In [63]:
```
!pip install mplcyberpunk
```

```
Requirement already satisfied: mplcyberpunk in c:\users\vinicius\anaconda3\lib\si
te-packages (0.7.1)
Requirement already satisfied: matplotlib in c:\users\vinicius\anaconda3\lib\site
-packages (from mplcyberpunk) (3.8.0)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\vinicius\anaconda3\li
b\site-packages (from matplotlib->mplcyberpunk) (1.2.0)
Requirement already satisfied: cycler>=0.10 in c:\users\vinicius\anaconda3\lib\si
te-packages (from matplotlib->mplcyberpunk) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\vinicius\anaconda3\l
ib\site-packages (from matplotlib->mplcyberpunk) (4.25.0)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\vinicius\anaconda3\l
ib\site-packages (from matplotlib->mplcyberpunk) (1.4.4)
Requirement already satisfied: numpy<2,>=1.21 in c:\users\vinicius\anaconda3\lib
\site-packages (from matplotlib->mplcyberpunk) (1.26.4)
Requirement already satisfied: packaging>=20.0 in c:\users\vinicius\anaconda3\lib
\site-packages (from matplotlib->mplcyberpunk) (23.1)
Requirement already satisfied: pillow>=6.2.0 in c:\users\vinicius\anaconda3\lib\s
ite-packages (from matplotlib->mplcyberpunk) (10.2.0)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\vinicius\anaconda3\li
b\site-packages (from matplotlib->mplcyberpunk) (3.0.9)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\vinicius\anaconda
3\lib\site-packages (from matplotlib->mplcyberpunk) (2.8.2)
Requirement already satisfied: six>=1.5 in c:\users\vinicius\anaconda3\lib\site-p
ackages (from python-dateutil>=2.7->matplotlib->mplcyberpunk) (1.16.0)
```

In [64]:
```
!pip install yfinance==0.2.40
```

```
Requirement already satisfied: yfinance==0.2.40 in c:\users\vinicius\anaconda3\li
b\site-packages (0.2.40)
Requirement already satisfied: pandas>=1.3.0 in c:\users\vinicius\anaconda3\lib\s
ite-packages (from yfinance==0.2.40) (2.1.4)
Requirement already satisfied: numpy>=1.16.5 in c:\users\vinicius\anaconda3\lib\s
ite-packages (from yfinance==0.2.40) (1.26.4)
Requirement already satisfied: requests>=2.31 in c:\users\vinicius\anaconda3\lib
\site-packages (from yfinance==0.2.40) (2.31.0)
Requirement already satisfied: multitasking>=0.0.7 in c:\users\vinicius\anaconda3
\lib\site-packages (from yfinance==0.2.40) (0.0.11)
Requirement already satisfied: lxml>=4.9.1 in c:\users\vinicius\anaconda3\lib\sit
e-packages (from yfinance==0.2.40) (4.9.3)
Requirement already satisfied: platformdirs>=2.0.0 in c:\users\vinicius\anaconda3
\lib\site-packages (from yfinance==0.2.40) (3.10.0)
Requirement already satisfied: pytz>=2022.5 in c:\users\vinicius\anaconda3\lib\si
te-packages (from yfinance==0.2.40) (2023.3.post1)
Requirement already satisfied: frozendict>=2.3.4 in c:\users\vinicius\anaconda3\l
ib\site-packages (from yfinance==0.2.40) (2.4.4)
Requirement already satisfied: peewee>=3.16.2 in c:\users\vinicius\anaconda3\lib
\site-packages (from yfinance==0.2.40) (3.17.6)
Requirement already satisfied: beautifulsoup4>=4.11.1 in c:\users\vinicius\anacon
da3\lib\site-packages (from yfinance==0.2.40) (4.12.2)
Requirement already satisfied: html5lib>=1.1 in c:\users\vinicius\anaconda3\lib\s
ite-packages (from yfinance==0.2.40) (1.1)
Requirement already satisfied: soupsieve>1.2 in c:\users\vinicius\anaconda3\lib\s
ite-packages (from beautifulsoup4>=4.11.1->yfinance==0.2.40) (2.5)
Requirement already satisfied: six>=1.9 in c:\users\vinicius\anaconda3\lib\site-p
ackages (from html5lib>=1.1->yfinance==0.2.40) (1.16.0)
Requirement already satisfied: webencodings in c:\users\vinicius\anaconda3\lib\si
te-packages (from html5lib>=1.1->yfinance==0.2.40) (0.5.1)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\vinicius\anacon
da3\lib\site-packages (from pandas>=1.3.0->yfinance==0.2.40) (2.8.2)
Requirement already satisfied: tzdata>=2022.1 in c:\users\vinicius\anaconda3\lib
\site-packages (from pandas>=1.3.0->yfinance==0.2.40) (2023.3)
Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\vinicius\anac
onda3\lib\site-packages (from requests>=2.31->yfinance==0.2.40) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\vinicius\anaconda3\lib\si
te-packages (from requests>=2.31->yfinance==0.2.40) (3.4)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\vinicius\anaconda3
\lib\site-packages (from requests>=2.31->yfinance==0.2.40) (2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\vinicius\anaconda3
\lib\site-packages (from requests>=2.31->yfinance==0.2.40) (2024.2.2)
```

