Trading Q

Develop an application in C for stock trading. The rules for stock trading are as follows.

- ❖ At any stage a person cannot have more than 5 companies shares.

- ❖ When person buy share (enqueue), details like share name, date, price and quantity are stored in "Trading Q". Date can be taken as string like "22-12-2020".

- ❖ Customer can sell only oldest shares. This Trading Q allows partial selling also. That means if 100 numbers of 'A' company shares are present, user can sell 20 or 50 or any number less than 100 also. Assume suitable stock price at the time of selling.

- ❖ If customer want to by new share/s (if already shares of 5 companies are present), automatically dequeue the required number of company shares to accommodate newly purchased shares.

- ❖ Trading Q provides lookup method to find whether customer has 'X' company share or not.

- ❖ With special function, customer can topup existing company shares (ie. If customer already has 50 shares of 'A' company, he/she can add any additional shares of same company irrespective of location of share in Trading Q).

- ❖ All transactions should be recorded in separate, suitable data structure. Transaction details noted are: date, Company name, quantity, price and buy or sell.