their values were not extracted from their initial request. [Learn more](#)

ADD PARAMETERS AND ACTION

Please use test console above to try a sentence.

See how it works in [Google Assistant](#).

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Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Intent name

SAVE

Try it now

Extract the action and parameters

Parameters are specific values extracted from a user's request when entities are matched. The values captured by parameters can be used in fulfillment, or in building a response. If you mark parameters as required, Dialogflow will prompt the user if their values were not extracted from their initial request. [Learn more](#)

MANAGE PARAMETERS AND ACTION

Responses

Clique com o botão esquerdo do mouse aqui

Execute and respond to the user

Respond to your users with a simple message, or build custom rich messages for the integrations you support.

[Learn more](#)

ADD RESPONSE

Fulfillment

Please use test console above to try a sentence.

See how it works in [Google Assistant](#).



TesteBot

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Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Intent name

SAVE

Try it now



" quanto consumi hoje?

" quanto consumi este mes?

Action and parameters

Enter action name

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST
<input type="checkbox"/>	date-time	@sys.date-time	\$date-time	<input type="checkbox"/>
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

Responses

Execute and respond to the user

Please use test console above to try a sentence.

 See how it works in [Google Assistant](#).

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Dialogflow

TesteBot

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Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

consumo

SAVE

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST
<input type="checkbox"/>	date-time	@sys.date-time	Sdate-time	<input type="checkbox"/>
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

Responses

Execute and respond to the user

Respond to your users with a simple message, or build custom rich messages for the integrations you support.

[Learn more](#)

[ADD RESPONSE](#)

Clique com o botão esquerdo do mouse aqui

Fulfillment

Try it now

Agent

USER SAYS

quanto consumi esta semana?

COPY CURL

DEFAULT RESPONSE

Not available

INTENT

consumo

ACTION

Not available

PARAMETER

date-time

VALUE

```
{ "startDate": "2020-03-29T00:00:00-03:00", "endDate": "2020-04-04T23:59:59-03:00" }
```

DIAGNOSTIC INFO



TesteBot



pt-BR



Intents



Entities



Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

● consumo



SAVE



Try it now



<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>
--------------------------	------------	--------------	-------------	--------------------------

+ New parameter

Responses



Execute and respond to the user

Respond to your users with a simple message, or build custom rich messages for the integrations you support.
[Learn more](#)

[ADD RESPONSE](#)

Fulfillment

 Enable webhook call for this intent Enable webhook call for slot filling

Agent

USER SAYS
quanto consumi esta semana?

COPY CURL

DEFAULT RESPONSE
Not availableINTENT
consumoACTION
Not availablePARAMETER
date-time
VALUE
{"startDate": "2020-03-29T00:00:00-03:00",
"endDate": "2020-04-04T23:59:59-03:00"}
DIAGNOSTIC INFO

dialogflow.cloud.google.com/#/agent/testebot-ofrpkj/editIntent/be0a591e-3b02-4128-b17f-d45820bc99d6/ ActivePresenter

Dialogflow

TesteBot pt-BR

- Intents**
- Entities
- Knowledge [beta]
- Fulfillment
- Integrations
- Training
- Validation
- History
- Analytics
- Prebuilt Agents

● consumo

date-time @sys.date-time Sdate-time

Enter name Enter entity Enter value

+ New parameter

Responses

Execute and respond to the user

Respond to your users with a simple message, or build custom rich messages for the integrations you support.

Learn more

ADD RESPONSE

Fulfillment

Enable webhook call for this intent

Enable webhook call for slot filling

Try it now

Agent

USER SAYS

quanto consumi esta semana?