In [10]:
```
import yfinance as yf
import pandas as pd
import matplotlib.pyplot as plt
import mplcyberpunk
```

In [11]:
```
tickers = ["^BVSP", "^GSPC", "BRL=X"]
```

In [12]:
```
dados_mercado = yf.download(tickers, period = '6mo')
dados_mercado = dados_mercado["Adj Close"]
dados_mercado
```

```
[**********100%%**********]  3 of 3 completed
```

Out[12]:

Ticker	BRL=X	^BVSP	^GSPC
Date			
2024-03-13	4.968700	128006.000000	NaN
2024-03-14	4.969200	127690.000000	5150.479980
2024-03-15	4.992700	126742.000000	5117.089844
2024-03-18	4.968047	126954.000000	5149.419922
2024-03-19	5.029400	127529.000000	5178.509766
...	...	...	...
2024-09-09	5.596600	134737.000000	5471.049805
2024-09-10	5.584300	134320.000000	5495.520020
2024-09-11	5.662900	134677.000000	5554.129883
2024-09-12	5.667400	134029.000000	5595.759766
2024-09-13	5.567400	134881.953125	5626.020020

133 rows × 3 columns

In [13]:
```
dados_mercado = dados_mercado.dropna()

dados_mercado
```

Out[13]:

Ticker	BRL=X	^BVSP	^GSPC
Date			
2024-03-14	4.969200	127690.000000	5150.479980
2024-03-15	4.992700	126742.000000	5117.089844
2024-03-18	4.968047	126954.000000	5149.419922
2024-03-19	5.029400	127529.000000	5178.509766
2024-03-20	5.030000	129125.000000	5224.620117
...	...	...	...
2024-09-09	5.596600	134737.000000	5471.049805
2024-09-10	5.584300	134320.000000	5495.520020
2024-09-11	5.662900	134677.000000	5554.129883
2024-09-12	5.667400	134029.000000	5595.759766
2024-09-13	5.567400	134881.953125	5626.020020

125 rows × 3 columns

In [14]:
```
dados_mercado.columns = ["DOLAR", "IBOVESPA", "S&P500"]
```

```
dados_mercado
```

Out[14]:

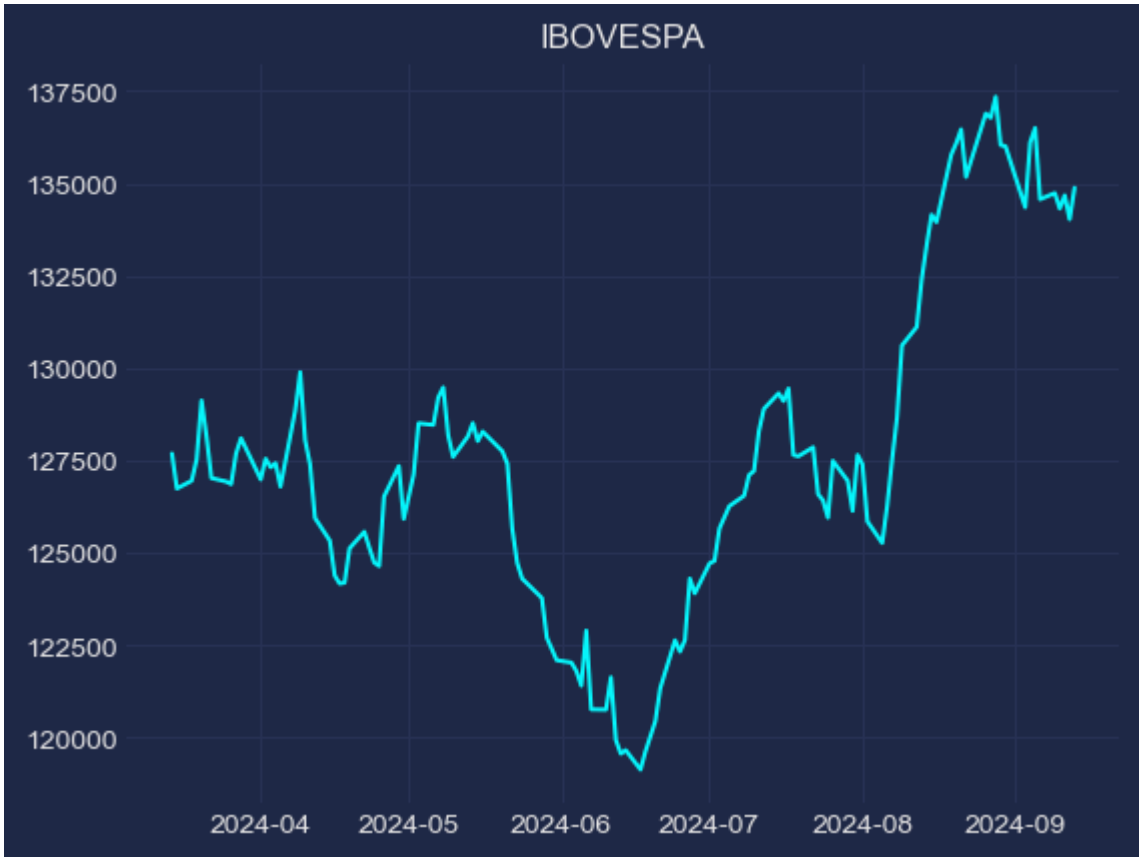
Date	DOLAR	IBOVESPA	S&P500
2024-03-14	4.969200	127690.000000	5150.479980
2024-03-15	4.992700	126742.000000	5117.089844
2024-03-18	4.968047	126954.000000	5149.419922
2024-03-19	5.029400	127529.000000	5178.509766
2024-03-20	5.030000	129125.000000	5224.620117
...	...	...	...
2024-09-09	5.596600	134737.000000	5471.049805
2024-09-10	5.584300	134320.000000	5495.520020
2024-09-11	5.662900	134677.000000	5554.129883
2024-09-12	5.667400	134029.000000	5595.759766
2024-09-13	5.567400	134881.953125	5626.020020

125 rows × 3 columns

In [15]:
```
plt.style.use("cyberpunk")
```

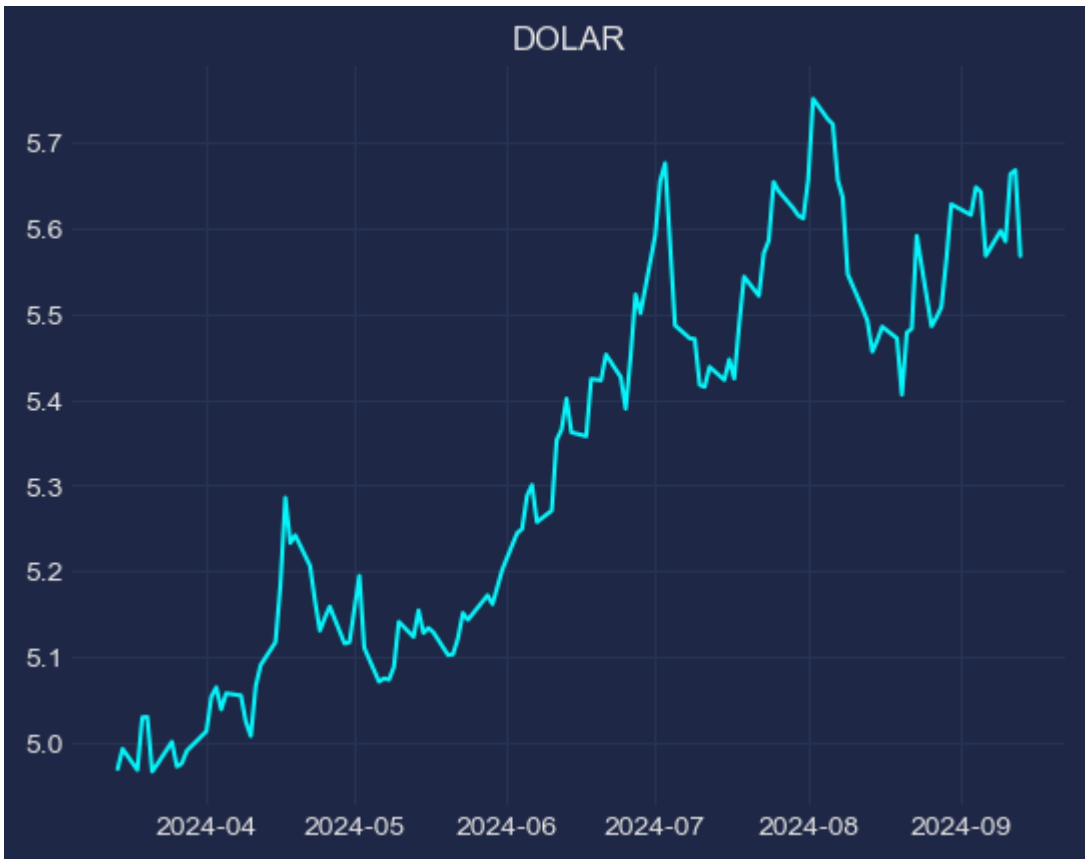
In [16]:
```
plt.plot(dados_mercado["IBOVESPA"])
plt.title("IBOVESPA")

plt.savefig("ibovespa.png")
```



