





QUI SOMMES NOUS ?



**IKHOUANE
SANSA**

Data Engineer - SIX



**SALHAB
CHARBEL**

Data Scientist - Murex SAS



OBJECTIF DU PROJET



Appliquer nos connaissances en IA et en Big Data pour développer cette application.



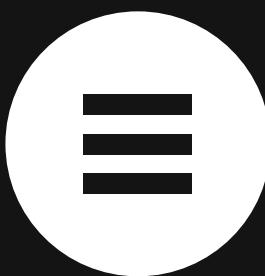
Application IA générant des playlists musicales personnalisées en fonction de l'humeur, genre, artistes sélectionnés par l'utilisateur, puis les ajoutant à Spotify.



Choix Cloud: Azure & Terraform (IaC)



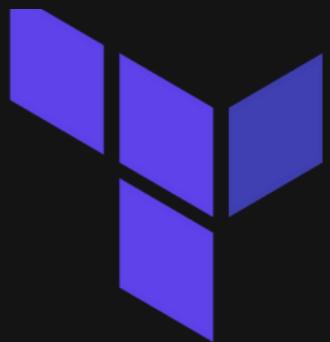
TECHNOLOGIES UTILISEES



CLOUD



AZURE



TERRAFORM

FRONT-END



BACK-END



python™



SMOLAGENTS



MAQUETTE MOODIFY

Moodify, AI-powered playlists tuned to your mood.
Get Started Now!

Genre

Jazz Rock Amapiano R&B
Latin Hip-Hop Hip-Life Reggae
Gospel Afrobeat Blues Country
Punk Pop

Submit

Energetic

Playlist

Drake Started From the Bottom
Cardi B Bodak Yellow
Jay-Z Empire State of Mind

Drop your favorite artist's name — let AI cook your playlist !

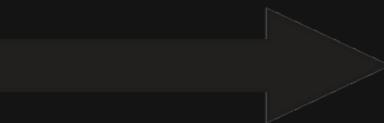
Enter artist name...

+

Playlist for : Kanye West

Kanye West Mercy
Kanye West Stronger
Kanye West Gold Digger
Kanye West Flashing Lights
Kanye West Jesus Walks

PARTIE IA : OPENAI VS SMOLAGENTS



```
agent = CodeAgent(  
    tools=[DuckDuckGoSearchTool()],  
    model=InferenceClientModel(model_id="Qwen/Qwen2.5-Coder-32B-Instruct")  
)
```

- Basculer de OpenAI vers les Agents (SmolAgents).
- Pourquoi SmolAgents ?
- API Flask Local.
- Utilisation de Flask pour aller chercher des résultats sur le web.

