Powerplant Project

- By
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Objective

- Calculate power each of a multitude of different powerplants need to produce when the load is given and taking into account the cost of energy source.

Problem Statement

We can not store the electricity in a cheap way.

We need to predict the **demand** about electricity consumption

There are 3 types of **powerplant** for 3 types of energy

- Gasfired (gas)
- Turbojet (kerosine)
- Windturbine (wind)

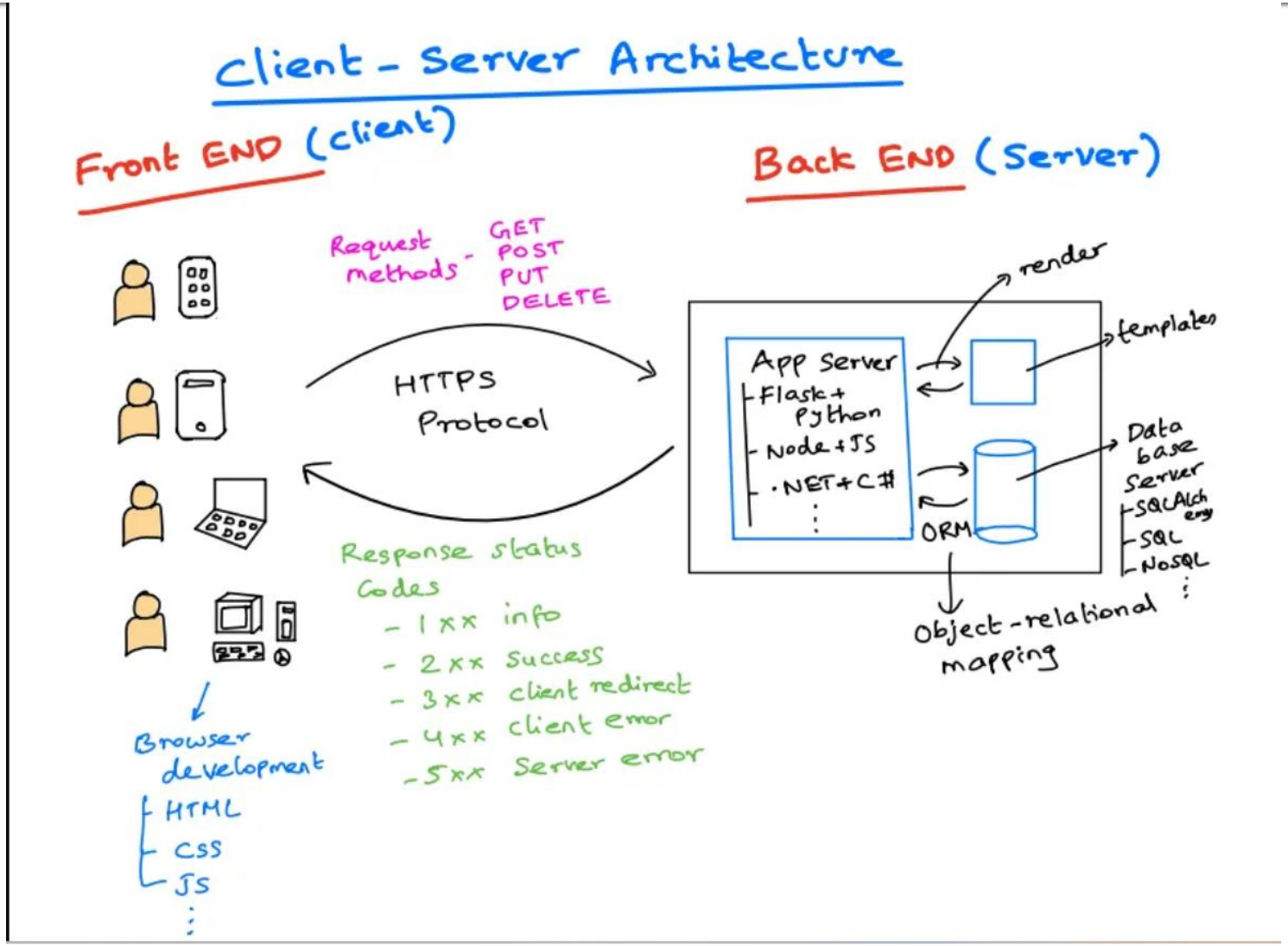
Challenge

1. We have to figure out the best combination of power plants to use, considering their costs and how much electricity they can produce.
2. We have to consider both their maximum capacity (Pmax) and this minimum amount they have to generate (Pmin)
3. Goal is to supply the needed electricity at the lowest cost by choosing the right combination
4. Establishing the merit order, a crucial factor in determining the activation sequence of power plants and the corresponding power output

