Assignment BTC Simple Static Backtesting Data Code for Personal Use, Based on Relative RSI and LSR Strategy, Using Historical Stock Data from the yfinance Library.

Trading Strategy:
Buy when RSI is too low and LSR is too high. Sell when the price exceeds the set take profit or falls below the set stop loss.

Customizable Parameters:
RSI and LongShortRatio

RsiStrategy:
rsi_oversold: Buy when RSI value is less than this parameter.
rsi_overbought: Sell when RSI value is greater than this parameter.
lsr_high and lsr_low: Buy when LSR value is greater than lsr_high; sell when LSR value is less than lsr_low.

stop_loss: Execute stop loss and sell held assets when price falls by a percentage greater than this parameter.

take_profit: Execute take profit and sell held assets when price rises by a percentage greater than this parameter.

cerebro.broker.setcash(amount)

data = yf.download('BTC-USD', start='start date, e.g., 2020-01-01', end='end date')

Returned Results:
Final portfolio value
Annual average return
Monthly average return
Sharpe ratio
Maximum drawdown
Trade details
Trade analysis report

Visualization:

Candlestick chart: The main chart displaying the price movement of the selected Bitcoin during the backtesting period.

Buy and sell points: Buy and sell points will be marked with arrows on the candlestick chart. RSI and LSR indicators: These two custom indicators will appear below the main chart, each on a separate row. The RSI line will be displayed within a range of 0 to 100, while LSR does not have a specific range.

Strategy asset value: At the bottom, a line graph representing the changes in the strategy's asset value.