

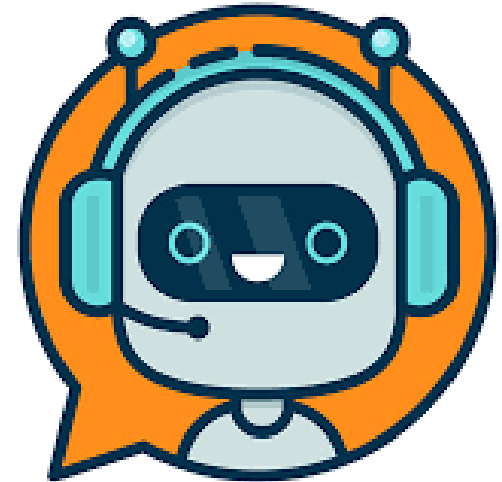
# PROJET 10

DÉVELOPPEZ UN CHATBOT POUR RÉSERVER DES VACANCES ET PILOTER SA PERFORMANCE

#MICROSOFT BOT FRAMEWORK #AZURE LUIS #AZURE APPLICATION INSIGHT  
#VSCODE #GITHUB #TEST UNITAIRE #KQL KUSTO QUERY LANGUAGE  
#DASHBOARD  
#AZURE APP SERVICES

## Ingénieur IA

Développez et intégrez des algorithmes de Deep Learning au sein d'un produit IA



OPENCLASSROOMS

OUDDANE NABIL

## Développez un chatbot pour réserver des vacances

### A. INTRODUCTION

1. Contexte
2. Objectifs
3. Données

### B. DEVELOPPEMENT

1. Création du modèle LUIS
  - a. Création d'une ressource Language Understanding LUIS sur AZURE
  - b. Modélisation LUIS
2. Développement du bot pour répondre a notre besoin
  - a. prérequis au BOT
  - b. Développement du BOT en python
  - c. Test du bot sur l'émulateur
  - d. Mise en place de 5 tests unitaires
  - e. Mise en place des alertes app insights
  - f. Création d'un dashboard
  - g. monitoring de log bespoke
3. Déploiement du bot sur azure
  - a. workflow github tests unitaires
  - b. déploiement de azure web app service
  - c. azure bot service

### C. Model UPDATE

**A**

# INTRODUCTION

# 1. Contexte



- **ENJEU Compétences DU P9:**
  - Chatbot avec **Microsoft Bot framework SDK v4**
  - **Analyse sémantique avec LUIS** d'azure pour identifier les variables nécessaires
  - Evaluation de la performance du modèle LUIS avec **Azure application insight**

- **ENJEU global:**
  - Développer un chatbot pour aider les utilisateurs à choisir une offre de voyage
  - MVP: support interne à la réservation d'un billet d'avion



## 2. Objectifs

- SCRIPT du pipeline complet stocké sur github
  - Application web chatbot développé grâce au **microsoft Bot Builder SDK et au service cognitif LUIS**
    - Démontrer les fonctionnalités de l'application à des futurs utilisateurs
  - Outils de suivi et d'analyse de l'activité du chatbot en prod avec Azure application insight
    - Pour rassurer les managers
- Méthodologie
  - pilotage de la performance du modèle en production
    - Critère d'évaluation du modèle LUIS
    - Schéma du mécanisme d'évaluation du modèle en prod
    - Modalités de mise à jour du modèle



# 3. données

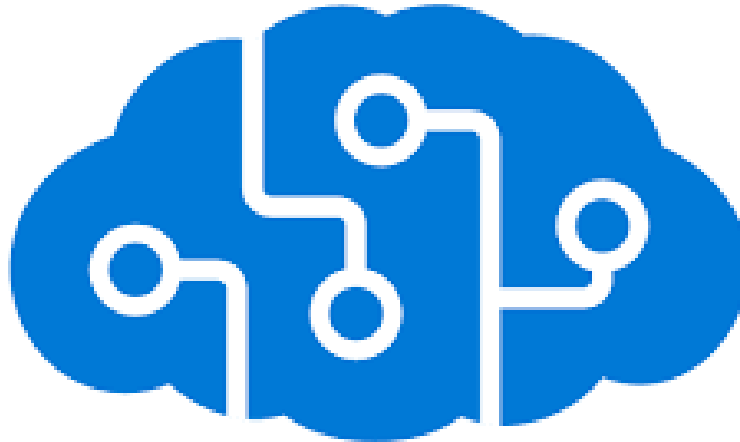
- **Données utilisateur :**
  - <https://s3-eu-west-1.amazonaws.com/static.oc-static.com/prod/courses/files/AI+Engineer/Project+10%C2%A0-+D%C3%A9veloppez+un+chatbot+pour+r%C3%A9server+des+vacances/frames.zip>
  - Historiques d'échanges entre chatbot et utilisateur
  - JSON format. 5 champs principaux
    - user\_id
    - wizard\_id
    - Id
    - userSurveyRating
    - turns

**B**



**B**


## **1- CREATION DU MODELE LUIS**










# 1-a: Creation d'une ressource Language Understanding LUIS sur AZURE

**pricing authoring: F0: 5 calls/sec 1M calls /mois - pricing prediction: F0: 5 calls/sec 10K calls /mois**

 Microsoft Azure


Search resources, services, and docs (G+/)


Home > Create a resource >

## Language Understanding

Microsoft



### Language Understanding

 Add to Favorites

Microsoft

★ 3.6 (10 Azure ratings)

Plan


Language Understanding

Create

Overview Plans Usage Information + Support Reviews

Language Understanding (LUIS) is a natural language processing service that enables you to understand human language in your own application, website, chatbot, IoT device, and more. After you configure and publish your LUIS model, your application can easily receive user input in natural language and take action. You don't need to understand machine learning to solve the problem of extracting meaning from input. Instead you get to focus on your own application logic and let LUIS do the heavy lifting on your behalf. After your LUIS model is built and deployed, it exports a simple HTTP endpoint that is called by your application.

More products from Microsoft




Active Directory Health Check

Microsoft

Azure Service

Assess the risk and health of Active Directory environments.




AD Replication Status

Microsoft

Azure Service

Identify Active Directory replication issues in your environment.




Device Update for IoT Hub

Microsoft

Azure Service

Securely and Reliably update your devices with Device Update for IoT Hub.



Front Door and CDN profiles

Microsoft

Azure Service

Azure Front Door and CDN profiles is security led, modern cloud CDN that provides static and dynamic content acceleration, global load balancing and enhanced security

[See All](#)

# 1-a: Creation d'une ressource Language Understanding LUIS sur AZURE (LUIS va être remplacé par CLU)

The screenshot shows the Microsoft Azure portal interface. At the top, there's a blue header with the Microsoft Azure logo, a search bar, and user information (nabil.ouddane@outlook...). Below the header, the breadcrumb path is 'Home > P10\_luis\_rg >'. The main content area is titled 'P10luisinst-Authoring' with the subtitle 'Language understanding'. On the left, there's a sidebar with navigation options: Overview (selected), Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource Management (Keys and Endpoint, Pricing tier, Networking, Identity, Cost analysis, Properties, Locks), and Monitoring (Alerts, Metrics, Diagnostic settings, Logs). The main content area is divided into two sections. The top section, 'Essentials', shows resource details: Resource group (P10\_luis\_rg), Status (Active), Location (West Europe), Subscription (Paieement à l'utilisation), Subscription ID (83d8ecaa-cbe4-4ae1-a829-d3a63be1315e), and Tags (Click here to add tags). The bottom section, 'Discover', has tabs for Discover, Develop, Deploy, and Monitoring. Under the Discover tab, there's a 'Before you get started' section with a paragraph explaining the need to understand authoring and prediction resources, followed by a link 'Read more about resources'. Below this, there are two expandable sections: 'Authoring Resource' and 'Prediction Resource'. At the bottom right, there's a 'Custom Portal' section with a link to a custom portal for building, training, testing, and publishing custom LUIS applications.

