

CE251 Java Programming Practical Exam

Write a program that keeps record of stock market trades. Program stores following information about each trade: **(Use Collection Class)**

(Define each and every variable as private and then pass the value)

Description	Type and/or size
Id	int
Name of the company	max. 80 characters
Number of shares	int
Purchase price of the shares	float/double
Date of purchase	string (or whatever type you think is appropriate)
Sell price of the shares	float/double
Date of sale	string (or whatever type you think is appropriate)

The program must have (at least) following operations:

1. initialize Company (ID, Name of Company, No of Share Issue)→ add more than two company details and perform all the operation.
2. buy shares - quantity are subtract form the company quantity.
3. sell shares – quantity are subtract from buy share quantity.
4. read data of (Buy Shares, Sell Share, Final Shares)
5. print a report which prints list of all shares that you still own followed by the total price of the shares.
6. Print a report of all sold shares. Display profit/loss per sale. Print total profit/losses at the end of the report.

The program should be terminated once User enter **“Exit”** message on the console till selling and buying are performed.

Data Shown in like below format also certain notes are place so please consider do as required.

Company Data:

ID	Name of Company	No of Share Issued	Per Share Price	Total Cost
1	ABC	50	10	500
2	XYZ	150	15	2250
3	DEF	200	20	4000

Buy Data:

ID	Name of Company	Date of Purchase	No of Share Buy	Buy Share Price	Total Purchasing
1	XYZ	8-11-2022	50	50	2500
2	DEF	1-11-2022	50	40	2000

- **Buying shares must be removed from the original quantity of company data.**
- **If the User tries to buy more share which is not available in company data, it must be thrown an exception but not terminated code. And give chance to rebuying. And also show how many share are available in company data.**

Selling Data:

ID	Name of Company	Date of Selling	No of Share Sell	Selling Share Price	Profit/Loss	Total Selling	Status
1	XYZ	09-11-2022	30	80	900	2400	Profit
2	DEF	22-11-2022	20	20	400	2000	Loss

Total Profit/Loss: 100 Rs Profit

If loss happened then the red font must be changed as “Loss”

- **Selling shares must be removed from the Buying Data also reflect all the data in buy data.**
- **If the user tries to sell more share which is not in buying data then its not allowed to do that thrown exception but continue the selling and print amount of share which is available for selling.**
- **Back-date selling from the buying is not allowed.**