```python
import pandas as pd


df1 = pd.DataFrame({"Ticker":["XOM","GE","WMT","JNJ","BAC","AIG","TOT"],
                    "Portfolio weight":[1233,2345,3245,6532,4234,3879,4532],
                    "Annualizied volatility":[2.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Beta against SPY":[4.3,4.4,2.1,2.3,4,2.1,3.2],
                    "Beta against IWM":[3.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Beta against DIA":[5.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Average Weekly Drawdown":[1.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Maximum Weekly Drawdown":[1.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Total Return":[1233,2345,3245,6532,4234,3879,4532],
                    "Annualized Total Return":[1233,2345,3245,6532,4234,3879,4532]})


print(df1)
```

```
  Ticker  Portfolio weight  Annualizied volatility  Beta against SPY  \
0    XOM              1233                     2.3               4.3
1     GE              2345                     3.4               4.4
2    WMT              3245                     2.1               2.1
3    JNJ              6532                     2.3               2.3
4    BAC              4234                     4.0               4.0
5    AIG              3879                     2.1               2.1
6    TOT              4532                     3.2               3.2

   Beta against IWM  Beta against DIA  Average Weekly Drawdown  \
0               3.3               5.3                      1.3
1               3.4               3.4                      3.4
2               2.1               2.1                      2.1
3               2.3               2.3                      2.3
4               4.0               4.0                      4.0
5               2.1               2.1                      2.1
6               3.2               3.2                      3.2

   Maximum Weekly Drawdown  Total Return  Annualized Total Return
0                      1.3          1233                     1233
1                      3.4          2345                     2345
2                      2.1          3245                     3245
3                      2.3          6532                     6532
4                      4.0          4234                     4234
5                      2.1          3879                     3879
6                      3.2          4532                     4532
```

```python
df2 = pd.DataFrame({"ETF Ticker":["XOM-T","GE-T","WMT-T","JNJ-T","BAC-T","AIG-T","TOT-T"],
                    "Correlation against ETF":[1.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Covariance of Portfolio against ETF":[2.3,3.4,2.1,2.3,4,2.1,3.2],
                    "Tracking Errors (using trailing 10-years)":[4.3,4.4,2.1,2.3,4,2.1,3.2
                    "Sharpe Ratio (using current risk-free rate)":[3.3,3.4,2.1,2.3,4,2.1,3
                    "Annualized Volatility (252 days) Spread (Portfolio Volatility – ETF \
```

```python
print(df2)
```

```
  ETF Ticker  Correlation against ETF  Covariance of Portfolio against ETF  \
0      XOM-T                      1.3                                  2.3
1       GE-T                      3.4                                  3.4
```

```
2        WMT-T                      2.1                              2.1
3        JNJ-T                      2.3                              2.3
4        BAC-T                      4.0                              4.0
5        AIG-T                      2.1                              2.1
6        TOT-T                      3.2                              3.2

   Tracking Errors (using trailing 10-years)  \
0                                         4.3
1                                         4.4
2                                         2.1
3                                         2.3
4                                         4.0
5                                         2.1
6                                         3.2

   Sharpe Ratio (using current risk-free rate)  \
0                                           3.3
1                                           3.4
2                                           2.1
3                                           2.3
4                                           4.0
5                                           2.1
6                                           3.2

   Annualized Volatility (252 days) Spread (Portfolio Volatility – ETF Volatility)
0                                               5.3
1                                               3.4
2                                               2.1
3                                               2.3
4                                               4.0
5                                               2.1
6                                               3.2
```

```
result = pd.concat([df1,df2],axis=1)
result.head()
```

```
#correlation matrix
corr = result.corr()

corr.style.background_gradient(cmap='coolwarm')
```

	Portfolio weight	Annualizied volatility	Beta against SPY	Beta against IWM	Beta against DIA	Average Weekly Drawdown	Maximu Weekl Drawdor
Portfolio weight	1.000000	0.022688	-0.582196	-0.304381	-0.608457	0.280210	0.2802
Annualizied volatility	0.022688	1.000000	0.659345	0.873701	0.377895	0.921199	0.92119
Beta against SPY	-0.582196	0.659345	1.000000	0.903148	0.871665	0.345779	0.3457

```
import matplotlib.pyplot as plt
from matplotlib.backends.backend_pdf import PdfPages
fig, ax =plt.subplots(figsize=(12,4))
ax.axis('tight')
ax.axis('off')
the_table = ax.table(cellText=df1.values,colLabels=df1.columns,loc='center')



pp = PdfPages("table1.pdf")
pp.savefig(fig, bbox_inches='tight')
pp.close()
```


| against | 0.022688 | 1.000000 | 0.659345 | 0.873701 | 0.377895 | 0.921199 | 0.9211 |

```
fig, ax =plt.subplots(figsize=(12,4))
ax.axis('tight')
ax.axis('off')
the_table = ax.table(cellText=df2.values,colLabels=df2.columns,loc='center')


pp = PdfPages("table2.pdf")
pp.savefig(fig, bbox_inches='tight')
pp.close()
```

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