Microsoft Azure

Search resources, services, and docs (G+)

Home > P10\_luis\_rg >

**P10luisinst-Authoring** Language understanding

Search

Delete

**Overview**

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

**Resource Management**

Keys and Endpoint

Pricing tier

Networking

Identity

Cost analysis

Properties

Locks

**Monitoring**

Alerts

Metrics

Diagnostic settings

Logs

**Essentials**

Resource group (move) : [P10\\_luis\\_rg](#)

Status : Active

Location : West Europe

Subscription (move) : [Paieement à l'utilisation](#)

Subscription ID : 83d8ecaa-cbe4-4ae1-a829-d3a63be1315e

Tags (edit) : [Click here to add tags](#)

API type : Language Understanding Authoring (LUIS)

Pricing tier : Free

Endpoint : <https://p10luisinst-authoring.cognitiveservices.azure.com/>

Manage keys : [Click here to manage keys](#)

**Discover** Develop Deploy Monitoring

**Before you get started**

Before you get started with Language Understanding, you need to understand what is an authoring resource and what is a prediction resource and when to use the one versus the other when using the service. Expand the menus below to learn more what each resource entails. Since you now have an authoring resource, you can go to the portal and build apps. Make sure to create a prediction resource to query endpoint after publishing your application.

[Read more about resources](#)

Authoring Resource

Prediction Resource

**Get Started with Language Understanding**

Language Understanding Service (LUIS) is a cloud-based conversational AI service that allows customizations of Natural Language Understanding (NLU) models and applies its machine-learned intelligence to predict overall meaning, and extract relevant detailed information to a user's conversational text. Use our custom portal to start building, training and customizing your models in an interactive manner.

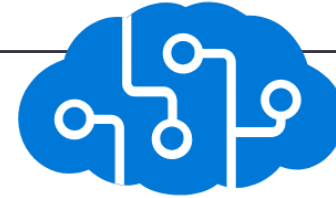
[Learn More](#)

**Custom Portal**

Go to our custom portal to build, train, test and publish your domain specific custom LUIS applications.

# 1-b: Modelisation LUIS (cf fichier jupyter p10\_luis\_0.2.ipynb)

3 POSSIBILITES : LIB PYTHON / API / PORTAIL



IMPORT et COMPREHENSION  
des fichiers d'exemples de dialogues  
frames.json

FORMATAGE pour FEEDING de LUIS  
des fichiers d'exemples de dialogues  
frames.json

CREATION de l'APPLICATION LUIS et du  
CLIENT AUTHORIZING

ENTRAINEMENT:  
À partir d'une 30taine d'exemples  
formatés issus de frames.json

PUBLICATION

Analyse et extraction à partir des turns de l'intention et  
des entités avec leurs positions:

- intentions
- dst\_city
- or\_city
- budget
- str\_date
- End\_date

- Modele d'intention
- Prebuilt entity (money, geography v2, datetime v2)
- Entities:
- Budget avec feature « money »
- Or\_city avec feature « geography v2 »
- Dst\_city avec feature « geography v2 »
- Str\_date avec feature « datetime v2 »
- end\_date avec feature « datetime v2 »



# 1-b: Modelisation LUIS Dashboard

My LUIS / P10 mvp book v0.1 ▾

DASHBOARD

BUILD

MANAGE

Train

Test

Publish

## Published app ⓘ

### Publishing status

Last published:

Jul 5, 2022 2:36:56 PM

Version: 0.1

Slot: Production

[External services](#)

No Services

[Regions](#)

All regions

### Endpoint hits per day



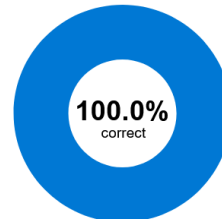
Show results from

Past week ▾

## Training evaluation ⓘ

Active version: 0.1 – trained Jul 5, 2022 2:30:14 PM

### Overall predictions ⓘ



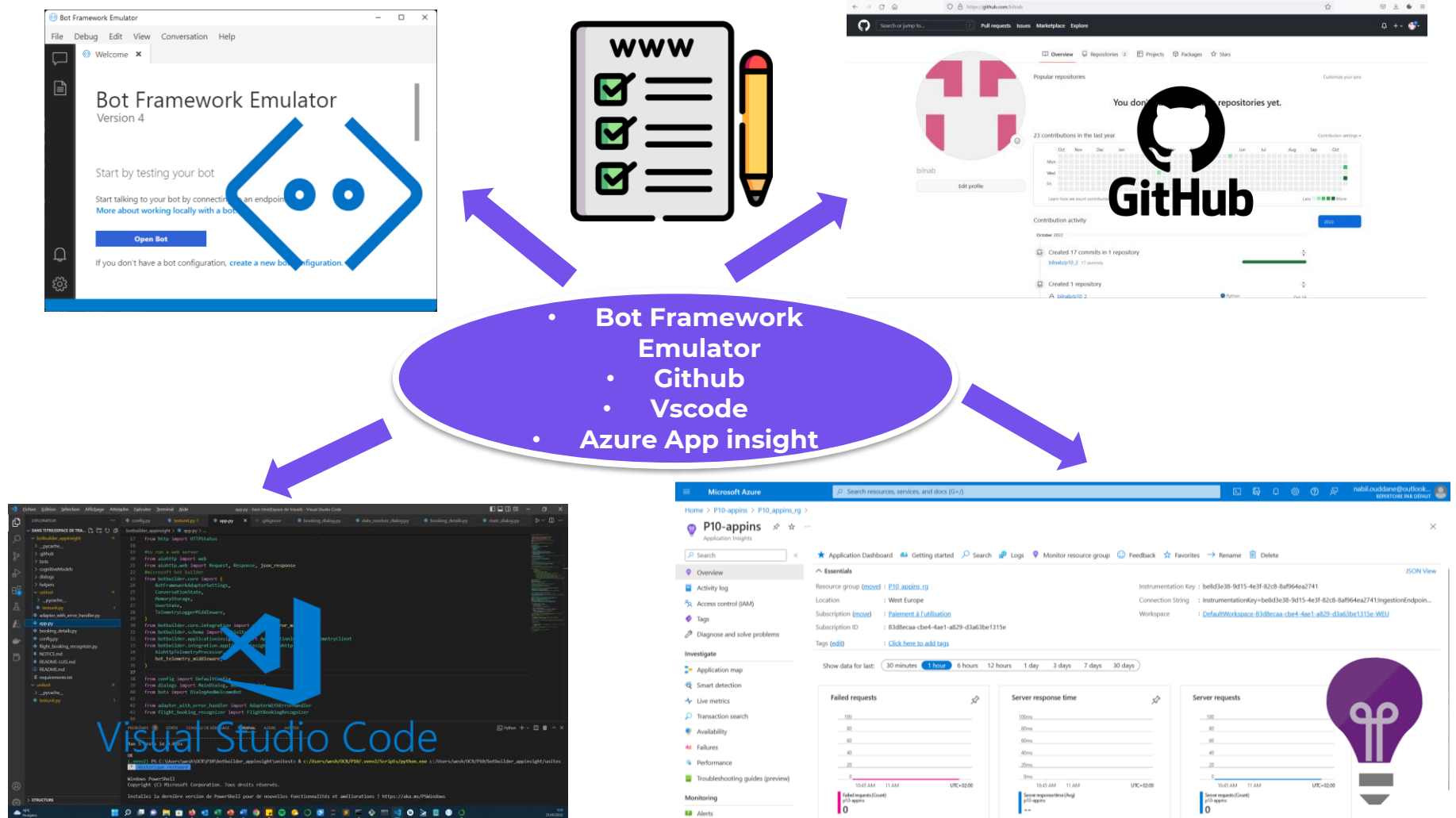
|        |                         |
|--------|-------------------------|
| 100.0% | Correct predictions ⓘ   |
| 0.0%   | Incorrect predictions ⓘ |
| 0.0%   | Unclear predictions ⓘ   |
| 2      | Intents                 |
| 8      | Entities                |
| 31     | Utterances              |

**B**

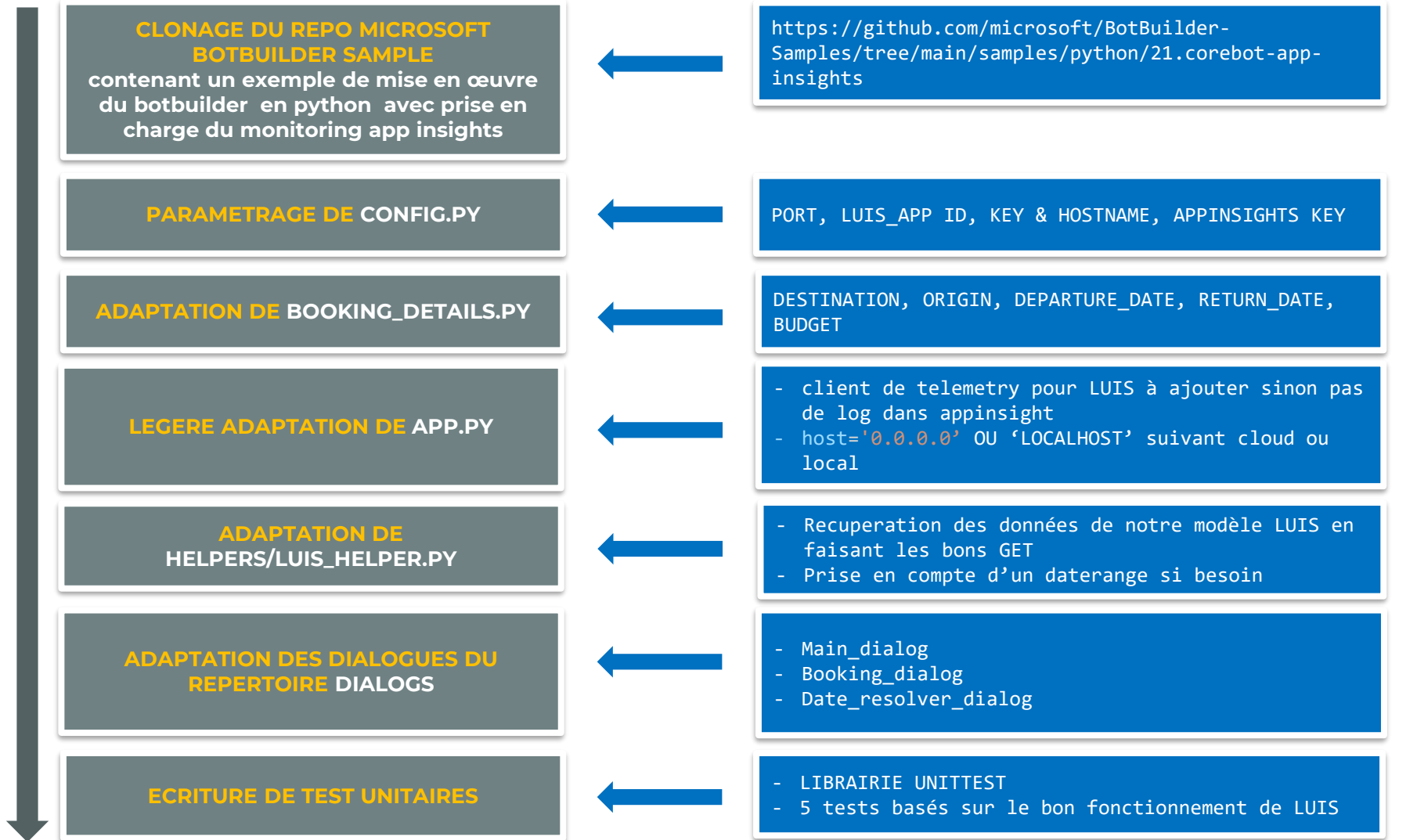
## **2- DEVELOPPEMENT DU BOT POUR REPONDRE A NOTRE BESOIN**



# 2-a: prérequis au BOT




## 2-b : Developpement du BOT en python



# 2-c : Test du bot sur l'émulateur

Welcome Live Chat ✕  
Restart Conversation - New User ID | Save transcript



Welcome to Bot FlyMe BOT  
Our role is to help you to book your next trip

Get an overview

Ask a question

Learn how to deploy

3 minutes ago

hello

2 minutes ago

hello, I am flybot, how can I help you?

2 minutes ago

i want to go from London to Paris today and come back tomorrow for a budget of 2000\$

Debug Edit View Conversation Help  
Welcome Live Chat ✕  
Restart Conversation - New User ID | Save transcript

when do you want to leave?

2 minutes ago


when do you want to come back?

2 minutes ago

Please confirm, you want to book a flight from: London to Paris from October 21 2022 to October 22 2022. for a budget of 2000 \$.

2 minutes ago

I have booked a fly from London to Paris on October 21 2022 and return on October 22 2022. with a budget of 2000 \$ \$.



