Fintech Engineer Test

Instructions:

- You have 30 minutes to finish to test
- Internet is allowed for this test
- Please use Python to finish this test

Task 1

You are given a csv file, "ssa_fb.csv", which is raw and uncleaned data of Facebook's balance sheet. You're required to re-organise the data to the following format

	June 30, 2018	December 31, 2017
Assets	nan	nan
Current assets:	nan	nan
Cash and cash equivalents	11,552	8,079
Marketable securities	30,757	33,632
Accounts receivable, net of allowances of $198 and $189 as of June 30, 2018 and December 31, 2017, respectively	5,590	5,832
Prepaid expenses and other current assets	1,934	1,020
Total current assets	49,833	48,563
Property and equipment, net	18,357	13,721
Intangible assets, net	1,573	1,884
Goodwill	18,263	18,221
Other assets	2,265	2,135
Total assets	90,291	84,524
Liabilities and stockholders' equity	nan	nan
Current liabilities:	nan	nan
Accounts payable	$419	$380
Partners payable	440	390
Accrued expenses and other current liabilities	3,720	2,892
Deferred revenue and deposits	91	98
Total current liabilities	4,670	3,760
Other liabilities	6,239	6,417
Total liabilities	10,909	10,177
Commitments and contingencies	nan	nan
Stockholders' equity:	nan	nan
Common stock and additional paid-in capital	41,832	40,584
Accumulated other comprehensive loss	(687)	(227)
Retained earnings	38,237	33,990
Total stockholders' equity	79,382	74,347
Total liabilities and stockholders' equity	90,291	84,524

Task 2

Base on the result of Task 1, calculate the following financial ratios

- Current Ratio
- Yearly Percentage Change of each item

Task 3

Send request to get AMZN.NASDAQ daily data from our API server, given the sample address is like,
http://data.invbots.com/api/stock_price_daily?stock_code=aapl&exchange=nasdaq&date_from=2017-01-01&date_to=2018-01-01

And calculate the average of daily return from 2016-01-01 to 2017-12-31