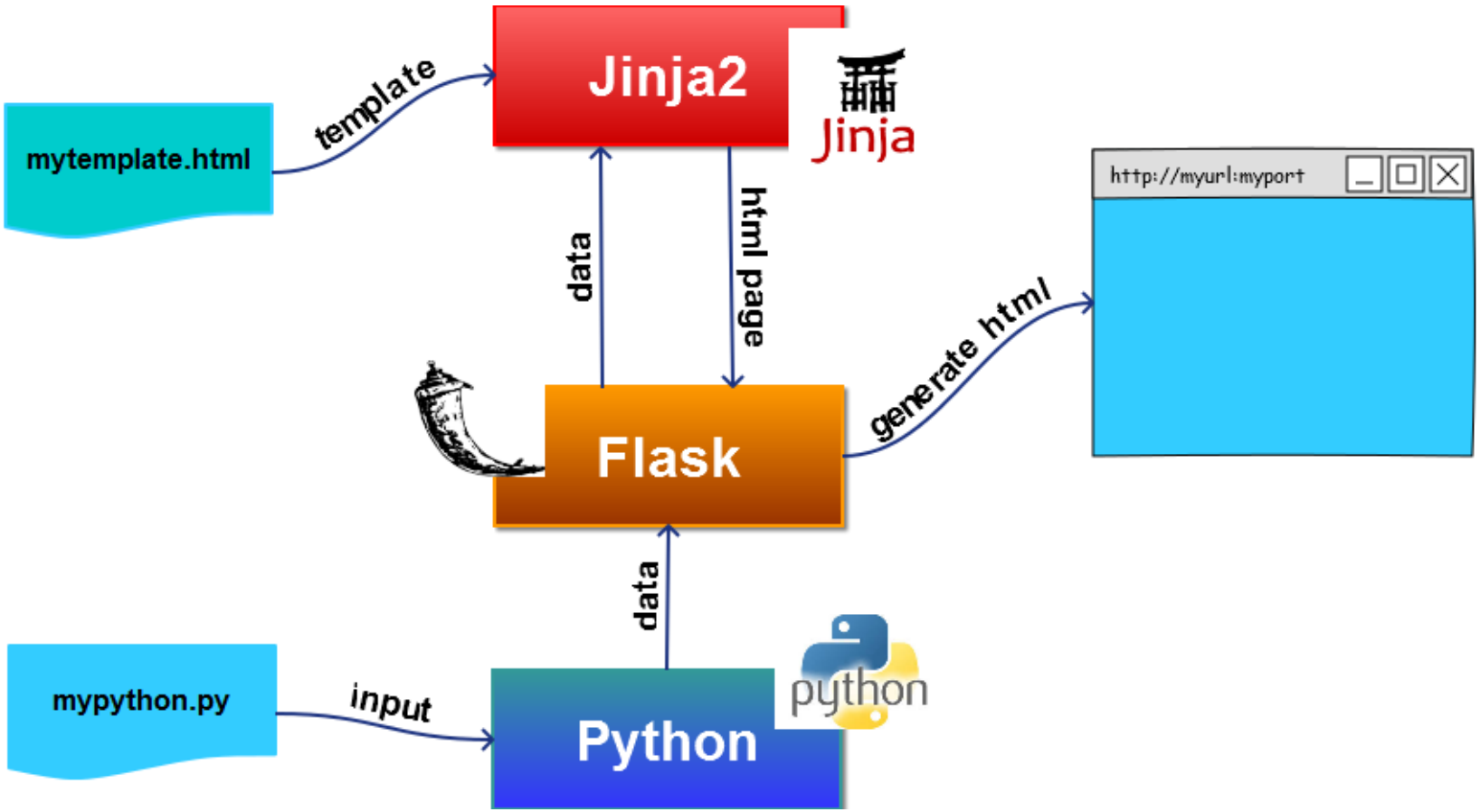
Solution

1	This sequence is determined based on the cost of fuels associated with each power plant.	Decisions on which power plants to activate and the quantity of power they will generate.
2	The selection process relies on the cost of energy production from these power plants.	Uniform cost search algorithm
3	Generate multiple path options	choose the path with the lowest cost for our electricity production