In [17]:
```
plt.plot(dados_mercado["DOLAR"])
plt.title("DOLAR")

plt.savefig("dolar.png")
```



In [18]:
```
plt.plot(dados_mercado["S&P500"])
plt.title("S&P500")
```

```
plt.savefig("sp500.png")
```

In [19]:
```
retornos_diarios = dados_mercado.pct_change()

retornos_diarios
```

Out[19]:

Date	DOLAR	IBOVESPA	S&P500
2024-03-14	NaN	NaN	NaN
2024-03-15	0.004729	-0.007424	-0.006483
2024-03-18	-0.004938	0.001673	0.006318
2024-03-19	0.012349	0.004529	0.005649
2024-03-20	0.000119	0.012515	0.008904
...	...	...	...
2024-09-09	0.005227	0.001226	0.011580
2024-09-10	-0.002198	-0.003095	0.004473
2024-09-11	0.014075	0.002658	0.010665
2024-09-12	0.000795	-0.004812	0.007495
2024-09-13	-0.017645	0.006364	0.005408

125 rows × 3 columns

In [20]:
```
retorno_dolar = retornos_diarios["DOLAR"].iloc[-1]
retorno_ibovespa = retornos_diarios["IBOVESPA"].iloc[-1]
retorno_sp = retornos_diarios["S&P500"].iloc[-1]
```

In [21]:
```
retorno_dolar = str(round(retorno_dolar * 100, 2)) + "%"

retorno_dolar
```

Out[21]: '-1.76%'

In [22]:
```
retorno_ibovespa = str(round(retorno_ibovespa * 100, 2)) + "%"
retorno_sp = str(round(retorno_sp * 100, 2)) + "%"

retorno_sp
```

Out[22]: '0.54%'

In [23]:
```
retorno_ibovespa
```

Out[23]: '0.64%'

In [24]:
```
import win32com.client as win32
```

In [25]:
```
outlook = win32.Dispatch("outlook.application")

email = outlook.CreateItem(0)
```

In [81]:
```
email.To = "aaa@bbb.com.br"
email.Subject = "Relatório de Mercado"
email.Body = f'''Prezado diretor, segue o relatório de mercado:

* O Ibovespa teve o retorno de {retorno_ibovespa}.
* O Dólar teve o retorno de {retorno_dolar}.
* O S&P500 teve o retorno de {retorno_sp}.

Segue em anexo a peformance dos ativos nos últimos 5 anos.

Att,
Melhor estagiário do mundo!


'''

anexo_ibovespa = r"C:\Users\VINICIUS\Downloads\ibovespa.png"
anexo_dolar = r"C:\Users\VINICIUS\Downloads\dolar.png"
anexo_sp = r"C:\Users\VINICIUS\Downloads\sp500.png"

email.Attachments.Add(anexo_ibovespa)
email.Attachments.Add(anexo_dolar)
email.Attachments.Add(anexo_sp)

email.Send()
```

In [ ]:

In [ ]:

In [ ]: