

SHYENA TECHYARNS



# Solid Waste Classification for a European Municipal Corporation



## **About the Client**

The End Client is a municipal corporation in Europe



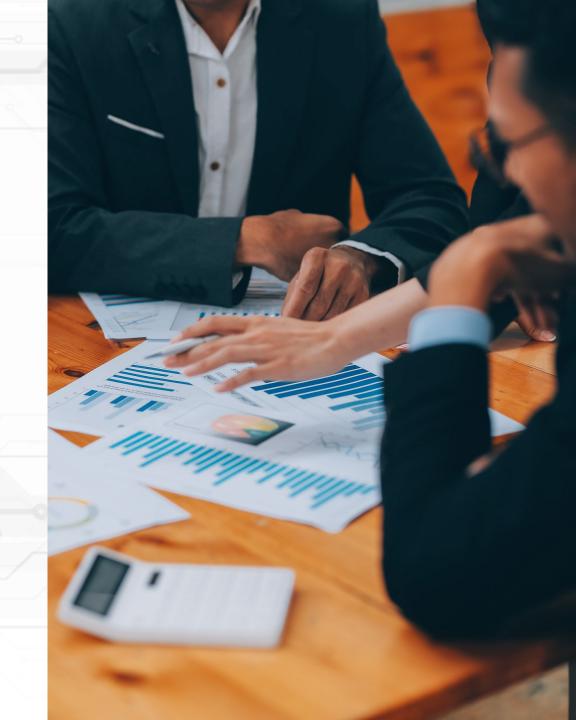


#### **Business Problem**

The municipality manages various waste containers for different types of waste like glass, plastic, food remains, and furniture. Larger waste items are often left near containers, causing delays in collection and frustration among citizens. The Smart City app allows citizens to report waste by uploading pictures, but the manual process of categorizing waste and creating tickets caused delays. The client wanted to automate ticket creation using AI to speed up waste clearance.









#### Solution

We developed custom AI Models to process the text & images uploaded by the citizens on the Mobile App. The AI Models were trained on the training images provided by the Customer. Based on the various type of wastes, the algorithm would return the right department. Along with image, the citizens would also write about the issue. Using NLP based Custom AI Models, we could classify the text, identify the correct department and return it to the App. Based on the AI Model inference, we also automated the task to create the ticket to the respective department. The manual ticket creation process was completely automated.





### **Outcome**

The solid waste is not getting cleared in quick time as the ticket creation is automated. The client is delighted as the citizens are happy with the services.

## **Technology Used**

Python, Flask RESTFUL APIs, TensorFlow, OpenCV, Deep Learning, NLP











#### **Office Locations**

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