COPY CURL

DEFAULT RESPONSE

Not available

INTENT

consumo

ACTION

Not available

PARAMETER

date-time

VALUE

{ "startDate": "2020-03-29T00:00:00-03:00", "endDate": "2020-04-04T23:59:59-03:00" }

DIAGNOSTIC INFO

Clique com o botão esquerdo do mouse aqui

Dialogflow Ações e parâmetros | Documento google assistant sdk - Make di Dialogflow webhook format | webhook/routes.py at master ActivePresenter

dialogflow.cloud.google.com/#/agent/testebot-ofrpkj/editIntent/be0a591e-3b02-4128-b17f-d45820bc99d6/ Try it now

Dialogflow

TesteBot pt-BR Intents Entities Knowledge [beta] Fulfillment Integrations Training Validation History Analytics Prebuilt Agents

consumo

date-time @sys.date-time Sdate-time Enter name Enter entity + New parameter

Clique com o botão esquerdo do mouse aqui

Responses Execute and respond to the user ADD RESPONSE

Fulfillment Enable webhook call for this intent Enable webhook call for slot filling

USER SAYS quanto consumi esta semana? COPY CURL

DEFAULT RESPONSE Not available

INTENT consumo

ACTION Not available

PARAMETER date-time VALUE {"startDate": "2020-03-29T00:00:00-03:00", "endDate": "2020-04-04T23:59:59-03:00"}

DIAGNOSTIC INFO



TesteBot

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Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

consumo



WORKING...

Try it now



REQUIRED	PARAMETER NAME	ENTITY	VALUE
<input type="checkbox"/>	date-time	@sys.date-time	Sdate-time
<input type="checkbox"/>	Enter name	Enter entity	Enter value

+ New parameter

Responses



Execute and respond to the user

Respond to your users with a simple message, or build custom rich messages for the integrations you support.

[Learn more](#)

[ADD RESPONSE](#)

Fulfillment

Enable webhook call for this intent

Enable webhook call for slot filling

Agent

USER SAYS
quanto consumi esta semana?

COPY CURL

DEFAULT RESPONSE
Not available

INTENT
consumo

ACTION
Not available

PARAMETER
date-time
VALUE

```
{"startDate": "2020-03-29T00:00:00-03:00",  
"endDate": "2020-04-04T23:59:59-03:00"}
```

DIAGNOSTIC INFO



TesteBot

pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Intents

CREATE INTENT

Try it now



Search intents



consumo

Clique com o botão
esquerdo do mouse aqui

Please use test console above to try a sentence.

See how it works in [Google Assistant](#).



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Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Fulfillment

Webhook

DISABLED

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Inline Editor (Powered by Cloud Functions for Firebase)

DISABLED

Build and manage fulfillment directly in Dialogflow via Cloud Functions for Firebase. [Docs](#)

index.js package.json

```
1 // See https://github.com/dialogflow/dialogflow-fulfillment-nodejs
2 // for Dialogflow fulfillment library docs, samples, and to report issues
3 'use strict';
4
5 const functions = require('firebase-functions');
6 const {WebhookClient} = require('dialogflow-fulfillment');
7 const {Card, Suggestion} = require('dialogflow-fulfillment');
8
9 process.env.DEBUG = 'dialogflow:debug'; // enables lib debugging statements
10
11 exports.dialogflowFirebaseFulfillment = functions.https.onRequest((request, response) => {
12   const agent = new WebhookClient({ request, response });
13   console.log('Dialogflow Request headers: ' + JSON.stringify(request.headers));
14   console.log('Dialogflow Request body: ' + JSON.stringify(request.body));
15   agent.add(`You said ${request.body.queryResult.text}.`);
16   return agent.endConversation(`Thank you!`);
17 })
```

Try it now



Please use test console above to try a sentence.

See how it works in [Google Assistant](#).



Fulfillment

Try it now



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Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Webhook

ENABLED



Your web service will receive a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the [webhook requirements](#) specific to the API version enabled in this agent.

