

Mobile Factory code challenge

Description

At Mobile Factory Pvt Ltd. we sell configurable mobiles, you can configure one for us to manufacture it.

When ordering a mobile, a customer must configure the following parts:

- Screen (LED, OLED or AMOLED)
- Camera (Wide-Angle or Ultra-Wide-Angle)
- Port (USB-C, Micro-USB or Lightning)
- OS (Android or iOS)
- Body (Metal or Plastic)

An order will be valid if it contains one, and only one, part of Screen, Camera, Port, OS and Body.

If an order is valid, the priced order should be calculated.

What to do

Initial Data

Given input data (Need to be stored locally in the memory, No database need to be used)

Code	Price	Part

A	10.28	LED Screen
B	24.07	OLED Screen
C	33.30	AMOLED Screen
D	25.94	Wide-Angle Camera
E	32.39	Ultra-Wide-Angle Camera
F	18.77	USB-C Port
G	15.13	Micro-USB Port
H	20.00	Lightning Port
I	42.31	Android OS
J	45.00	iOS OS
K	45.00	Metallic Body
L	30.00	Plastic Body

Implement an API to create the order of a phone given a list of component codes.

Input

```
HTTP POST /orders { "components": ["I","A","D","F","K"] }
```

Output

```
201
{
  "order_id": "some-id",
  "total": 142.3,
  "parts": [
    "LED Screen",
    "Wide-Angle Camera",
    "USB-C Port",
    "Android OS",
    "Metallic Body"
  ]
}
```

Requirements

- Please write clean code
- We are going to look for good design and architecture
- Please provide unit tests
- Don't use any database or library.
- Please provide `README.md`, explaining how the project works and all instructions required to run the project

