Problem-Order Matching System

You are given the problem of company for matching of orders -similar to stock exchanges.

You would be having two Table to work on namely-“Pending Order Table’’ and “Completed Order Table”.

In which the given table below is the list of pending orders in the system.

Pending Order Table			
Buyer Qty	Buyer Price	Seller Price	Seller Qty
10	99	100	20
50	98	101	20
70	97	102	130
80	96	103	150
10	96	104	70

In which this data represents is called as ‘Pending Order Table’. Wherein When the price of buyer and seller matches , The data is Moved from Pending Order Table to “Completed Order Table’’.

Completed Order Table	
Price	Qty
100	20

To Further Understand the Order matching Certain examples are given.

Example 1

Existing Pending Order table

Pending Order Table			
Buyer Qty	Buyer Price	Seller Price	Seller Qty
10	99	100	20
50	98	101	20
70	97	102	130
80	96	103	150
10	96	104	70

Existing Completed Order Table

Completed Order Table	
Price	Qty
100.5	50

New Input =Buyer, Qty=20, Price=100

Results:

Then the resulted Pending Order table would be

Pending Order Table			
Buyer Qty	Buyer Price	Seller Price	Seller Qty
10	99	101	20
50	98	102	130
70	97	103	150
80	96	104	70
10	96	105	10

Completed Order Table	
Price	Qty
100	20
100.5	50

Example 2

Existing Pending Order table

Pending Order Table			
Buyer Qty	Buyer Price	Seller Price	Seller Qty
10	99	100	20
50	98	101	20
70	97	102	130
80	96	103	150
10	96	104	70

Existing Completed Order Table

Completed Order Table	
Price	Qty
100.5	50

New Input Buyer, Qty=100, Price=100

Results:

Then the resulted Pending Order table would be

Buyer Qty	Buyer Price	Seller Price	Seller Qty
80	100	101	20
10	99	102	130
50	98	103	150
70	97	104	70
80	96	105	10

Completed Order Table	
Price	Qty
100	20
100.5	50

Whereas the new orders placing could be done both by Buyer and Seller

Task

- You are required to design the required table-**Pending Order Table** (Table 1). Wherein the list of pending order is shown.
- The Table 2 to Would be the **Completed Order Table**. Wherein those orders whose price have matched would be shown.
- And you are required to design and add functionality of form wherein a user could select Buyer and Seller and place a new Entry.
- You are required to create dynamic line charts which would be showing the matching order price in chronology. The earliest matched order would have the last point in the chart.
- The candidate would have 3 days to complete the given problem.

Evaluation Criteria

Your solution will be evaluated based on the following criteria:

- Correctness: Does the application correctly displays the data in the required tables, And whether the data is being moved to order completed table at the price matching.
- Code quality: Is the code well-written, easy to understand, and maintainable?
- User experience: Is the application visually appealing and easy to use?
- Test coverage: Are there sufficient tests to ensure the correct behaviour of the application?

Bonus

- Bonus points would be given if you estimate and take out all the possible cases in order matching system and create a back-end functions accordingly.
- Any other Possible Front-end function Integrated.
- Loader Icon while placing order
- Quality and timely response of the charts and other effects to make it user friendly.
- To correctly estimate all DSA when the orders gets matched and the buyer price>seller price . The order would be still considered as matched.

Submission

You are required to host the file at your GitHub repository and host the application and send the domain name to the Hirect Chat or to mail id.

*Disclaimer-This is a test is for skill assessment purpose only and your response wouldn't be used by the company in their commercial use.