SMARTGRID
Cloudflight Coding Contest
30th October 2020

In order to better adjust power consumption to power production, electricity price is now determined by supply and demand. When excess power is produced, the electricity price is lowered, which will increase consumption. Since renewable energy sources like wind and sun are weather dependent which can change any minute, power prices are adjusted every minute.

CODING CONTEST

YOUR TASK

- You'll program an AI smart home assistant that will schedule the operation of all electrical devices in a household, and later of all households of an entire city.
- You'll have to find ways to draw the power at the cheapest possible moment to match the power production.

event organizer cloudflight

INCOMING
CALL

Glowy:

POWER!!! Infinite, raw power 😛

...

... so said my agent.

By the looks of you, we're doing something a lot simpler, right? ... right. No Avengers level stuff for me.

You know, I might look like a lightbulb, but I got a lot going for me. I'm smart, ok? I'll help, just ... listen.

Oh and I'm funny, too.

event organizer cloudflight

Glowy:

Alright, so there's this "smart" neighborhood we're planning to manage... no, I shouldn't start from there.

So there's this thing, electricity, and it costs money...

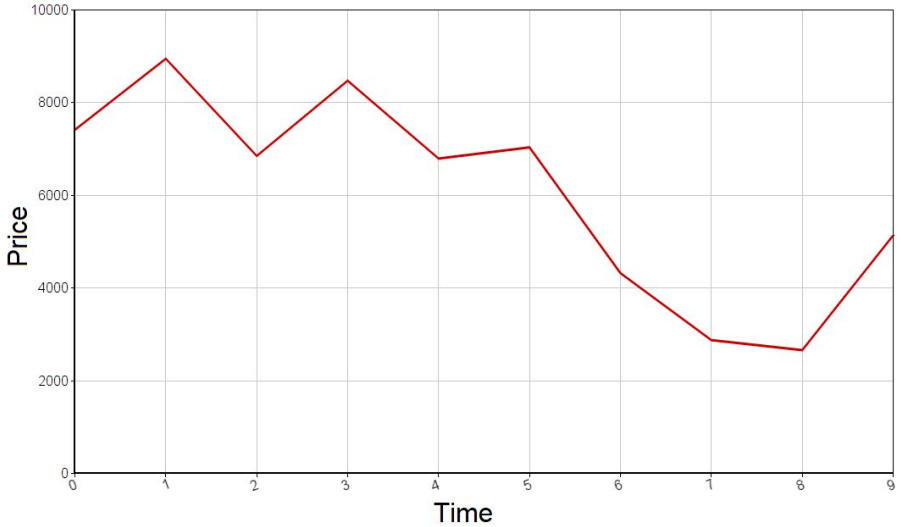
.

Task for Level 1:

Find the cheapest power price during the given timespan

event organizer cloudflight

- The electricity price changes every minute
- You are given the prices for a certain timespan
- Find the minute with the cheapest power price



event organizer cloudflight

	Input	Output
Format	N price (repeats N times)	minPriceId Find the minute where the price is the lowest, **ids start at 0**, if there are multiple minutes that all have the lowest value, take the one with the lowest id
Types	**N (int) number of minutes that follow** **price (int) price of power at that minute**	**minPriceId (int)**
Example	10 7414 8948 6850 8474 6794 7035 4322 2876 2660 5136	8

event organizer cloudflight

CHECK
CHECK
CHECK
CHECK
CHECK
CHECK
SMARTGRID
GOOD LUCK