today

2 minutes ago

tomorrow

2 minutes ago

Yes

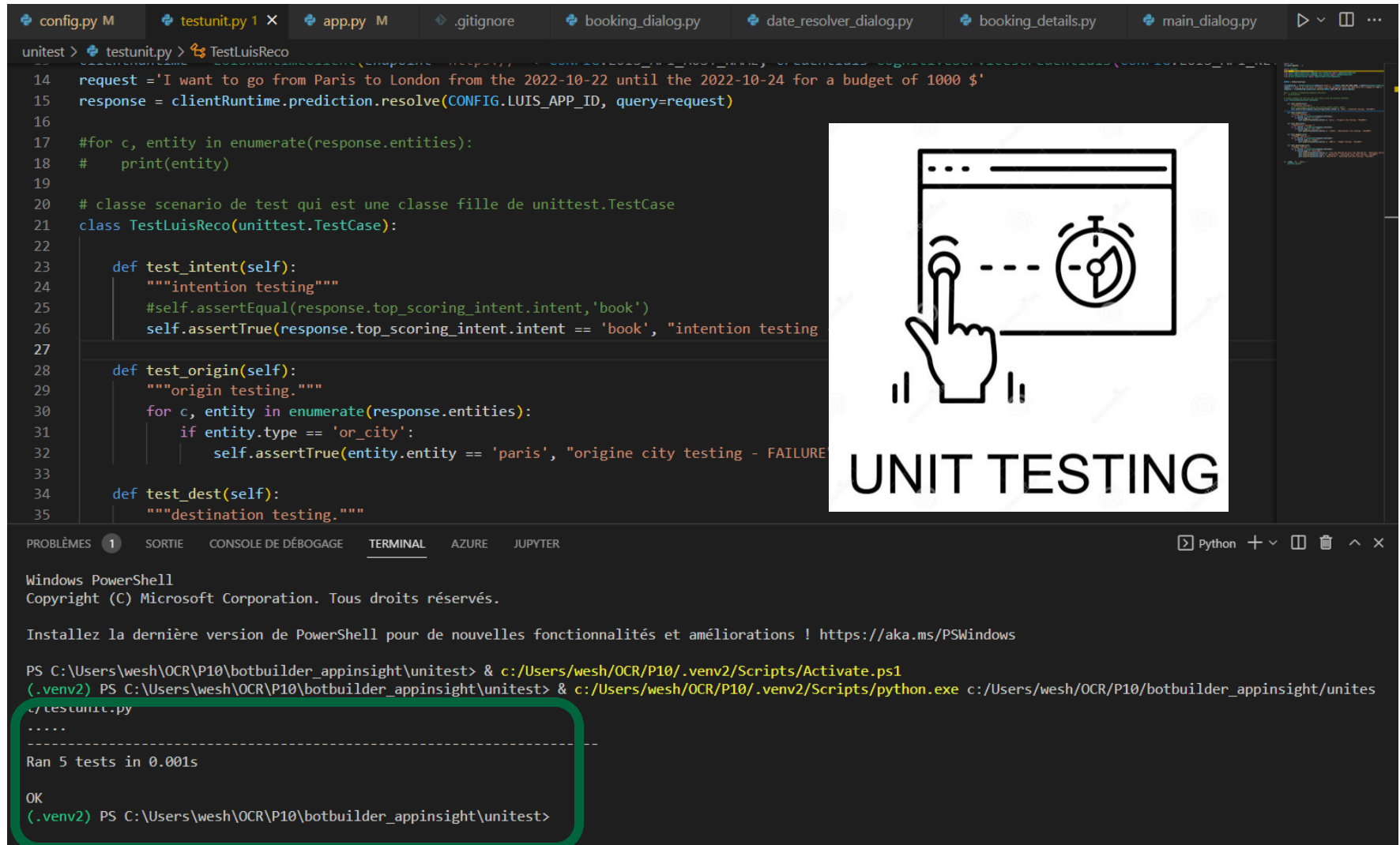
2 minutes ago

Type your message

Type your message



## 2-d : Mise en place de 5 tests unitaires



The screenshot displays a VS Code editor with several open files: `config.py`, `testunit.py`, `app.py`, `.gitignore`, `booking_dialog.py`, `date_resolver_dialog.py`, `booking_details.py`, and `main_dialog.py`. The `testunit.py` file is the active editor, showing a Python script for unit testing. The script includes a `unittest.TestCase` class named `TestLuisReco` with three test methods: `test_intent`, `test_origin`, and `test_dest`. The `test_origin` method is currently selected, showing a loop that iterates over `response.entities` and asserts that the `entity.type` is `'or_city'` and the `entity.entity` is `'paris'`. A diagram of a hand pointing at a screen with a clock icon is overlaid on the code, with the text **UNIT TESTING** below it.

The terminal window at the bottom shows the execution of the tests. It starts with a PowerShell prompt, followed by the command `c:/Users/wesh/OCR/P10/.venv2/Scripts/Activate.ps1` to activate the virtual environment. Then, the command `c:/Users/wesh/OCR/P10/.venv2/Scripts/python.exe c:/Users/wesh/OCR/P10/botbuilder_appinsight/unitest/c/testunit.py` is executed. The output shows that 5 tests were run successfully in 0.001s, and the prompt returns to the PowerShell shell.

```
unittest > testunit.py > TestLuisReco
14 request = 'I want to go from Paris to London from the 2022-10-22 until the 2022-10-24 for a budget of 1000 $'
15 response = clientRuntime.prediction.resolve(CONFIG.LUIS_APP_ID, query=request)
16
17 #for c, entity in enumerate(response.entities):
18 #    print(entity)
19
20 # classe scenario de test qui est une classe fille de unittest.TestCase
21 class TestLuisReco(unittest.TestCase):
22
23     def test_intent(self):
24         """intention testing"""
25         #self.assertEqual(response.top_scoring_intent.intent, 'book')
26         self.assertTrue(response.top_scoring_intent.intent == 'book', "intention testing")
27
28     def test_origin(self):
29         """origin testing."""
30         for c, entity in enumerate(response.entities):
31             if entity.type == 'or_city':
32                 self.assertTrue(entity.entity == 'paris', "origine city testing - FAILURE")
33
34     def test_dest(self):
35         """destination testing."""
```

PROBLÈMES 1 SORTIE CONSOLE DE DÉBOGAGE TERMINAL AZURE JUPYTER

Windows PowerShell  
Copyright (C) Microsoft Corporation. Tous droits réservés.

Installez la dernière version de PowerShell pour de nouvelles fonctionnalités et améliorations ! <https://aka.ms/PSWindows>

PS C:\Users\wesh\OCR\P10\botbuilder\_appinsight\unitest> & c:/Users/wesh/OCR/P10/.venv2/Scripts/Activate.ps1  
(.venv2) PS C:\Users\wesh\OCR\P10\botbuilder\_appinsight\unitest> c:/Users/wesh/OCR/P10/.venv2/Scripts/python.exe c:/Users/wesh/OCR/P10/botbuilder\_appinsight/unitest/c/testunit.py  
.....  
-----  
Ran 5 tests in 0.001s  
OK  
(.venv2) PS C:\Users\wesh\OCR\P10\botbuilder\_appinsight\unitest>

## 2-e: Mise en place des alertes app insights

- Création d'**alertes** déclenchant **l'envoi de mails** à partir de requêtes sur les logs de la table **CustomEvents** de application insights:
  - Score moyen LUIS de l'intention < 0,5 sur n jours glissants*
  - Nombre d'intention « book » / Nombre d'intention « none » < 1 sur 4 jours glissants*
  - Nombre de waterfall bookdialogs debutés / nombre de waterfall bookdialogs terminés < 0,5 sur n jours glissants => indication d'interruption en cours de dialogue*
  - Nombre de waterfall Maindialogs debutés / nombre de waterfall Maindialogs terminés < 0,5 sur n jours glissants => indication de booking finalisés*
  - Nombre anormal (trop grand) d'activités d'un meme utilisateur*



[Home](#) > [P10-appins](#) | Alerts >

### Alert rules ...

[+ Create](#) [Columns](#) [Refresh](#) [Export to CSV](#) [Open query](#) | [Delete](#) [Enable](#) [Disable](#)

Target resource type : all

Target scope : P10-appins

Subscription : all

Signal type : all

Severity : all

Status : Enabled

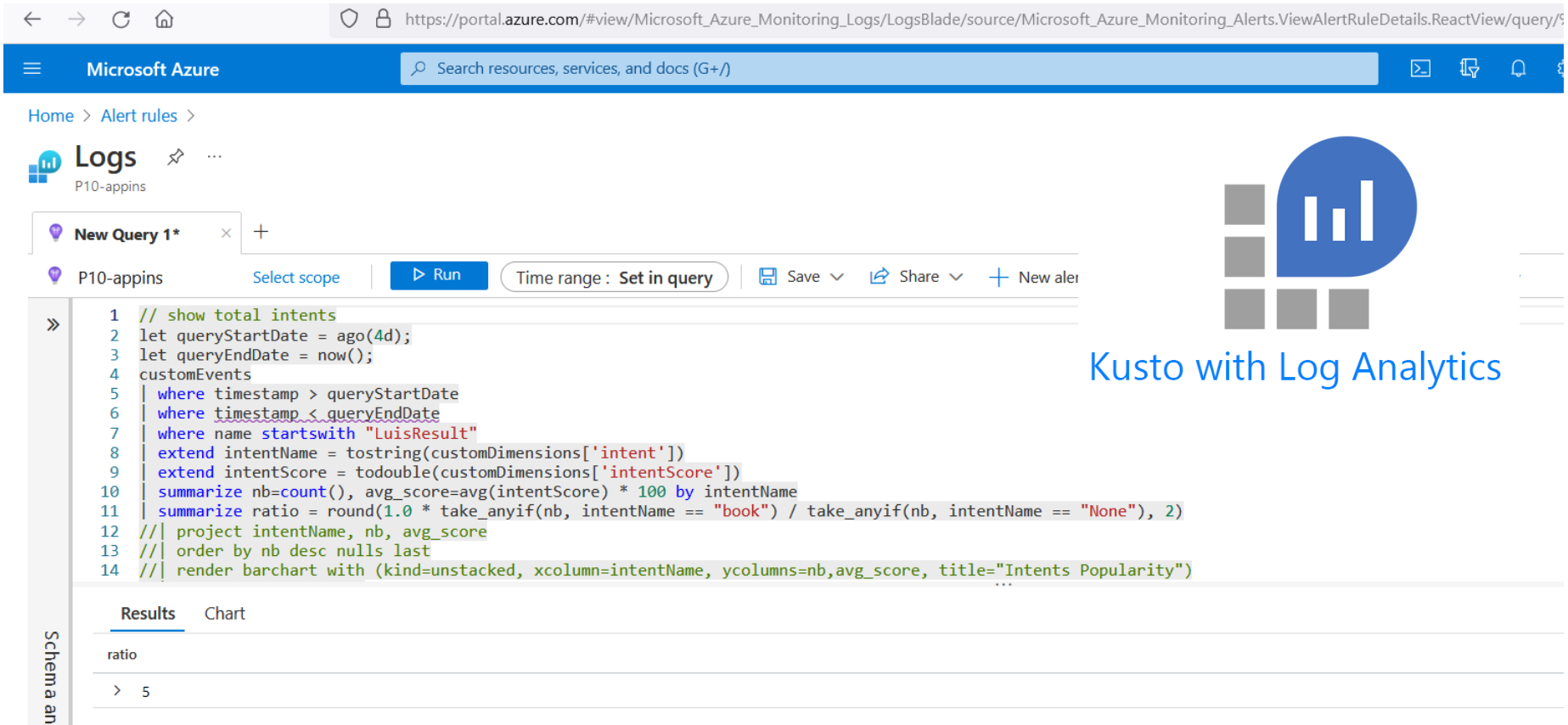
Showing 1 to 6 of 6 Alert rules.

