



TUNIS BUSINESS SCHOOL  
UNIVERSITY OF TUNIS

# Awra9i

## Tunisian Municipalities DMS REST API

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# Overview

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3. Scalability
4. Challenges

The background of the slide is composed of two large, overlapping geometric shapes. A teal-colored shape occupies the top-left corner, while a light beige shape occupies the bottom-left corner. The rest of the slide is white. The word "Introduction" is centered in the white area.

# Introduction

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## municipalities problem

every tunisian citizen has had trouble in obtaining certain service or documents from the municipality due to the lack of organization and conservation of documents. In fact, one famous phrase that you would always hear from the employees would be 'come back tomorrow', a phrase that has caused the frustration of millions of tunisians throughout the year



# Introduction

inspired by E-Haouia

E-Haouia is a service that allows citizens to access, in a secure and fast way, digital administrative services and various online procedures through their unique identifier linked directly to their mobile phone number. [1]



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What is Awra9i?

# What is Awra9i?

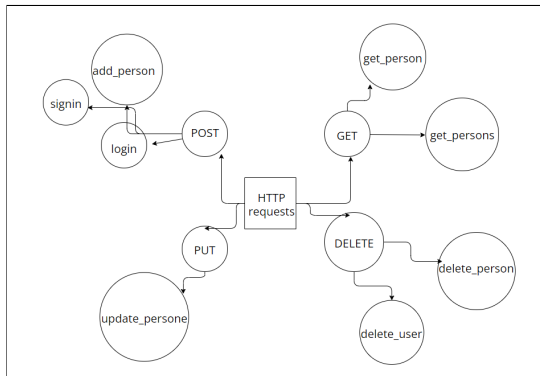
logo



# What is Awra9i?

## Definition, Functions and Features

Awra9i is **Tunisian Municipalities Document Management System DMS REST API**, it enables its users to send the following requests :






# What is Awra9i?

Technically



Backend: **Python/Flask** || Database: **MongoDB** || Testing: **Insomnia** || Security: **JWT**



Scalability

# Scalability

## Possible Enhancements



- Create a front-end.
- Make it accessible to all civilians.
- Make the API interact with several databases (not only municipalities..).
- Adding online social-services.

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# Challenges

# Challenges

Problems that I faced and how I overcame them

- ▶ Token Generation  
**solution: JWT.encode**
- ▶ Password Hashing  
**Solution: generate-password-hash**
- ▶ Token Requirement  
**Solution: Create a function token-required**

# Appendix : app.py and db.py



```
from flask import Flask
from flask_pymongo import PyMongo
from db import mongo

app = Flask(__name__)
app.config['SECRET_KEY'] = 'thisissecret'
app.config["MONGO_URI"] = "mongodb://localhost:27017/myDatabase"
mongo.init_app(app)

if __name__ == "__main__":
    app.run(debug=True)

from resources.persons import blp as PersonsBlueprint
from resources.users import blp as UserBlueprint

app.register_blueprint(PersonsBlueprint)
app.register_blueprint(UserBlueprint)
```

```
from flask_pymongo import PyMongo

mongo = PyMongo()
```

# References I



E-haouia.

[https://lapresse.tn/142513/  
digitalisation-de-ladministration-tunisienne-une-realite/](https://lapresse.tn/142513/digitalisation-de-ladministration-tunisienne-une-realite/).  
[Online; accessed 15-Jan-2023].