In [1]:
```python
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:
```python
#read csv file
fundamental = pd.read_csv('fundamentals.csv')
```

In [3]:
```python
fundamental
```

Out[3]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
0	0	AAL	2012-12-31	3.068000e+09	-222000000.0	-1.961000e+09	23.0	-1.888000e+09	4.695000e+
1	1	AAL	2013-12-31	4.975000e+09	-93000000.0	-2.723000e+09	67.0	-3.114000e+09	1.059200e+
2	2	AAL	2014-12-31	4.668000e+09	-160000000.0	-1.500000e+08	143.0	-5.311000e+09	1.513500e+
3	3	AAL	2015-12-31	5.102000e+09	352000000.0	-7.080000e+08	135.0	-6.151000e+09	1.159100e+
4	4	AAP	2012-12-29	2.409453e+09	-89482000.0	6.000000e+05	32.0	-2.711820e+08	5.202150e+
...	...	...	...	...	...	...	...	...	...
1776	1776	ZION	2015-12-31	0.000000e+00	0.0	-2.530000e+06	4.0	-1.573610e+08	0.000000e+
1777	1777	ZTS	2013-12-31	1.381000e+09	-99000000.0	9.000000e+06	54.0	-1.840000e+08	8.780000e+
1778	1778	ZTS	2014-12-31	1.071000e+09	69000000.0	-7.000000e+06	44.0	-1.800000e+08	9.580000e+
1779	1779	ZTS	2015-12-31	1.313000e+09	-58000000.0	-8.100000e+07	32.0	-2.240000e+08	1.012000e+
1780	1780	ZTS	2016-12-31	1.076000e+09	15000000.0	2.000000e+06	55.0	-2.160000e+08	1.024000e+

1781 rows × 79 columns

In [4]:
```python
#1.Select columns ‘Ticker Symbol’, ‘Total Revenue’, and ‘Earnings Before Tax’
df = fundamental[['Ticker Symbol', 'Total Revenue','Earnings Before Tax']]
```

In [5]:
```python
df
```

Out[5]:

	Ticker Symbol	Total Revenue	Earnings Before Tax
0	AAL	2.485500e+10	-2.445000e+09
1	AAL	2.674300e+10	-2.180000e+09
2	AAL	4.265000e+10	3.212000e+09
3	AAL	4.099000e+10	4.616000e+09
4	AAP	6.205003e+09	6.240740e+08
...	...	...	...
1776	ZION	2.210591e+09	4.518590e+08
1777	ZTS	4.561000e+09	6.900000e+08
1778	ZTS	4.785000e+09	8.200000e+08
1779	ZTS	4.765000e+09	5.450000e+08
1780	ZTS	4.888000e+09	1.228000e+09

1781 rows × 3 columns

In [6]:
```python
#2.Select only two companies google ( ‘Ticker Symbol’ ==‘GOOG’) and Apple (‘Ticker
Symbol’ ==‘AAPL’)
df2 = fundamental.loc[(fundamental['Ticker Symbol']=='GOOG') | (fundamental['Ticker
Symbol']=='AAPL' )]
```

In [7]:
```python
df2
```

Out[7]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
8	8	AAPL	2013-09-28	3.622300e+10	-1.949000e+09	1.156000e+09	30.0	-8.165000e+09	0.0
9	9	AAPL	2014-09-27	4.864900e+10	-6.452000e+09	9.800000e+08	35.0	-9.571000e+09	0.0
10	10	AAPL	2015-09-26	6.067100e+10	-3.124000e+09	1.285000e+09	45.0	-1.124700e+10	0.0
11	11	AAPL	2016-09-24	5.932100e+10	1.044000e+09	1.348000e+09	36.0	-1.273400e+10	0.0

4 rows × 79 columns

In [8]:
```python
#3.Find the Earning Per Share of ‘GOOG’ and “AAPL” = Earnings Before Tax’/‘Total Equity’
