

● Topics

1. Stack
2. Caching
3. Queuing
4. Find the error
5. Memory Map
6. Make an API

● Questions

1. On a fine morning you have gone to a market. There are 4 stores in the market and the products they sell are - fish , vegetables , fruits , dairy . You are given a big-shopper to hold upto X kgs and Y rupees . Your mother has given a list where minimum quantities of items are listed and told you have to fill the bag completely. Now , you wish to save some money . But you also have to keep your mother's words. So can you save some money ? If yes , tell the item which is least in quantity in your bag now.

You have to fill the bag in such a way that -

- A. The item with least weight becomes important to fill first
- B. After each step , every item will be filled with a weight of 100 gms extra of previous weight

Items	Price
Fishes	1000/kg
Vegetables	1500/kg
Fruits	500/kg
Butter	1000/kg

Inputs:

...

Bag(X) : 4 kgs

Money(Y) : 4000

List (Minimum) : Fish = 500gm , Vegetables = 1kg , Butter = 500gm , Fruits = 400 gm

...

<Topic : Stack , Caching>

2. You have a xerox shop which runs K hours . Its a busy day and X no of customers are coming per hour. You have price-list for each kind of xerox . In the few next hours of closing the shop , some more customers came but as your shop was closed by that time , your helper enlisted their services and told them to come tomorrow. You get the list from him . **Now tell if it was the day of gain or day of loss by making difference between your net income to the customers services after the shop was closed.**

Items	Price
Color Xerox	10/page
passport xerox	100/page
photocopy	80/page
B&W xerox	50/page

Inputs:

...

K = 4

Hour	Total Cus	Color Xerox	passport xerox	photocopy	B&W xerox
1	2	2	0	4	4
2	4	0	2	2	4
3	0	0	0	0	0
4	2	1	0	0	1
5	2	4	0	0	0
6	1	1	1	1	1

...

<Topic : Queuing>

3. You are building an app which generates specific secret codes based on the input it gets. Your app contains 2 components - **encoder and decoder** . The decoder takes your identity and the encoded data as input and then decode it to get the original input . Suddenly after generating decoding some data , your decoder started giving errored outputs. What can be the reason behind this error ?

(More than one answer may be correct)

- a. NameError

- b. KeyError
- c. Database Error
- d. TypeError
- e. ServerError

<Find the error>