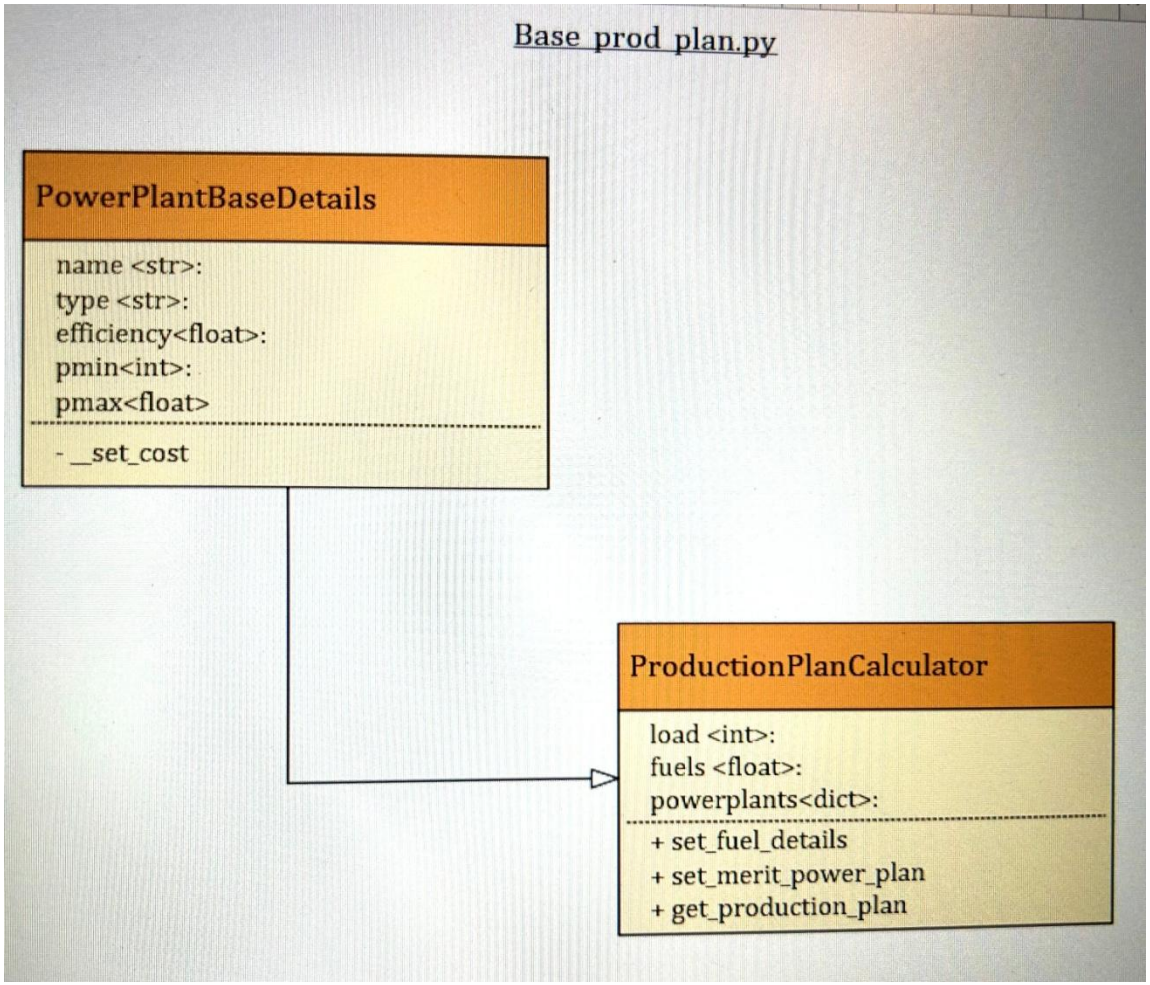
Client-Server Model



Flask Architecture



Class Diagram



DEMO

Code WalkThrough

Thank You