No grouping

| Name <input type="button" value="v"/>  | Condition                           | Severity <input type="button" value="v"/> | Target scope | Target resource type | Signal type <input type="button" value="v"/> | Status <input type="button" value="v"/> |
|--|-------------------------------------|---|--------------|----------------------|--|---|
| <input type="checkbox"/> <a href="#">Failure Anomalies - P10-appins</a>            | Failure Anomalies detected          | 3 - Informational                         | p10-appins   | Application Insights | Smart detector                               | ✓ Enabled ...                           |
| <input type="checkbox"/> <a href="#">P10_Book_intent_score_tresh_Warning</a>       | avg_score <= 0.5 In selected dim... | 2 - Warning                               | P10-appins   | Application Insights | Log search                                   | ✓ Enabled ...                           |
| <input type="checkbox"/> <a href="#">P10_Book_none_intent_ratio_tresh_Warning</a>  | ratio <= 1                          | 2 - Warning                               | P10-appins   | Application Insights | Log search                                   | ✓ Enabled ...                           |
| <input type="checkbox"/> <a href="#">P10_BookDialog_tresh_Warning</a>              | Percentage <= 0.5 In selected di... | 2 - Warning                               | P10-appins   | Application Insights | Log search                                   | ✓ Enabled ...                           |
| <input type="checkbox"/> <a href="#">P10_MainDialog_tresh_Warning</a>              | Percentage <= 0.5 In selected di... | 2 - Warning                               | P10-appins   | Application Insights | Log search                                   | ✓ Enabled ...                           |
| <input type="checkbox"/> <a href="#">P10_user_abnormal_activity_attack_Warning</a> | Count > 10                          | 2 - Warning                               | P10-appins   | Application Insights | Log search                                   | ✓ Enabled ...                           |

## 2-e: Mise en place des alertes app insights

- Des ajustements sont évidemment nécessaires en fonction de la volumétrie
- Les requêtes sont écrites en **KQL** kusto query language



Microsoft Azure

Home > Alert rules >

Logs

P10-appins

New Query 1\* x +

P10-appins Select scope ▶ Run Time range: Set in query Save Share + New alert

```
1 // show total intents
2 let queryStartDate = ago(4d);
3 let queryEndDate = now();
4 customEvents
5 | where timestamp > queryStartDate
6 | where timestamp < queryEndDate
7 | where name startswith "LuisResult"
8 | extend intentName = tostring(customDimensions['intent'])
9 | extend intentScore = todouble(customDimensions['intentScore'])
10 | summarize nb=count(), avg_score=avg(intentScore) * 100 by intentName
11 | summarize ratio = round(1.0 * take_anyif(nb, intentName == "book") / take_anyif(nb, intentName == "None"), 2)
12 /// project intentName, nb, avg_score
13 /// order by nb desc nulls last
14 /// render barchart with (kind=unstacked, xcolumn=intentName, ycolumns=nb,avg_score, title="Intents Popularity")
```

Results Chart

ratio

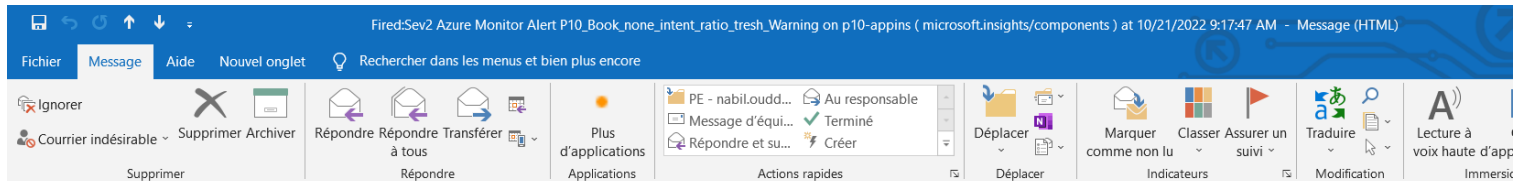
> 5

Schema an

Kusto with Log Analytics

## 2-e: Mise en place des alertes app insights

- Réception de mails



Fired:Sev2 Azure Monitor Alert P10\_Book\_none\_intent\_ratio\_tresh\_Warning on p10-appins ( microsoft.insights/components ) at 10/21/2022 9:17:47 AM

MA Microsoft Azure <azure-noreply@microsoft.com>  
À nabil.ouddane@outlook.fr

En cas de problème lié à l'affichage de ce message, cliquez ici pour l'afficher dans un navigateur web.

**Fired:Sev2 Azure Monitor Alert  
P10\_Book\_none\_intent\_ratio\_tresh\_Warning on  
p10-appins ( microsoft.insights/components )  
at 10/21/2022 9:17:47 AM**

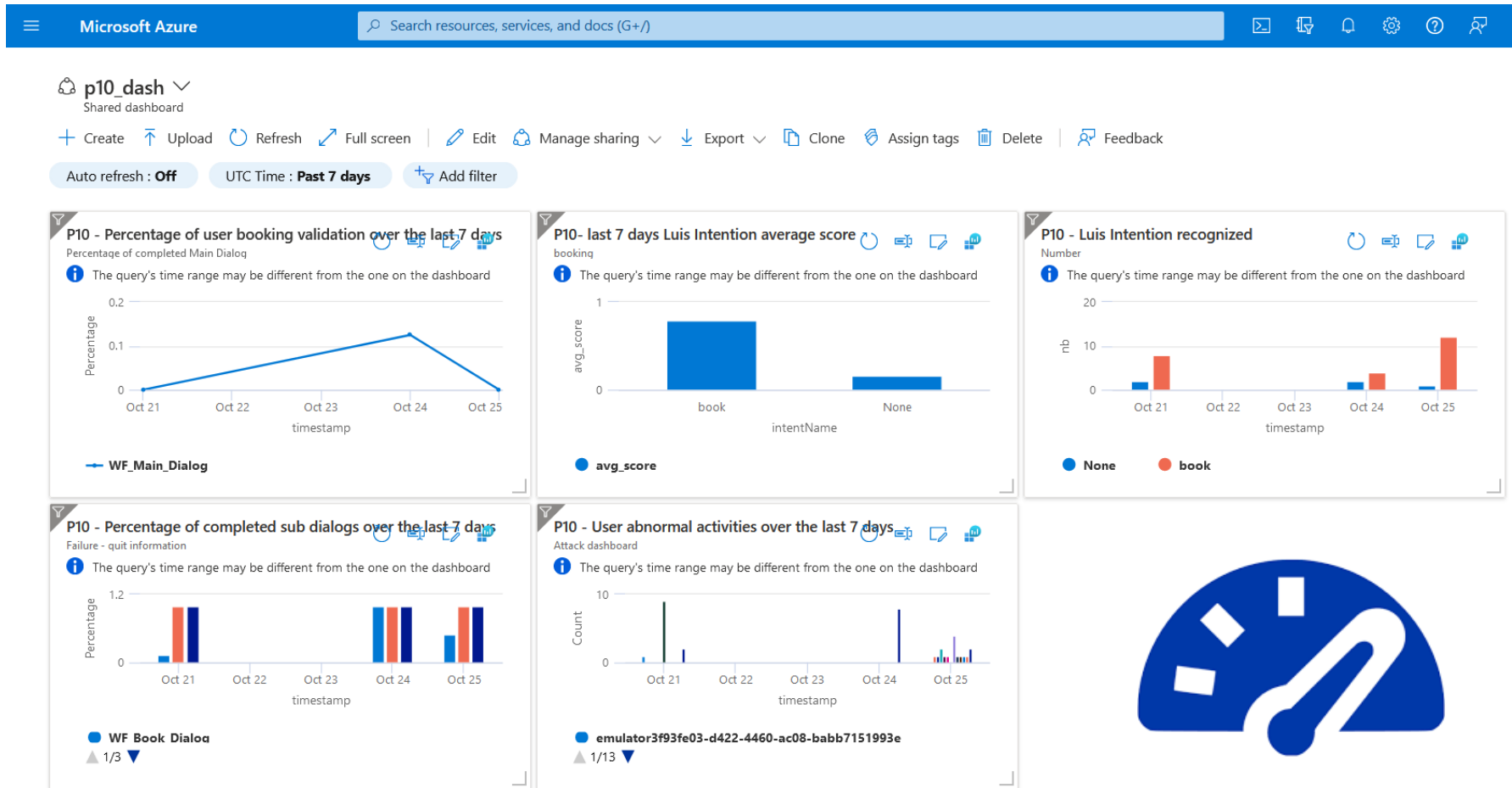
[View the alert in Azure Monitor >](#)

