Analyze US Economic Data and Build a Dashboard

March 18, 2020

[1]:
```
import pandas as pd
from bokeh.plotting import figure, output_file, show,output_notebook
output_notebook()
```

[2]:
```
def make_dashboard(x, gdp_change, unemployment, title, file_name):
    output_file(file_name)
    p = figure(title=title, x_axis_label='year', y_axis_label='%')
    p.line(x.squeeze(), gdp_change.squeeze(), color="firebrick", line_width=4,␣
 ↪legend="% GDP change")
    p.line(x.squeeze(), unemployment.squeeze(), line_width=4, legend="%␣
 ↪unemployed")
    show(p)
```

[3]:
```
links={'GDP':'https://s3-api.us-geo.objectstorage.softlayer.net/cf-courses-data/
 ↪CognitiveClass/PY0101EN/projects/coursera_project/clean_gdp.csv',\
      'unemployment':'https://s3-api.us-geo.objectstorage.softlayer.net/
 ↪cf-courses-data/CognitiveClass/PY0101EN/projects/coursera_project/
 ↪clean_unemployment.csv'}
```

[5]:
```
GDP = links.get('GDP',"")
GDP_data = pd.read_csv(GDP)
GDP_data.head()
```

[5]:

	date	level-current	level-chained	change-current	change-chained
0	1948	274.8	2020.0	-0.7	-0.6
1	1949	272.8	2008.9	10.0	8.7
2	1950	300.2	2184.0	15.7	8.0
3	1951	347.3	2360.0	5.9	4.1
4	1952	367.7	2456.1	6.0	4.7

[7]:
```
Unemploy = links.get('unemployment',"")
Unemploy_data = pd.read_csv(Unemploy)
Unemploy_data.head()
```

[7]:

	date	unemployment
0	1948	3.750000
1	1949	6.050000
2	1950	5.208333
3	1951	3.283333

```
4  1952      3.025000
```

[8]:
```
x = GDP_data['date']
```

[9]:
```
gdp_change = GDP_data['change-current']
```

[10]:
```
unemployment = Unemploy_data['unemployment']
```

[11]:
```
title = "Changes in US Economic"
```

[12]:
```
file_name = "index.html"
```

[13]:
```
make_dashboard(x=x, gdp_change=gdp_change, unemployment=unemployment,␣
↪title=title, file_name=file_name)
```