PARTIE IA : OPENAI VS SMOLAGENTS

```
@app.route("/generate", methods=["POST"])
def generate():
    data = request.get_json()
    mood = data.get("mood")
    genres = data.get("genres")

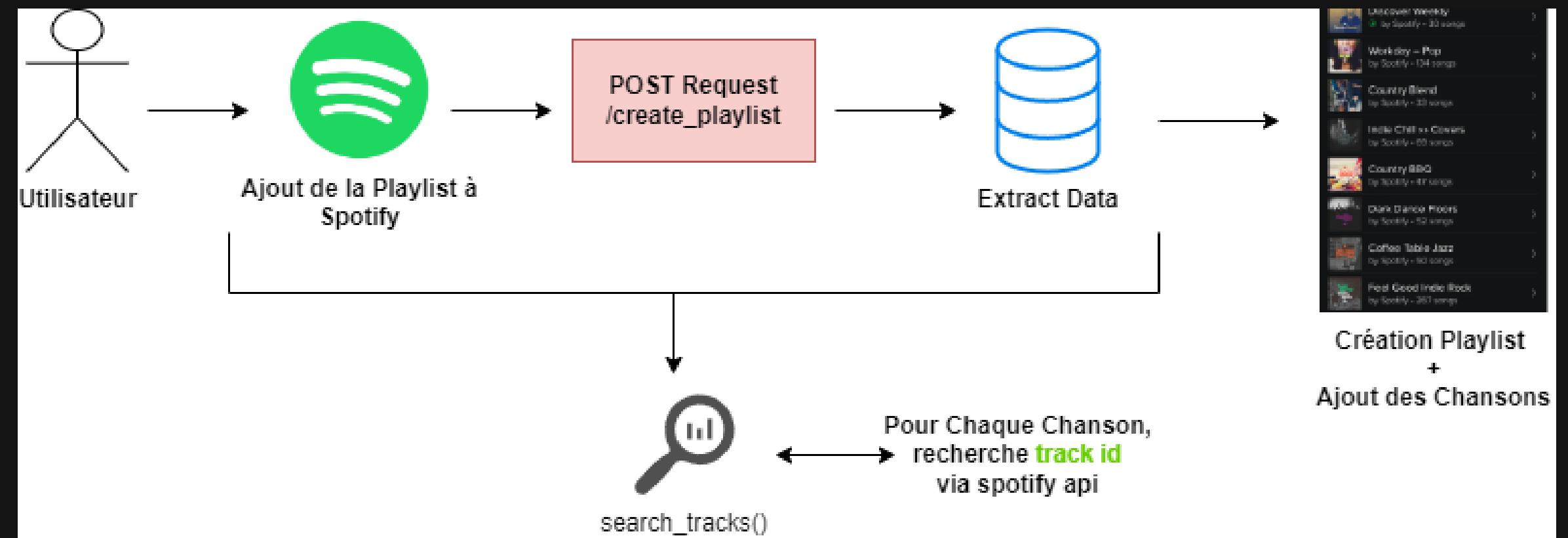
    prompt = (
        f"Generate a list of 5 songs for a user based on:\n"
        f"- Mood: {mood}\n"
        f"- Genres: {genres}\n"
        "Search online if needed. Return each song as a string in the format 'Artist - Title'."
    )

    # print(mood)
    print(genres)

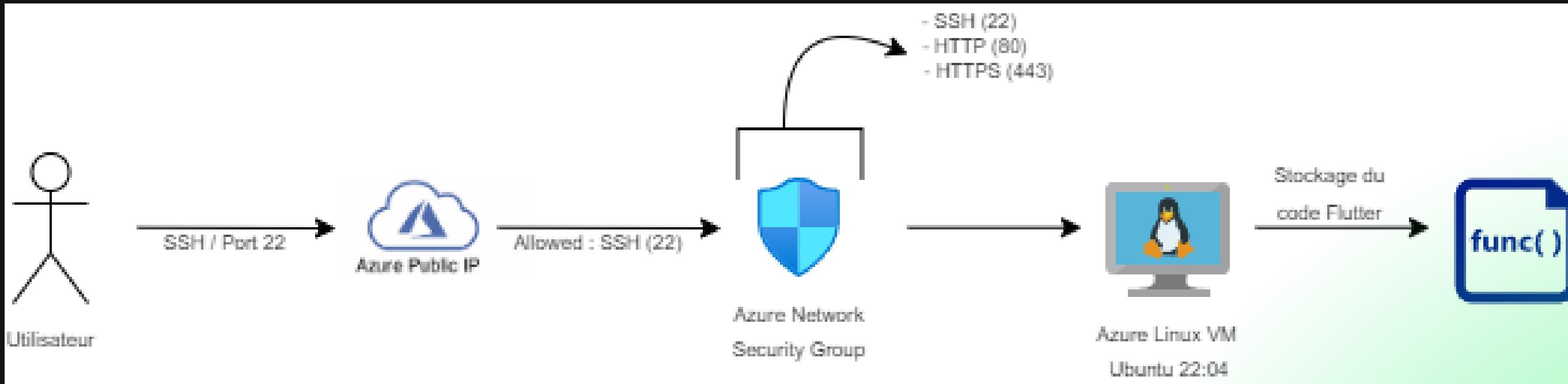
    try:
        response = agent.run(prompt)

        print("MODEL RAW RESPONSE:\n", response)
```

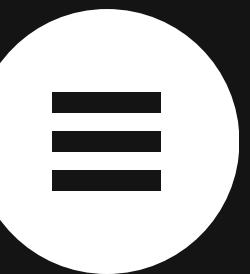
SPOTIFY



ARCHITECTURE CLOUD



- L'utilisateur accède à la machine via une connexion SSH.
- Machine virtuelle Azure (Ubuntu 22.04) héberge notre code source Flutter et le backend.



CONTACTEZ-NOUS

INFORMATIONS

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LOCATION

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MERCI POUR VOTRE ATTENTION



**QUESTIONS ? NON
MERCI ^^**