### Summary

|                   |  |
|-------------------|--|
| Alert name        | P10_Book_none_intent_ratio_tresh_Warning |
| Severity          | Sev2                                     |
| Monitor condition | Fired                                    |
| Affected resource | <a href="#">p10-appins</a>               |
| Resource type     | microsoft.insights/components            |
| Resource group    | p10_appins_rg                            |
| Subscription      | Paielement à l'utilisation               |

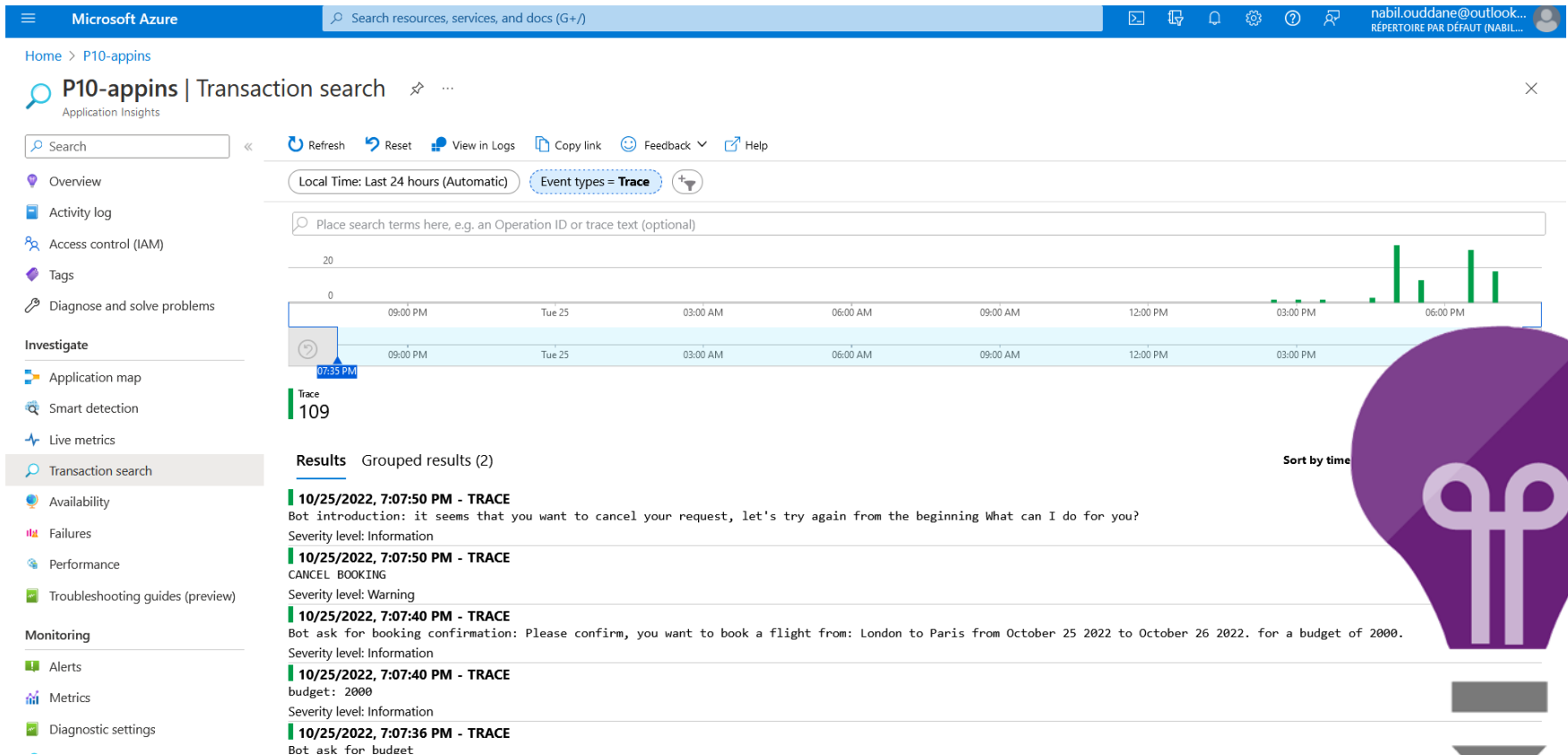
## 2-f: Creation d'un dashboard

- Suivi de plusieurs métriques importantes pour le modèle grâce aux requêtes KQL
- Possibilité de rajouter d'autres métriques si besoin



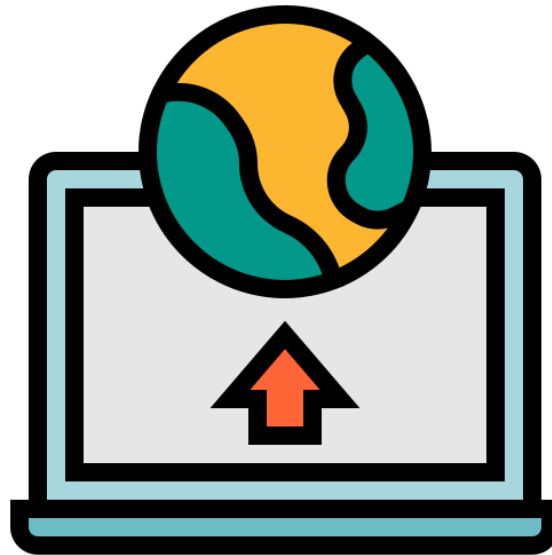
# 2-g: monitoring de log bespoke

- Export des logs vers app insights
- Plusieurs types de messages stockés dans la table TRACE: info / warning / error
  - Permettant une investigation plus fine sur les problèmes rencontrés