URL*

<https://60d04710.ngrok.io>

BASIC AUTH

Enter username

Enter password

API KEY

Enter key

Enter value

ENTERPRISE

Enter key

Enter value

+ Add header

SMALL TALK

Disable webhook for Smalltalk

Usar endereço do ngrok

Inline Editor (Powered by Cloud Functions for Firebase)

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Build and manage fulfillment directly in Dialogflow via Cloud Functions for Firebase. [Docs](#)

index.js

Please use test console above to try a sentence.

See how it works in [Google Assistant](#).



TesteBot

pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Fulfillment

Try it now



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index.js package.json

```
25 // // Uncomment and edit to make your own intent handler
26 // // uncomment `intentMap.set('your intent name here', yourFunctionHandler)
27 // // below to get this function to be run when a Dialogflow intent is match
28 // function yourFunctionHandler(agent) {
29 //   agent.add(`This message is from Dialogflow's Cloud Functions for Fireba
30 //   agent.add(new Card({
31 //     title: 'Title: this is a card title',
32 //     imageUrl: 'https://developers.goog
33 //     text: 'This is the body text of a c
34 //     buttonText: 'This is a button',
35 //     buttonUrl: 'https://assistant.goog
36 //   })
37 // );
38 // agent.add(new Suggestion('Quick Reply'));
```

Salvar alterações

DONE



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pt-BR

Intents

Entities

Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Fulfillment

Webhook

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URL* BASIC AUTH Enter username Enter passwordHEADERS Enter key Enter value[Add header](#)SMALL TALK

Inline Editor

 (Powered by Cloud Functions for Firebase)

Perguntar "Quanto
consumi esta semana?"

See how it works in [Google Assistant](#)

DISABLED

Build and manage fulfillment directly in Dialogflow via Cloud Functions for Firebase. [Docs](#)



TesteBot

pt-BR



Intents



Entities



Knowledge [beta]

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Fulfillment

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Your web service will receive a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the [webhook requirements](#) specific to the API version enabled in this agent.

URL* <https://60d04710.ngrok.io>

BASIC AUTH Enter username Enter password

HEADERS Enter key Enter value

Enter key Enter value

[+ Add header](#)

SMALL TALK Disable webhook for Smalltalk

Resposta recebida do Flask

Inline Editor (Powered by Cloud Functions for Firebase)

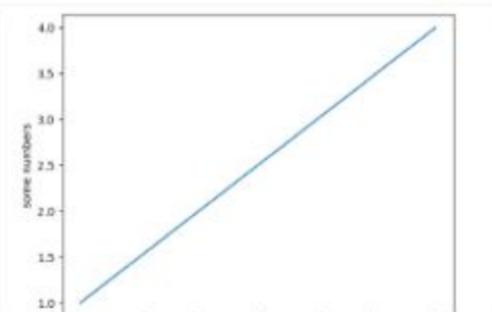
DISABLED

Build and manage fulfillment directly in Dialogflow via Cloud Functions for Firebase. [Docs](#)

Try it now

See how it works in Google Assistant.
[↗](#)

Agent

USER SAYS [COPY CURL](#)
quanto consumi esta semana?DEFAULT RESPONSE
Voce consumiu 10 kWh de 2020-03-29T00:00:00-03:00 a 2020-04-04T23:59:59-03:00



Próximos Passos

- Respostas customizadas, consultando dados de sensores (Pandas) ou ativando sensores (Blynk)
- Integração com outras plataformas de mensageria (Google Assistant, Telegram, etc)



Referências

- [1] Tutorial de instalação do Flask: <https://flask.palletsprojects.com/en/1.1.x/quickstart/>
- [2] Webhook flask: <https://ogma-dev.github.io/posts/simple-flask-webhook/>
- [3] Site do ngrok (tunelamento): <https://ngrok.com/>
- [4] Guia para webhooks do DialogFlow: <https://cloud.google.com/dialogflow/docs/fulfillment-webhook>
- [5] Código-fonte do chatbot para monitoramento do consumo residencial:
<https://github.com/tiagoyukio12/webhook>



Dúvidas?

tiagoyukio12@gmail.com