df2['Earning Per Share'] = df2['Earnings Before Tax']/df2['Total Equity']
```

```
/home/ranju/snap/jupyter/common/lib/python3.7/site-packages/pandas/core/frame.py:3607: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy
  self._set_item(key, value)
```

In [9]:
```python
df2
```

Out[9]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
8	8	AAPL	2013-09-28	3.622300e+10	-1.949000e+09	1.156000e+09	30.0	-8.165000e+09	0.0
9	9	AAPL	2014-09-27	4.864900e+10	-6.452000e+09	9.800000e+08	35.0	-9.571000e+09	0.0
10	10	AAPL	2015-09-26	6.067100e+10	-3.124000e+09	1.285000e+09	45.0	-1.124700e+10	0.0
11	11	AAPL	2016-09-24	5.932100e+10	1.044000e+09	1.348000e+09	36.0	-1.273400e+10	0.0

4 rows × 80 columns

In [10]:
```python
#5.Select companies with Negative earning (with loss)
df3 = fundamental.loc[fundamental['Earnings Before Tax']<0]
```

In [11]:
```python
df3
```

Out[11]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
0	0	AAL	2012-12-31	3.068000e+09	-222000000.0	-1.961000e+09	23.0	-1.888000e+09	4.695000e+
1	1	AAL	2013-12-31	4.975000e+09	-93000000.0	-2.723000e+09	67.0	-3.114000e+09	1.059200e+
20	20	ABT	2012-12-31	1.088900e+10	36000000.0	-1.260000e+09	22.0	-1.795000e+09	0.000000e+
43	43	ADSK	2016-01-31	5.221000e+08	-195500000.0	0.000000e+00	20.0	-7.240000e+07	0.000000e+
60	60	AIV	2012-12-31	3.443580e+08	30716000.0	3.074300e+07	14.0	-3.599260e+08	3.712684e+
...	...	...	...	...	...	...	...	...	...
1661	1661	VRTX	2015-12-31	3.807620e+08	-104847000.0	-6.715000e+06	59.0	-4.530200e+07	6.197500e+
1694	1694	WLTW	2012-12-31	1.900000e+07	-17000000.0	1.600000e+07	26.0	-1.350000e+08	1.125000e+
1705	1705	WMB	2015-12-31	1.822000e+09	39000000.0	1.290000e+08	9.0	-3.167000e+09	1.480700e+
1732	1732	XEC	2015-12-31	3.966360e+08	186699000.0	2.482200e+07	86.0	-1.049636e+09	2.762976e+
1764	1764	YHOO	2015-12-31	1.143349e+09	-39065000.0	-6.468200e+07	15.0	-5.541630e+08	8.807273e+

89 rows × 79 columns

In [12]:
```python
#4.
df4 = fundamental.loc[fundamental['Total Revenue']>1e9]
```

In [13]:
```python
df4
```

Out[13]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
0	0	AAL	2012-12-31	3.068000e+09	-222000000.0	-1.961000e+09	23.0	-1.888000e+09	4.695000e+
1	1	AAL	2013-12-31	4.975000e+09	-93000000.0	-2.723000e+09	67.0	-3.114000e+09	1.059200e+
2	2	AAL	2014-12-31	4.668000e+09	-160000000.0	-1.500000e+08	143.0	-5.311000e+09	1.513500e+
3	3	AAL	2015-12-31	5.102000e+09	352000000.0	-7.080000e+08	135.0	-6.151000e+09	1.159100e+
4	4	AAP	2012-12-29	2.409453e+09	-89482000.0	6.000000e+05	32.0	-2.711820e+08	5.202150e+
...	...	...	...	...	...	...	...	...	...