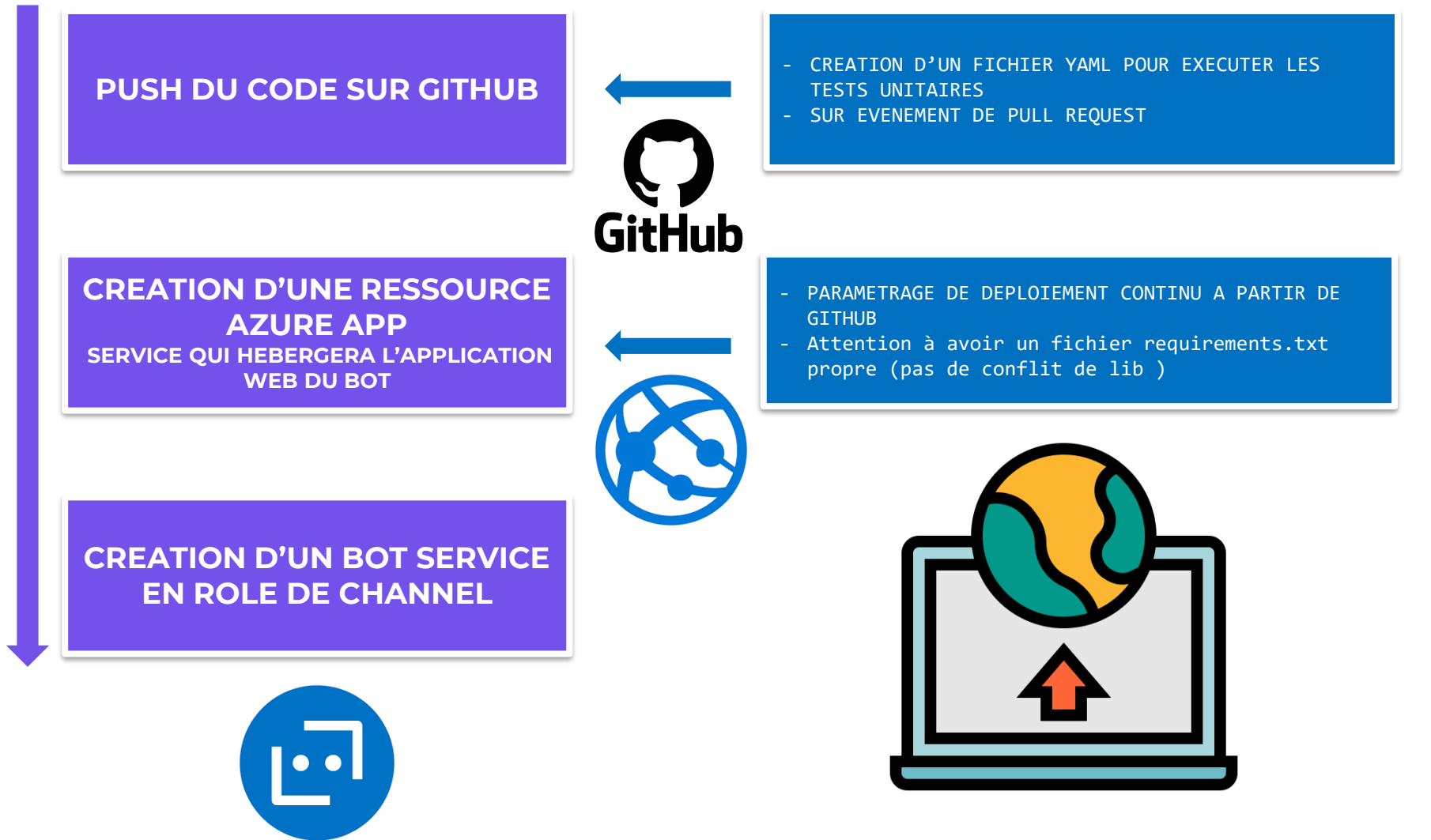


**B**

### 3- DÉPLOIEMENT DU BOT SUR AZURE

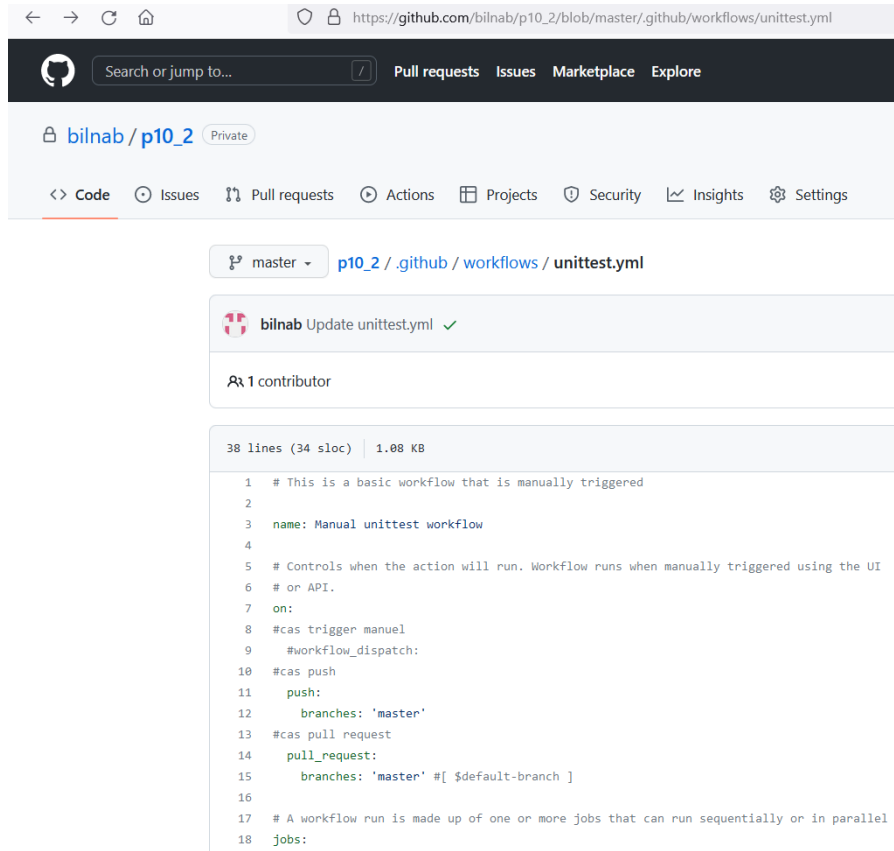


# 3 : Deploiement



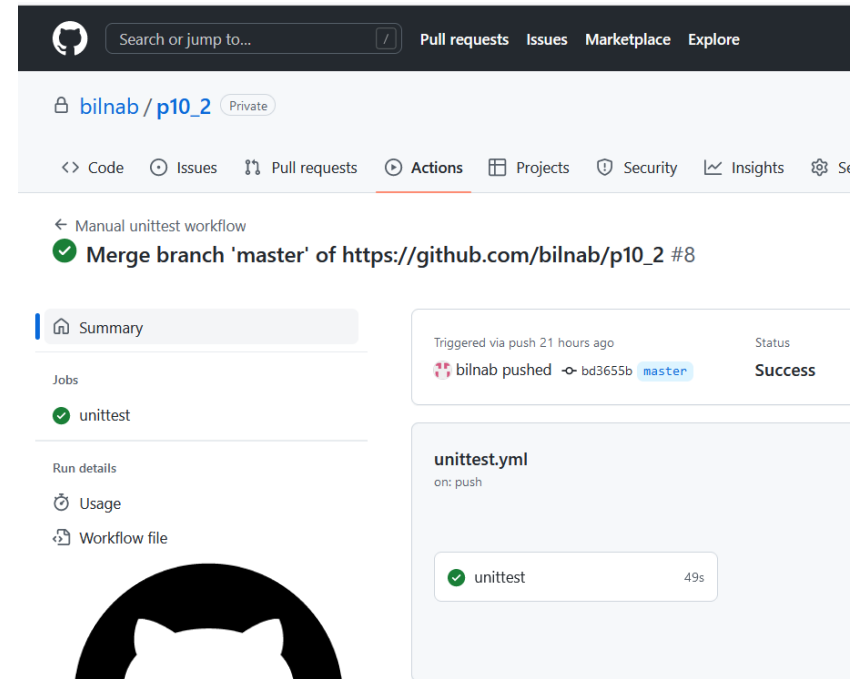


# 3-a: workflow github tests unitaires



The screenshot shows the GitHub repository page for `bilnab/p10_2`. The file `unittest.yml` is selected, showing its content. The workflow is named "Manual unittest workflow" and is triggered on a push to the `master` branch. It includes a job named `unittest` that runs the `cas` action.

```
1 # This is a basic workflow that is manually triggered
2
3 name: Manual unittest workflow
4
5 # Controls when the action will run. Workflow runs when manually triggered using the UI
6 # or API.
7 on:
8   #cas trigger manuel
9   #workflow_dispatch:
10  #cas push
11  push:
12    branches: 'master'
13  #cas pull request
14  pull_request:
15    branches: 'master' #[ $default-branch ]
16
17 # A workflow run is made up of one or more jobs that can run sequentially or in parallel
18 jobs:
```



The screenshot shows the GitHub Actions page for the `unittest` workflow. The workflow is triggered via a push to the `master` branch. The run details show a successful status with a duration of 49s.

