

Bind with Structure, Arrays ,pointers and functions.

Project Title: Stock market profit and ranking

During Covid19 pandemic situation Indian government had imposed a strict lockdown in view of public security and safety. Due to lockdown many business has incurred huge loss .Among them Arun was one who had incurred heavy loss in his business. So Arun decided to overcome the loss by investing and started doing trading in stock market with the available amount what he had.

Arun started trading in stock market and purchased 10 stocks and earned some profit. But he was not able to calculate the profit he got. As per stock market on purchase of any stock there will be 7% of brokerage as well on selling any stock there also has 7% of brokerage charges.

Arun was confused and not able find his total profit earned. And also based on the profits earned, he decided to give ranking to the stocks which has gave more profit to him.

Following is the ranking given to the stock based on total profit earned.

Total profit $\geq 20\%$ then “**Best stock**”

Total profit $< 20\%$ and $\geq 15\%$ then “**Good stock**”

Total profit $< 15\%$ and $\geq 10\%$ then “**Average stock**”

Total profit $< 10\%$ then “**Poor stock**”

Input:

Create a structure to read following details of a stock

- ❖ Name of the stock
- ❖ Stock Quantity
- ❖ Buy stock price
- ❖ Selling Stock price

Output:

- ❖ Name of the stock
- ❖ Total profit earned for each stock and
- ❖ Ranking for each stock.

Sample Input:

Name of stock	Quantity	Buy_price	Sell_price
SBI	50	100	140
TATA MOTORS	100	104	136
ZEEL	200	180	225

Sample Output:

Name of stock	Total Profit_Earned	%Profit	Rank
SBI	1160	23.2	Best stock
TATA MOTORS	1520	14.62	Average stock
ZEEL	3330	9.25	Poor stock

Explanation:

Purchase price=Quantity*Buy_price
=50*100=>5000

Buy_brokerage=5000*7/100=>350

$$\begin{aligned}\text{Selling_price} &= \text{Quantity} * \text{Sell_price} \\ &= 50 * 140 \Rightarrow 7000\end{aligned}$$

$$\text{Sell_brokerage} = 7000 * 7 / 100 \Rightarrow 490$$

$$\begin{aligned}\text{Total_profit} &= (\text{Selling_price} - \text{Purchase_price}) - \\ &(\text{Buy_brokerage} + \text{Sell_brokerage}). \\ &= (7000 - 5000) - (350 + 490).\end{aligned}$$

$$\text{Total_profit} = 1160.$$

Find Total_profit is what % of Purchase_price.

i.e 1160 is what % of 5000 (23.2%).

Finally based on the % of profit allocate ranking for each stock.