La Minute CLOUD de JULES & LÉA

Azure Cognitive Services #1

Today we are going to talk about **Artificial Intelligence** (**AI**) with the **Azure Cognitive Services** (**ACS**) solution.

Great, I have a feeling this is going to be interesting as usual.

Obviously !

ACS, offers ready-to-use AI services that you can integrate directly into your applications.

Personally as a developer, I don't really have any skills in AI.

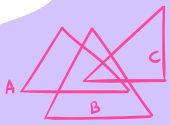
It does not matter, it is precisely the goal of using ACS which offers you cognitive functions available via **REST APIs** or through **SDKs**.

So, it's perfect because I love these concepts.

Great.

These functions can be classified into five main categories:

Vision, **voice** or speech, **language**, **decision support** and **Azure OpenAI**.



I think we can do a lot of things with this?!

Yes of course, we will try to tackle some use cases together.

Let's start with the vision.

Let's go.

The computer **vision API** allows you to process images or documents and interpret what is written.

As with a handwritten invoice that he could transcribe on the computer into PDF?

Yes, this is a very good example.

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Cognitive Services #2

The **Custom Vision API**, on the other hand, helps classify images.

You give it a series of images of fruits for example, and the API will apply the name of the fruits.

This reminds me of the Captcha system.

It's true, moreover the images have often been identified by an AI.

Afterthat, we have the **face API** which allows the detection and recognition of faces.

We could, for example, use it for identification?

Of course!

This is also one of the use cases at Microsoft, with Windows Hello to secure access to a laptop for example.

But this API can also be used to blur faces for privacy reasons.

It's really good !

Then, the **Speech APIs** which add voice functionalities to applications, such as voice recognition, voice synthesis or even voice translation.

Like to subtitle a movie?

Exactly.

APIs for the language will allow to understand and analyze text.

For translation?

Indeed, we could translate, a meeting in almost real time!

It's really awesome.

There's even an API called **Question Answering**, which can be used to design chatbots to answer custom questions.

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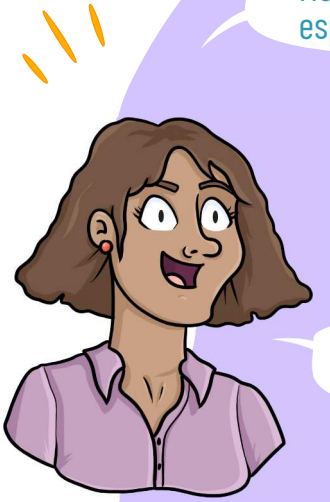
Azure Cognitive Services #3

Now let's move on to **Azure OpenAI**, which was born from the collaboration between Microsoft and the OpenAI company.

Moreover, we have heard a lot about in the recent months, especially with their **ChatGPT** solution.



Effectively.

Azure OpenAI offers AI tools based on OpenAI GPT-4, GPT-3, Codex or DALL-E models as REST APIs.

And I guess you can easily integrate them with other Azure services?

Of course !

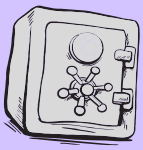
With **Azure Monitor** for the Monitoring part, or **Azure AD** for authentication.

But not only that, because the idea is also to easily integrate them into your applications.

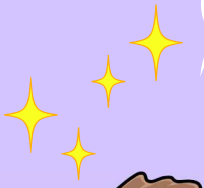
If we had to talk a little about security, once again, Azure has what it takes.

Data is encrypted both in transit and at rest.

Can we use our own encryption keys?



Of course, and you can store them in **Azure Key Vault**.



Great, but what about data privacy?

Excellent question.

Be aware that **no customer data** is used to re-train Azure OpenAI models.

It really reassures me.

To summarize, **Azure Cognitive Services** offers ready-to-use APIs, which can be integrated into its own applications,

and securely.

End