

## AI Waste Segregator

### **Problem Statement :**

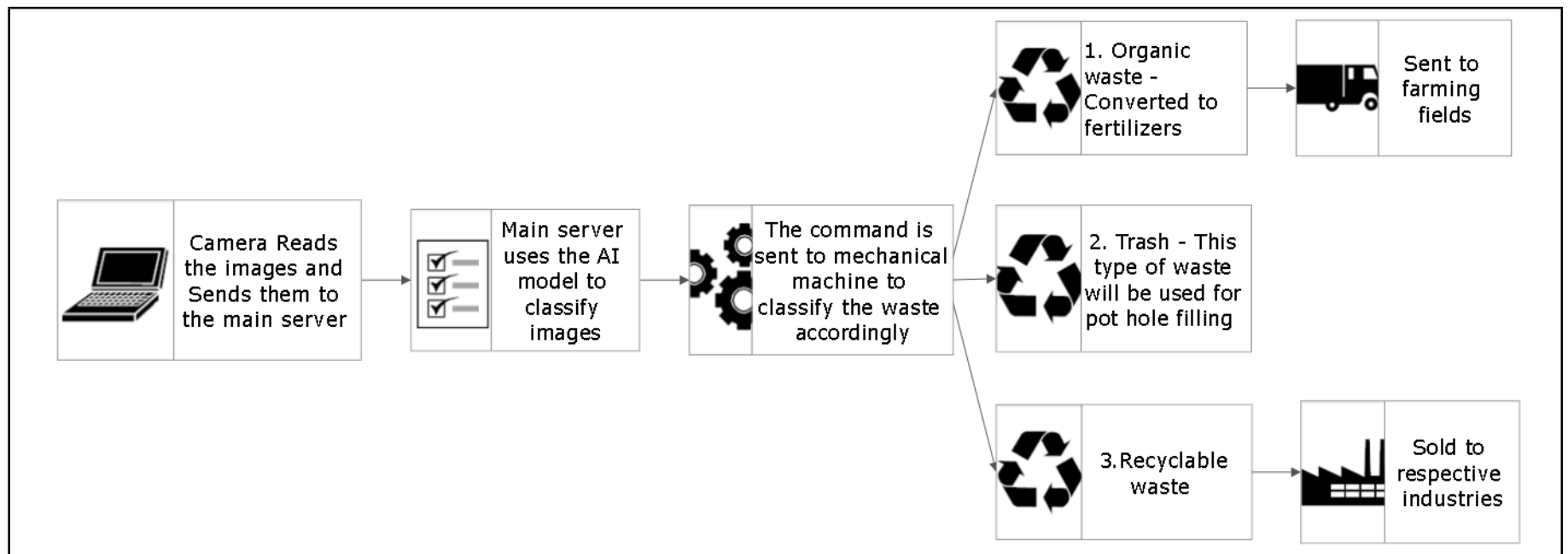
- Tonnes of waste is generated daily leading to landfills and pollution.
- No proper waste collection and management system.
- Waste classification

### **Brief Summary of your solution**

The aim is to make the city clean and at the same time make use of the generated waste for other purposes. The municipality will bring the waste to the waste management facility where the AI technology will be used to categorize it and each category will result into commercial product. This will be of great use in the smart city initiative.

### **Approach & tech**

- The approach will be to divide the waste based on its use and then The waste will be sent to management facilities where cameras are installed and the classification will be done, which will be done by mechanical machines on the command from AI.
- Tech to be used:
  - Python
  - ML



- India's waste management market is expected to be worth US\$ 13.62 billion by 2025.
- Firstly, this project will be of great interest to the govt. So, they will surely want to implement it. Second of all, waste can be interpreted as a gold mine. The compost waste will be sold as organic fertilizers and recycled waste will be sold to companies. Further, this tech will be used by industries to segregate the machinery waste for recycling.

## Current

- India produces 62 million tons of solid waste per year, but only about 75-80% of the municipal waste gets collected and 22-28% of that waste is processed and treated.
- It has been estimated that by 2030, India will need a landfill the size of Bengaluru if the current waste management scenario does not improve.
- This results in pollution and further resulting in communicable diseases.
- This problem will further increase in the urban areas when population will increase, leading to increase in consumption and waste.

## After

- This technology will not only reduce the landfills but also use waste for meaningful purposes.
- This project will reduce the urban waste by 60%.
- The Indian waste management industry offers huge potential, as only 30% of the 75% recyclable waste is being recycled currently.