1776	1776	ZION	2015-12-31	0.000000e+00	0.0	-2.530000e+06	4.0	-1.573610e+08	0.000000e+
1777	1777	ZTS	2013-12-31	1.381000e+09	-99000000.0	9.000000e+06	54.0	-1.840000e+08	8.780000e+
1778	1778	ZTS	2014-12-31	1.071000e+09	69000000.0	-7.000000e+06	44.0	-1.800000e+08	9.580000e+
1779	1779	ZTS	2015-12-31	1.313000e+09	-58000000.0	-8.100000e+07	32.0	-2.240000e+08	1.012000e+
1780	1780	ZTS	2016-12-31	1.076000e+09	15000000.0	2.000000e+06	55.0	-2.160000e+08	1.024000e+

1743 rows × 79 columns

In [14]:
```python
df5 = fundamental.loc[fundamental['Total Revenue']<1e9]
```

In [15]:
```python
df5
```

Out[15]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
60	60	AIV	2012-12-31	344358000.0	30716000.0	30743000.0	14.0	-3.599260e+08	3.712684e+0
61	61	AIV	2013-12-31	330756000.0	4592000.0	20666000.0	21.0	-4.016290e+08	3.701339e+0
62	62	AIV	2014-12-31	320996000.0	9039000.0	6049000.0	25.0	-6.513650e+08	3.696143e+0
63	63	AIV	2015-12-31	355098000.0	619000.0	7336000.0	15.0	-5.366270e+08	4.064659e+0
378	378	COTY	2003-06-30	133000.0	926000.0	19000.0	2975.0	-7.400000e+04	1.672000e+0
379	379	COTY	2004-06-30	263000.0	275000.0	22000.0	79.0	-5.000000e+04	1.024700e+0
380	380	COTY	2006-02-28	13078000.0	1351000.0	3138000.0	552.0	-1.361000e+06	5.726200e+0
381	381	COTY	2007-02-28	15569000.0	-2979000.0	-54669000.0	134.0	-8.960000e+05	7.482800e+0
572	572	ESS	2012-12-31	109910000.0	0.0	30771000.0	7.0	-5.149820e+08	2.204778e+0
573	573	ESS	2013-12-31	117810000.0	0.0	12836000.0	8.0	-4.707390e+08	2.345763e+0
574	574	ESS	2014-12-31	223383000.0	0.0	57582000.0	2.0	-7.006060e+08	6.651165e+0
604	604	EXR	2012-12-31	171889000.0	7439000.0	6666000.0	14.0	-6.088530e+08	1.740037e+0
605	605	EXR	2013-12-31	180191000.0	1277000.0	-2594000.0	18.0	-3.629490e+08	1.973159e+0
606	606	EXR	2014-12-31	182580000.0	71000.0	-5552000.0	21.0	-5.318960e+08	1.995484e+0
607	607	EXR	2015-12-31	199884000.0	-1436000.0	9812000.0	19.0	-3.842080e+08	2.431754e+0
668	668	FRT	2013-12-31	208655000.0	-6321000.0	-7877000.0	11.0	-3.774180e+08	2.062708e+0
669	669	FRT	2014-12-31	206305000.0	-3063000.0	-6050000.0	10.0	-3.701120e+08	2.281223e+0
670	670	FRT	2015-12-31	212870000.0	-9200000.0	9407000.0	13.0	-4.368460e+08	2.381867e+0
671	671	FRT	2016-12-31	273196000.0	1868000.0	32832000.0	13.0	-5.802380e+08	2.718325e+0
899	899	KIM	2012-12-31	208399000.0	2940000.0	6876000.0	6.0	-5.605940e+08	5.651170e+0
900	900	KIM	2013-12-31	228786000.0	7213000.0	23778000.0	5.0	-1.314340e+08	5.689258e+0
901	901	KIM	2014-12-31	240652000.0	-8060000.0	-4060000.0	9.0	-2.022750e+08	5.732021e+0
1011	1011	MAA	2012-12-31	99305000.0	0.0	-37370000.0	12.0	-3.859920e+08	1.542999e+0
1012	1012	MAA	2013-12-31	221335000.0	0.0	-103000.0	4.0	-1.922410e+08	3.599549e+0
1013	1013	MAA	2014-12-31	227439000.0	0.0	40707000.0	5.0	-3.799620e+08	3.619270e+0
1015	1015	MAC	2012-12-31	815982000.0	-3735000.0	222167000.0	11.0	-1.204061e+09	3.715895e+0
1200	1200	O	2012-12-31	94171000.0	573000.0	0.0	7.0	0.000000e+00	0.000000e+0
1201	1201	O	2013-12-31	143963000.0	-2116000.0	0.0	5.0	-1.429483e+09	0.000000e+0
