

Stock picker

A company named EndGameAnalytics needs to provide a tool all their agent to help them calculate stock analytics. The fun part is all the company agents are developer so they are well versed with command line tools.

You have to create a command line tool which will take user inputs like `start_date`, `end_date` and `stock_code`(all alphabets) and display following metrics:

- Mean value of the stock between the dates
- Standard Deviation of the stock between the dates
- On what date should the agent buy and on what date he/she should sell the stocks to gain maximum profit. He is only allowed to buy and sell once in between the selected dates.
- Profit achieved by buying and selling on the dates calculated above. (Assume he buys 100 units of stocks)

To make it better we have to help the agent to make selection faster. To do that let's say he inputs `stock_code` as "AICIX" but there is not match but there is a very close match with the name "AICIXE" then prompt the user *"Do you mean AICIXE (y/n)?"*

CSV format

| StockName | StockDate | StockPrice |
|-----------|-------------|------------|
| AICIXE | 20-Jan-2019 | 20.453 |
| AMBKP | 20-Jan-2019 | 30.500 |
| AICIXE | 21-Jan-2019 | 21.000 |
| AMBKP | 22-Jan-2019 | 29.321 |
| AMBKP | 24-Jan-2019 | 35.453 |

so on...

To be noted:

- CSV records can have any order and dates can be any order.
- In case of missing date use the previous day stock price.
- keep in mind the code never crashes and all edge cases are handled properly.
- Do not use **pandas** and **numpy**.

- You can make the output better by adding your extra communication for handling agents, showing loaders, adding support for all date formats, etc, etc. Go innovative.
- Test cases are added points.
- Push the code in a public repo on github and share the link with us.

Example:

```
$python stock_picker.py "pathtocsv"
```

```
"Welcome Agent! Which stock you need to process?":- AICIX
```

```
"Oops! Do you mean AICIxE? y or n":- y
```

```
"From which date you want to start":- 20-jan-2019
```

```
"Till which date you want to analyze":- 30-Feb-2019
```

```
"Here is your result":- Mean: 20.45, Std: 30.34, Buy date: 21-  
Jan-2019, Sell date: 25- Jan-2019, Pro  
fit: Rs. 450
```

```
Do you want to continue? (y or n):- ..
```