

Python Fresher Practical Test

We want to manage inventory and ordering of a milk shake maker. We have an inventory of items as `items.json` which should contain a json array of items as below.

```
{
  "items": [
    {
      "id": 1,
      "name": "Chocolate Milk",
      "type": "base",
      "price": 100,
      "available_quantity": 5
    },
    {
      "id": 2,
      "name": "Kesar Milk",
      "type": "base",
      "price": 120,
      "available_quantity": 7
    },
    {
      "id": 3,
      "name": "Faluda Milk",
      "type": "base",
      "price": 110,
      "available_quantity": 6
    },
    {
      "id": 4,
      "name": "Icecream Scoop",
      "type": "addon",
      "price": 50,
      "available_quantity": 9
    },
    {
      "id": 5,
      "name": "Rose Petals",
      "type": "addon",
      "price": 25,
      "available_quantity": 8
    },
    {
      "id": 6,
      "name": "Chocolate chips",
      "type": "addon",
      "price": 20,
      "available_quantity": 2
    },
    {
      "id": 7,
      "name": "Oreo Biscuit",
      "type": "addon",
      "price": 30,
      "available_quantity": 5
    }
  ]
}
```

This json contains 2 types of items which can be distinguished with "type" attribute.

1. Base Item
2. Add on item

We want to create a console application for creating orders for the customized milk shakes and view statistics of the ordered items. Requirements are as below:

Start Up Module

Initially, when program starts, it should ask for two choices

1. Create Order
2. View Statistics

If user enters 1, it should open the create order module, if enters 2 it should go to view statistic module.

Create Order Module:

User should see the items with type=base first to order first and choose from that with entering it's sequence number.

Ex.

1. Chocolate Milk
2. Kesar Milk

After selecting the base item, the user should see the choices to select add ons items and one more item as per the sequence Done to finish the add on selection and move to order summary.

Ex.

1. Rose Petals
2. Chocolate chips
3. Done

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User should be able to select add ons repeatedly. User can add a maximum of three add ons per order. If the same add-on is selected multiple times, its quantity should be adjusted accordingly. After selecting all the three add ons, app should move to the order summary.

Also, if the quantity of base or add-on items is not available when selected, it should show a message: "Sorry, this item isn't available, please select other".

After selecting Done or selecting 3 add-ons, the app should show the order summary like below example with two choices. 1. Confirm 2. Cancel

Item	Qty	Price
Chocolate Milk	1	100
Chocolate Chips	1	20
Icecream Scoop	2	100
Oreo Biscuit	3	90

Total : 310

1. Confirm
2. Cancel

If user selects 2, app should move to the startup module.

If user selects 1, the order should be stored in a file `order.json` within an array named `orders` and quantity of the item should be updated accordingly in `items.json`.

Ex `orders.json`.

```
{
  "orders": [
    {
      "order1": 1
    },
    {
      "order2": 2
    }
  ]
}
```

View Summary Module:

When the view summary is selected from the startup module, it should show which item ordered how much quantity, available quantity and item wise selling done. Data in `orders.json` should be used for it

Ex.

Item	Qty sold	Available Qty	Sold amount
Chocolate Milk	3	2	300
Chocolate Chips	2	0	40

Total Revenue Generated: 340