1202	1202	O	2014-12-31	166962000.0	-3064000.0	39205000.0	5.0	-1.228243e+09	0.000000e+0
1538	1538	TRIP	2012-12-31	90629000.0	-32000000.0	-3000000.0	27.0	-2.900000e+07	5.312560e+0
1539	1539	TRIP	2013-12-31	101000000.0	-12000000.0	0.0	24.0	-5.500000e+07	6.080000e+0
1582	1582	UDR	2012-12-31	207495000.0	0.0	3524000.0	7.0	-5.000150e+08	4.098882e+0
1583	1583	UDR	2013-12-31	226715000.0	0.0	4619000.0	2.0	-4.342790e+08	4.109765e+0
1584	1584	UDR	2014-12-31	210935000.0	0.0	155430000.0	6.0	-5.769820e+08	4.223747e+0
1585	1585	UDR	2015-12-31	209672000.0	0.0	253228000.0	12.0	-4.613740e+08	4.447816e+0
1654	1654	VRSN	2012-12-31	130391000.0	3327000.0	5564000.0	3433.0	-5.302300e+07	1.989129e+1
1655	1655	VRSN	2013-12-31	809909000.0	-2500000.0	3300000.0	129.0	-6.559400e+07	1.893530e+1
1660	1660	VRTX	2014-12-31	280870000.0	7428000.0	30400000.0	69.0	-5.120100e+07	5.777154e+0

38 rows × 79 columns

In [16]:
```python
df6 = df4.loc[df4['Total Revenue']<1e10]
```

In [17]:
```python
df6
```

Out[17]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
4	4	AAP	2012-12-29	2.409453e+09	-89482000.0	600000.0	32.0	-271182000.0	5.202150e+08
5	5	AAP	2013-12-28	2.609239e+09	-32428000.0	2698000.0	26.0	-195757000.0	5.312930e+08
6	6	AAP	2015-01-03	3.616038e+09	-48209000.0	3092000.0	25.0	-228446000.0	5.629450e+08
7	7	AAP	2016-01-02	3.757085e+09	-21476000.0	-7484000.0	19.0	-234747000.0	6.033320e+08
24	24	ADBE	2013-11-29	7.292570e+08	33649000.0	926000.0	4.0	-188358000.0	3.392696e+09
...	...	...	...	...	...	...	...	...	...
1776	1776	ZION	2015-12-31	0.000000e+00	0.0	-2530000.0	4.0	-157361000.0	0.000000e+00
1777	1777	ZTS	2013-12-31	1.381000e+09	-99000000.0	9000000.0	54.0	-184000000.0	8.780000e+08
1778	1778	ZTS	2014-12-31	1.071000e+09	69000000.0	-7000000.0	44.0	-180000000.0	9.580000e+08
1779	1779	ZTS	2015-12-31	1.313000e+09	-58000000.0	-81000000.0	32.0	-224000000.0	1.012000e+09
1780	1780	ZTS	2016-12-31	1.076000e+09	15000000.0	2000000.0	55.0	-216000000.0	1.024000e+09

970 rows × 79 columns

In [18]:
```python
#top 10 companies on the basis of total revenue
df7 = fundamental.sort_values('Total Revenue')['Ticker Symbol'].head(10)
```

In [19]:
```python
df7
```

Out[19]:
```
379     COTY
378     COTY
380     COTY
381     COTY
604      EXR
1011     MAA
1200       O
605      EXR
572      ESS
1660    VRTX
Name: Ticker Symbol, dtype: object
```

In [20]:
```python
#Dropp and remove null values if found
fundamental.dropna()
```

Out[20]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
0	0	AAL	2012-12-31	3.068000e+09	-222000000.0	-1.961000e+09	23.0	-1.888000e+09	4.695000e+
1	1	AAL	2013-12-31	4.975000e+09	-93000000.0	-2.723000e+09	67.0	-3.114000e+09	1.059200e+
2	2	AAL	2014-12-31	4.668000e+09	-160000000.0	-1.500000e+08	143.0	-5.311000e+09	1.513500e+
3	3	AAL	2015-12-31	5.102000e+09	352000000.0	-7.080000e+08	135.0	-6.151000e+09	1.159100e+
4	4	AAP	2012-12-29	2.409453e+09	-89482000.0	6.000000e+05	32.0	-2.711820e+08	5.202150e+
...	...	...	...	...	...	...	...	...	...
1771	1771	ZBH	2014-12-31	2.255000e+08	-40400000.0	-3.480000e+07	11.0	-3.423000e+08	4.330700e+
1772	1772	ZBH	2015-12-31	4.320000e+08	-56100000.0	-2.750000e+07	1.0	-4.341000e+08	8.195300e+
1777	1777	ZTS	2013-12-31	1.381000e+09	-99000000.0	9.000000e+06	54.0	-1.840000e+08	8.780000e+
1778	1778	ZTS	2014-12-31	1.071000e+09	69000000.0	-7.000000e+06	44.0	-1.800000e+08	9.580000e+
1779	1779	ZTS	2015-12-31	1.313000e+09	-58000000.0	-8.100000e+07	32.0	-2.240000e+08	1.012000e+

1299 rows × 79 columns

In [21]:
```python
fundamental.groupby(by = 'Ticker Symbol')
```

Out[21]: `<pandas.core.groupby.generic.DataFrameGroupBy object at 0x7fd5702b6ef0>`

In [22]:
```python
fundamental.sort_values('Period Ending', ascending = False)
```

Out[22]:

	Unnamed: 0	Ticker Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
838	838	ILMN	2017-01-01	4.806810e+08	3239000.0	7327000.0	21.0	-259891000.0	2.733394e+
1780	1780	ZTS	2016-12-31	1.076000e+09	15000000.0	2000000.0	55.0	-216000000.0	1.024000e+
127	127	AN	2016-12-31	2.612500e+09	-99300000.0	4800000.0	19.0	-244500000.0	1.820000e+
866	866	ITW	2016-12-31	2.108000e+09	-132000000.0	81000000.0	48.0	-273000000.0	1.188000e+
862	862	ISRG	2016-12-31	3.559000e+08	-35900000.0	35600000.0	13.0	-53900000.0	4.211800e+
...	...	...	...	...	...	...	...	...	...
206	206	BBY	2012-03-03	7.876000e+09	41000000.0	77000000.0	33.0	-766000000.0	0.000000e+
381	381	COTY	2007-02-28	1.556900e+07	-2979000.0	-54669000.0	134.0	-896000.0	7.482800e+
380	380	COTY	2006-02-28	1.307800e+07	1351000.0	3138000.0	552.0	-1361000.0	5.726200e+
379	379	COTY	2004-06-30	2.630000e+05	275000.0	22000.0	79.0	-50000.0	1.024700e+
378	378	COTY	2003-06-30	1.330000e+05	926000.0	19000.0	2975.0	-74000.0	1.672000e+

1781 rows × 79 columns

In [23]:
```python
fundamental.rename(columns = {'Ticker Symbol':'Symbol'})
```

Out[23]:

	Unnamed: 0	Symbol	Period Ending	Accounts Payable	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus
0	0	AAL	2012-12-31	3.068000e+09	-222000000.0	-1.961000e+09	23.0	-1.888000e+09	4.695000e+
1	1	AAL	2013-12-31	4.975000e+09	-93000000.0	-2.723000e+09	67.0	-3.114000e+09	1.059200e+
2	2	AAL	2014-12-31	4.668000e+09	-160000000.0	-1.500000e+08	143.0	-5.311000e+09	1.513500e+
3	3	AAL	2015-12-31	5.102000e+09	352000000.0	-7.080000e+08	135.0	-6.151000e+09	1.159100e+
4	4	AAP	2012-12-29	2.409453e+09	-89482000.0	6.000000e+05	32.0	-2.711820e+08	5.202150e+
...	...	...	...	...	...	...	...	...	...
1776	1776	ZION	2015-12-31	0.000000e+00	0.0	-2.530000e+06	4.0	-1.573610e+08	0.000000e+
1777	1777	ZTS	2013-12-31	1.381000e+09	-99000000.0	9.000000e+06	54.0	-1.840000e+08	8.780000e+
1778	1778	ZTS	2014-12-31	1.071000e+09	69000000.0	-7.000000e+06	44.0	-1.800000e+08	9.580000e+
1779	1779	ZTS	2015-12-31	1.313000e+09	-58000000.0	-8.100000e+07	32.0	-2.240000e+08	1.012000e+
1780	1780	ZTS	2016-12-31	1.076000e+09	15000000.0	2.000000e+06	55.0	-2.160000e+08	1.024000e+

1781 rows × 79 columns

In [24]:
```python
fundamental.drop(columns = ['Ticker Symbol','Accounts Payable'])
```

Out[24]:

	Unnamed: 0	Period Ending	Accounts Receivable	Add'l income/expense items	After Tax ROE	Capital Expenditures	Capital Surplus	Cash Ratio	Cash and Cash Equivalents
0	0	2012-12-31	-222000000.0	-1.961000e+09	23.0	-1.888000e+09	4.695000e+09	53.0	1.330000e+09
1	1	2013-12-31	-93000000.0	-2.723000e+09	67.0	-3.114000e+09	1.059200e+10	75.0	2.175000e+09
2	2	2014-12-31	-160000000.0	-1.500000e+08	143.0	-5.311000e+09	1.513500e+10	60.0	1.768000e+09
3	3	2015-12-31	352000000.0	-7.080000e+08	135.0	-6.151000e+09	1.159100e+10	51.0	1.085000e+09
4	4	2012-12-29	-89482000.0	6.000000e+05	32.0	-2.711820e+08	5.202150e+08	23.0	5.981110e+08
...	...	...	...	...	...	...	...	...	...
1776	1776	2015-12-31	0.0	-2.530000e+06	4.0	-1.573610e+08	0.000000e+00	NaN	1.576313e+10
1777	1777	2013-12-31	-99000000.0	9.000000e+06	54.0	-1.840000e+08	8.780000e+08	43.0	6.100000e+08
1778	1778	2014-12-31	69000000.0	-7.000000e+06	44.0	-1.800000e+08	9.580000e+08	81.0	8.820000e+08
1779	1779	2015-12-31	-58000000.0	-8.100000e+07	32.0	-2.240000e+08	1.012000e+09	65.0	1.154000e+09
1780	1780	2016-12-31	15000000.0	2.000000e+06	55.0	-2.160000e+08	1.024000e+09	65.0	7.270000e+08

1781 rows × 77 columns

In [25]:
```python
fundamental.filter(regex = '^Capital')
```

Out[25]:

	Capital Expenditures	Capital Surplus
0	-1.888000e+09	4.695000e+09
1	-3.114000e+09	1.059200e+10
2	-5.311000e+09	1.513500e+10
3	-6.151000e+09	1.159100e+10
4	-2.711820e+08	5.202150e+08
...	...	...
1776	-1.573610e+08	0.000000e+00
1777	-1.840000e+08	8.780000e+08
1778	-1.800000e+08	9.580000e+08
1779	-2.240000e+08	1.012000e+09
1780	-2.160000e+08	1.024000e+09

1781 rows × 2 columns

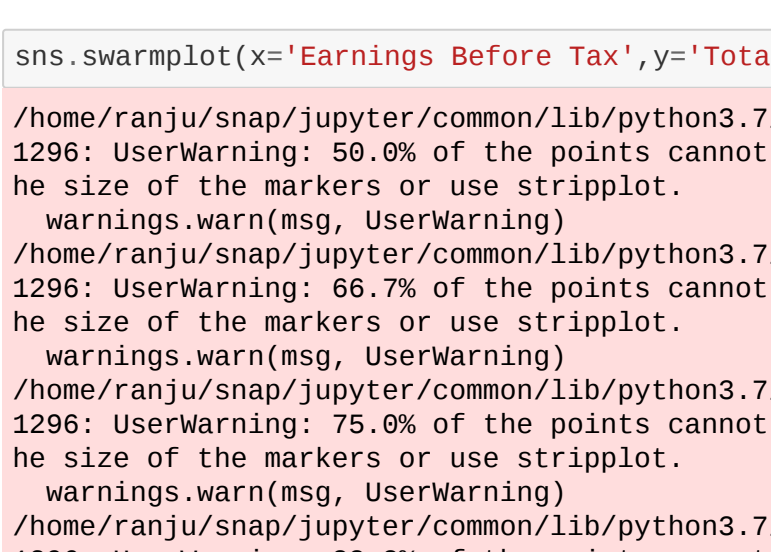
In [ ]:

In [ ]:

In [ ]:

In [29]:
```python
sns.boxplot(data=df)
```

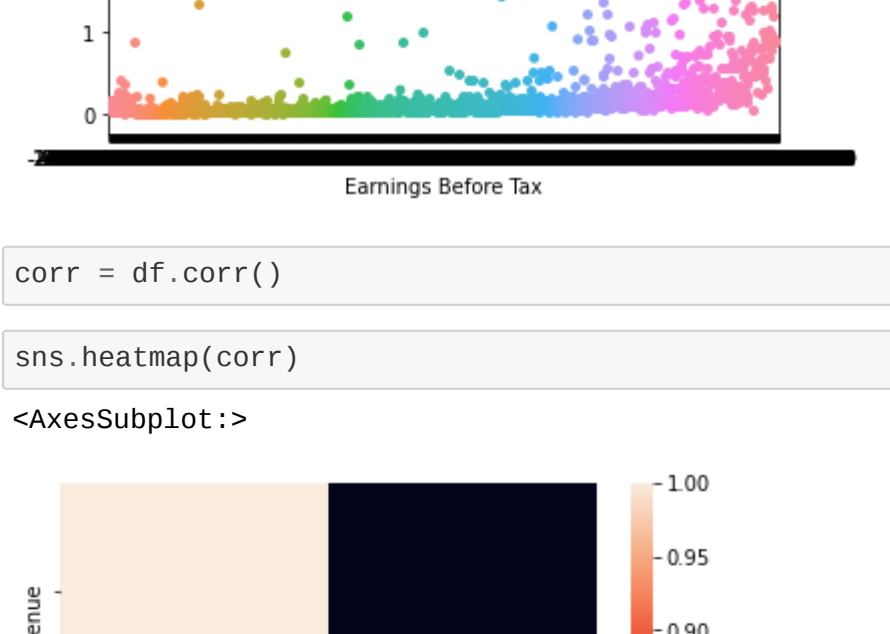
Out[29]: `<AxesSubplot:>`



In [30]:
```python
sns.swarmplot(x='Earnings Before Tax',y='Total Revenue',data = df)