Manual unittest workflow

✓ Merge branch 'master' of https://github.com/bilnab/p10\_2 #8

Summary

Jobs

- ✓ unittest

Run details

- Usage
- Workflow file

Triggered via push 21 hours ago

bilnab pushed bd3655b master

Status: Success

unittest.yml

on: push

✓ unittest 49s



# 3-a: workflow github tests unitaires: fichier YAML



```
# This is a basic workflow that is manually triggered

name: Manual unittest workflow

# Controls when the action will run. Workflow runs when manually triggered using the UI
# or API.
on:
  #cas trigger manuel
  #workflow_dispatch:
  #cas push
  push:
    branches: 'master'
  #cas pull request
  pull_request:
    branches: 'master' #[ $default-branch ]

# A workflow run is made up of one or more jobs that can run sequentially or in parallel
jobs:
  # This workflow contains a single job called "unittest"
  unittest:
    # The type of runner that the job will run on
    runs-on: ubuntu-latest

    # Steps represent a sequence of tasks that will be executed as part of the job
    steps:
      # Runs a single command using the runners shell
      - uses: actions/checkout@v3
      - name: Set up Python
        uses: actions/setup-python@v4
        with:
          python-version: '3.8'
      - name: Install dependencies
        run: |
          python -m pip install --upgrade pip
          pip install -r requirements.txt
      - name: Test with unittest
        run: |
          python -m unittest -v unittest/testunit.py
```

# 3-b: déploiement de azure web app service paramétrage github

Microsoft Azure

Home > p10-wapp

App Service

Search

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)

Essentials

Resource group (move) : p10-wapp-rg

Status : Running

Location : Central US

Subscription (move) : Paiement à l'utilisation

Subscription ID : 83d8ecaa-cbe4-4ae1-a829-d3a63be1315e

Tags (edit) : [Click here to add tags](#)

Reset publish profile

Share to mobile


Send us your feedback

URL : <https://p10-wapp.azurewebsites.net>

Health Check : Not Configured

App Service Plan : [ASP-p10wapprg-b304 \(B1: 1\)](#)

GitHub Project : [https://github.com/bilnab/p10\\_2](https://github.com/bilnab/p10_2)



Microsoft Azure

Home > p10-wapp

p10-wapp | Deployment Center

App Service

Search

Save Discard Browse Manage publish profile Sync

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Deployment

- Quickstart
- Deployment slots
- Deployment Center

Settings

- Configuration
- Authentication
- Application Insights
- Identity
- Backups
- Custom domains

Settings

Logs

FTPS credentials

Deploy and build code from your preferred source and build provider. [Learn more](#)

Source

GitHub

[Disconnect](#)

GitHub

Signed in as bilnab

Organization bilnab

Repository p10\_2

Branch master

Build

Build provider GitHub Actions

Runtime stack Python

Version Python 3.8

# 3-b: deploiement de azure web app service

## paramétrage de la startup commande

Microsoft Azure Search resources, services, and docs (G+/)

Home > p10-wapp

p10-wapp | Configuration ☆ ...

App Service

Search Refresh Save Discard Leave Feedback

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems  
Microsoft Defender for Cloud  
Events (preview)

Deployment  
Quickstart  
Deployment slots  
Deployment Center

Settings  
Configuration  
Authentication  
Application Insights  
Identity  
Backups  
Custom domains

Application settings General settings Path mappings

Stack settings

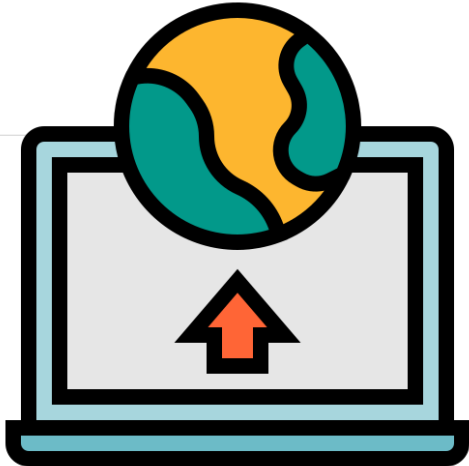
Stack Python  
Major version Python 3  
Minor version Python 3.8  
Startup Command python3.8 -m aiohttp.web -H 0.0.0.0 - ...  
Provide an optional startup command that will be run as part of container startup. [Learn more](#)

Platform settings

FTP state FTPS only  
FTP based deployment can be disabled or configured to accept FTP (plain text) or FTPS (secure) connections. [Learn more](#)

HTTP version 1.1

HTTP 2.0 Proxy On Off  
When this setting is enabled, front end will forward HTTP 2.0 traffic to the worker enabling scenarios like gRPC.



# 3-c: azure bot service

## parametrage du endpoint et des id/keys

Microsoft Azure

Search resources, services, and docs (G+)

Home > p10-channel

**p10-channel** | Configuration ☆ ...

Azure Bot

Search

Overview

Activity log

Access control (IAM)

Tags

Settings

Bot profile

**Configuration**

Channels

Pricing

Test in Web Chat

Encryption

Networking

Properties

Locks

Monitoring

Conversational analytics

Alerts

Metrics

Messaging endpoint

https://p10-wapp.azurewebsites.net/api/messages

☐ Enable Streaming Endpoint

Bot Type

MultiTenant

Microsoft App ID (Manage) ⓘ

40ee6c86-cce6-4f8f-b315-a19cf1b34e84

Application Insights Instrumentation key ⓘ

be8d3e38-9d15-4e3f-82c8-8af964ea2741

Application Insights API key ⓘ

API key (User-Generated Application Insights API key)

Application Insights Application ID ⓘ

Application ID (Application Insights Application ID)

Schema Transformation Version

V1.3

This determines how Bot Service converts messages sent between your bot and channel. [Learn more](#)

No OAuth Connection settings defined

[Add OAuth Connection Settings](#)

[Apply](#) [Discard changes](#)

# 3-c: azure bot service


## web bot channel fonctionnel

☰

Microsoft Azure

🔍 Search resources, services, and docs (G+/)

[Home](#) > [p10-channel](#)

**p10-channel** | Test in Web Chat ☆ ...

Azure Bot

🔍 Search

«

📄 Overview

📅 Activity log

👤 Access control (IAM)

🏷️ Tags

Settings

👤 Bot profile

🛠️ Configuration

🌐 Channels

💰 Pricing

**🖥️ Test in Web Chat**

🔒 Encryption

🌐 Networking

📊 Properties

🔒 Locks

Monitoring


📊 Conversational analytics

🚨 Alerts

📊 Metrics

Test

🔄 Start over



**Welcome to Bot FlyMe BOT**  
Our role is to help you to book your next trip

Get an overview

Ask a question

Learn how to deploy

À l'instant

hello

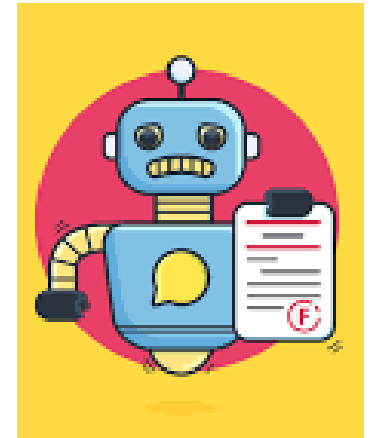
À l'instant

hello, I am flybot, how can I help you?

À l'instant

📎 Tapez votre message

➤





# MODEL UPDATE

# Savoir où on se trouve dans le cycle de vie



## MODELE EN DEBUT DE VIE

- MVP : peu de fonctionnalités
  - Dialogues peu évolués
    - Peu mature
    - Peu de volumétrie
- De nombreux ajustements à faire

## MODELE EN MILIEU DE VIE

- Mature
- Nécessite le développement de nouvelles fonctionnalités
- Nécessite des dialogues plus évolués
  - Volumétrie conséquente
- Peu d'ajustements à faire si on garde le même niveau de service



# Modèle UPDATE: Cas du modèle en début de vie

