

Description

Solution

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[MySQL] Single group by + SUM solution.



ttsugrii

★ 117

Last Edit: April 10, 2020 11:09 PM 529 VIEWS

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Let's say all buy/sell pairs are represented as $(b_1, s_1), (b_2, s_2), \dots (b_n, s_n)$ then what we are looking for is $(s_1 - b_1) + (s_2 - b_2) + \dots (s_n - b_n)$. Because of associativity we can remove all parenthesis and shuffle all operands any way we want without affecting the final sum, so there is no need to pick up the buy price for the corresponding sell price.

```
SELECT stock_name, SUM(
    CASE
        WHEN operation = 'Buy' THEN -price
        ELSE price
    END
) AS capital_gain_loss
FROM Stocks
GROUP BY stock_name
```

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mbpwce

★ 2

March 29, 2020 1:47 AM

Can you please explain how this works ? As in how does the logic pick up the buy price for the corresponding sell price.

1

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lkzeng

★ 176

April 21, 2020 6:26 PM

As a beginner to SQL, learned something new today - the CASE statement used in SUM is cool!

0

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fmrey

★ 34

April 10, 2020 11:03 PM

clever use of -price

0

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