

```
# Data manipulation libraries
import pandas as pd
import numpy as np

# Machine learning libraries
from sklearn.svm import SVC
from sklearn.preprocessing import StandardScaler
from sklearn.model_selection import RandomizedSearchCV
from sklearn.model_selection import TimeSeriesSplit
from sklearn.pipeline import Pipeline
from sklearn.metrics import confusion_matrix
from sklearn.metrics import classification_report

# Technical indicator library
import talib as ta

# Data import library
import yfinance as yf

# Plotting libraries
import matplotlib.pyplot as plt
import seaborn as sns
from matplotlib.dates import DateFormatter
import matplotlib.dates as mdates

import plotly.graph_objs as go

#Download live data
df = yf.download('TSLA',period = '1d', interval = '1m')
df

#declare figure
fig = go.Figure()

#Set up traces
fig.add_trace(go.Candlestick(x=df.index,
                             open=df['Open'],
                             high=df['High'],
                             low=df['Low'],
                             close=df['Close'], name = 'market data'))

# Add titles
fig.update_layout(
    title='Tesla price',
```

```
    yaxis_title='Stock Price (USD per Shares)')

# X-Axes
fig.update_xaxes(
    rangeslider_visible=True,
    rangeselector=dict(
        buttons=list([
            dict(count=1, label="30m", step="minute", stepmode="backward"),
            dict(count=6, label="90m", step="minute", stepmode="backward"),
            dict(count=1, label="HTD", step="hour", stepmode="todate"),
            dict(step="all")
        ])
    )
)

#Show
fig.show()

# Drop the rows with zero volume traded
df = df.drop(df[df['Volume'] == 0].index)

# Create a variable n with a value of 10
n = 10

# Create a column by name, RSI and assign the calculation of RSI to it
df['RSI'] = ta.RSI(np.array(df['Close'].shift(1)), timeperiod=n)
df
```