This project is on FDIC failed banks.

In [26]:
```
#I obtained this information from data mining the failed banks on the fdic website..
```

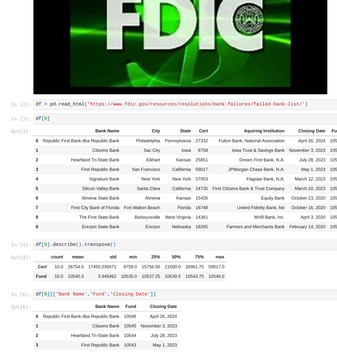
In [2]:
```
import numpy as np
import pandas as pd
import seaborn as sns
import cufflinks as cf
import matplotlib.pyplot as plt
%matplotlib inline

from datetime import date
now = date.today()
now

datetime.date(2024, 8, 26)

from IPython import display
display.Image('/home/harlohtech77/pictures/fdic1.jpeg', height=400, width=800)
```

Out[2]:



In [3]:
```
df = pd.read_html('https://www.fdic.gov/resources/resolutions/bank-failures/failed-bank-list/')
```

In [4]:
```
df[0]
```

Out[4]:

	Bank Name	City	State	Cert	Aquiring Institution	Closing Date	Fund
0	Republic First Bank dba Republic Bank	Philadelphia	Pennsylvania	27332	Fulton Bank, National Association	April 26, 2024	10546
1	Citizens Bank	Sac City	Iowa	8758	Iowa Trust & Savings Bank	November 3, 2023	10545
2	Heartland Tri-State Bank	Elkhart	Kansas	25851	Dream First Bank, N.A.	July 28, 2023	10544
3	First Republic Bank	San Francisco	California	59017	JPMorgan Chase Bank, N.A.	May 1, 2023	10543
4	Signature Bank	New York	New York	57053	Flagstar Bank, N.A.	March 12, 2023	10540
5	Silicon Valley Bank	Santa Clara	California	24735	First Citizens Bank & Trust Company	March 10, 2023	10539
6	Almena State Bank	Almena	Kansas	15426	Equity Bank	October 23, 2020	10538
7	First City Bank of Florida	Fort Walton Beach	Florida	16748	United Fidelity Bank, fsb	October 16, 2020	10537
8	The First State Bank	Barboursville	West Virginia	14361	MVB Bank, Inc.	April 3, 2020	10536
9	Ericson State Bank	Ericson	Nebraska	18265	Farmers and Merchants Bank	February 14, 2020	10535

In [5]:
```
df[0].describe().transpose()
```

Out[5]:

	count	mean	std	min	25%	50%	75%	max
Cert	10.0	26754.6	17455.039471	8758.0	15756.50	21500.0	26961.75	59017.0
Fund	10.0	10540.3	3.945462	10535.0	10537.25	10539.5	10543.75	10546.0

In [6]:
```
df[0][['Bank Name','Fund','Closing Date']]
```

Out[6]:

	Bank Name	Fund	Closing Date
0	Republic First Bank dba Republic Bank	10546	April 26, 2024
1	Citizens Bank	10545	November 3, 2023
2	Heartland Tri-State Bank	10544	July 28, 2023
3	First Republic Bank	10543	May 1, 2023
4	Signature Bank	10540	March 12, 2023
5	Silicon Valley Bank	10539	March 10, 2023
6	Almena State Bank	10538	October 23, 2020
7	First City Bank of Florida	10537	October 16, 2020
8	The First State Bank	10536	April 3, 2020
9	Ericson State Bank	10535	February 14, 2020

In [30]:
```
#10 banks that have closed
```

In [31]:
```
df[0]['Fund'].count()
```

Out[32]:
```
10
```

In [33]:
```
#total amount of funds from all banks 10540
```

In [8]:
```
df[0]['Fund'].sum()
```

Out[8]:
```
105403
```

In [9]:
```
df[0]['Closing Date'].head()
```

Out[9]:
```
0    April 26, 2024
1    November 3, 2023
2    July 28, 2023
3      May 1, 2023
4    March 12, 2023
Name: Closing Date, dtype: object
```

In [34]:
```
df[0]['Closing Date'].sort_values()
```

Out[34]:
```
0     April 26, 2024
8     April 3, 2020
9    February 14, 2020
2     July 28, 2023
5     March 10, 2023
4     March 12, 2023
3       May 1, 2023
1    November 3, 2023
7    October 16, 2020
6    October 23, 2020
Name: Closing Date, dtype: object
```

In [10]:
```
#first date of the first bank failure was on February 14, 2020 per this data
#last date of the last bank failure was on April 26, 2024 per this data
```

In [11]:
```
df[0]['Closing Date'].unique()
```

Out[11]:
```
array(['April 26, 2024', 'November 3, 2023', 'July 28, 2023',
       'May 1, 2023', 'March 12, 2023', 'March 10, 2023',
       'October 23, 2020', 'October 16, 2020', 'April 3, 2020',
       'February 14, 2020'], dtype=object)
```

In [15]:
```
df[0]['Closing Date']
```

Out[15]:
```
0     April 26, 2024
1    November 3, 2023
2       July 28, 2023
3         May 1, 2023
4      March 12, 2023
5      March 10, 2023
6    October 23, 2020
7    October 16, 2020
8       April 3, 2020
9    February 14, 2020
Name: Closing Date, dtype: object
```

In [16]:
```
#Even banks that failed per this data - 10,000.00 == Fund
```

In [19]:
```
df[0][df[0]['Fund']==10000]['Bank Name']
```

Out[19]:
```
0    Republic First Bank dba Republic Bank
1                           Citizens Bank
2                  Heartland Tri-State Bank
3                    First Republic Bank
4                       Signature Bank
5                    Silicon Valley Bank
6                       Almena State Bank
7                First City Bank of Florida
8                     The First State Bank
9                     Ericson State Bank
Name: Bank Name, dtype: object
```

In [23]:
```
df[0]
```

Out[23]:

	Bank Name	City	State	Cert	Aquiring Institution	Closing Date	Fund
0	Republic First Bank dba Republic Bank	Philadelphia	Pennsylvania	27332	Fulton Bank, National Association	April 26, 2024	10546
1	Citizens Bank	Sac City	Iowa	8758	Iowa Trust & Savings Bank	November 3, 2023	10545
2	Heartland Tri-State Bank	Elkhart	Kansas	25851	Dream First Bank, N.A.	July 28, 2023	10544
3	First Republic Bank	San Francisco	California	59017	JPMorgan Chase Bank, N.A.	May 1, 2023	10543
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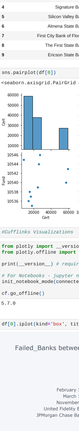
7	First City Bank of Florida	Fort Walton Beach	Florida	16748	United Fidelity Bank, fsb	October 16, 2020	10537
8	The First State Bank	Barboursville	West Virginia	14361	MVB Bank, Inc.	April 3, 2020	10536
9	Ericson State Bank	Ericson	Nebraska	18265	Farmers and Merchants Bank	February 14, 2020	10535

In [22]:
```
sns.pairplot(df[0])
```

Out[22]:
```
<seaborn.axisgrid.PairGrid at 0x7f1668a35670>
```



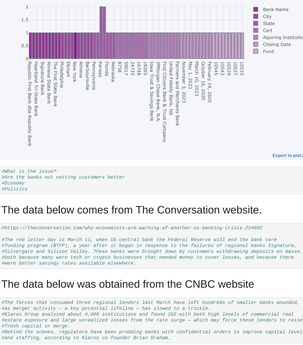
In [24]:
```
#Cufflinks Visualizations
```

In [25]:
```
from plotly import __version__
from plotly.offline import download_plotlyjs, init_notebook_mode, plot, iplot

print(__version__) # requires version >= 1.9.0

# For Notebooks - jupyter notebook
init_notebook_mode(connected=True)

cf.go_offline()
```

```
5.7.0
```

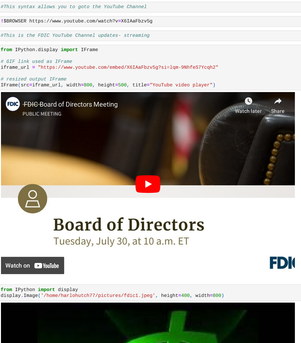
In [27]:
```
df[0].iplot(kind='box', title='Failed_Banks between February 14, 2000 to April 26, 2024')
```

Out[27]:



In [28]:
```
df[0].iplot(kind='hist', bins=35, color='purple', title='Failed_Banks between February 14, 2000 to April 26, 20
```

Out[28]:



In [122]:
```
#What is the issue?
#Are the banks not vetting customers better
#Economy
#Politics
```

The data below comes from The Conversation website.

In [125]:
```
#https://theconversation.com/why-economists-are-warning-of-another-us-banking-crisis-224092

#The red letter day is March 11, when US central bank the Federal Reserve will end the bank term
#funding program (BTFP), a year after it began in response to the failures of regional banks Signature,
#Silicon Valley and Signature Bank. Many businesses brought down by customers withdrawing deposits en masse,
#both because many banks lack or cripple businesses that needed money to cover losses, and because there
#were better savings rates available elsewhere.
```

The data below was obtained from the CNBC website

In [ ]:
```
#The forces that consumed three regional lenders last March have left hundreds of smaller banks wounded,
#as merger activity -- a key potential lifeline -- has slowed to a trickle.
#Warns Group analyzed about 4,600 institutions and found 282 with both high levels of commercial real
#estate concentrations and unrealized losses from the rate surge -- which may force these lenders to raise
#fresh capital or merge.
#Behind the scenes, regulators have been prodding banks with confidential orders to improve capital levels
#and staffing, according to Klarex co-founder Brian Graham.
```

FDIC live video via YouTube Channel

In [85]:
```
#This syntax allows you to goto the YouTube Channel
```

In [127]:
```
!BROWSER https://www.youtube.com/watch?v=XGIaaFbzvSg
```

In [128]:
```
#This is the FDIC YouTube Channel updates--streaming
```

In [129]:
```
from IPython.display import IFrame

# GIF link used as IFrame
iframe_url = "https://www.youtube.com/embed/X41AaRpzvSg?si=1qe-9NhfeS7YcqhO"

# resized output IFrame
IFrame(src=iframe_url, width=800, height=500, title="YouTube video player")
```

Out[129]:

In [122]:
```
from IPython import display
display.Image('/home/harlohtech77/pictures/fdic1.jpeg', height=400, width=800)
```

Out[122]:

In [ ]:
```

```