```

```
/home/ranju/snap/jupyter/common/lib/python3.7/site-packages/seaborn/categorical.py:1296: UserWarning: 50.0% of the points cannot be placed; you may want to decrease the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
/home/ranju/snap/jupyter/common/lib/python3.7/site-packages/seaborn/categorical.py:1296: UserWarning: 66.7% of the points cannot be placed; you may want to decrease the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
/home/ranju/snap/jupyter/common/lib/python3.7/site-packages/seaborn/categorical.py:1296: UserWarning: 75.0% of the points cannot be placed; you may want to decrease the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
/home/ranju/snap/jupyter/common/lib/python3.7/site-packages/seaborn/categorical.py:1296: UserWarning: 33.3% of the points cannot be placed; you may want to decrease the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
```

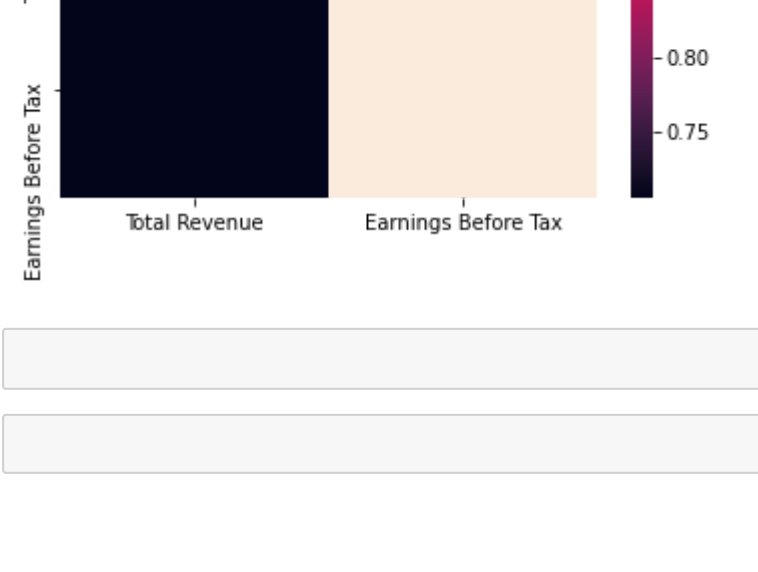
Out[30]: `<AxesSubplot:xlabel='Earnings Before Tax', ylabel='Total Revenue'>`



In [31]:
```python
corr = df.corr()
```

In [33]:
```python
sns.heatmap(corr)
```

Out[33]: `<AxesSubplot:>`



In [ ]:

In [ ]: