Page Report

| Date	Open	High	Low	Close	Adj Close	Volume
4/2/90	0.078993	0.081597	0.078993	0.078993	0.055651	41731200
4/9/90	0.079861	0.079861	0.074653	0.077257	0.054428	79430400
4/16/90	0.077257	0.079861	0.075521	0.077257	0.054428	70560000
4/23/90	0.077257	0.081597	0.076389	0.078993	0.055651	37324800
4/30/90	0.080729	0.085938	0.079861	0.085938	0.060543	79171200
5/7/90	0.085938	0.08941	0.085069	0.085938	0.060543	70416000
5/14/90	0.087674	0.087674	0.084201	0.085069	0.059931	110102400
5/21/90	0.084201	0.086806	0.082465	0.083333	0.058708	78854400
5/28/90	0.083333	0.088542	0.080729	0.086806	0.061155	323107200
6/4/90	0.087674	0.09375	0.085938	0.087674	0.061766	152582400
6/11/90	0.085069	0.09809	0.085069	0.095486	0.06727	250099200
6/18/90	0.097222	0.097222	0.090278	0.094618	0.066658	73641600
6/25/90	0.094618	0.094618	0.086806	0.092014	0.064824	213984000
7/2/90	0.092014	0.09375	0.090278	0.09158	0.064518	49968000
7/9/90	0.09158	0.105035	0.090278	0.105035	0.073997	151920000
7/16/90	0.104167	0.105035	0.094618	0.097222	0.068493	231523200
7/23/90	0.097222	0.097222	0.082465	0.08941	0.062989	157478400

CISCO Systems is an American-based multinational digital communications technology conglomerate corporation headquartered in San Jose, California. The dataset is about their stock prices from 1990 to 1995. The data includes the date, open, close, high, low, adjacent close, and volume. The date is simply the date of the stock. The open is the price at which a stock started trading when the opening bell rang. Close refers to the price of an individual stock when the stock exchange closed shop for the day. The high is the highest price at which a stock is traded during a period. The low is the lowest price of the period. Adjusted close is the closing price after adjustments for all applicable splits and dividend distributions. Volume is simply the number of shares traded in a particular stock, index, or other investment over a specific period of time.

Data Collections and Explanations

Cisco Systems Stock Prices Bar Plot

Cisco Systems Stock Prices Scatter Plot
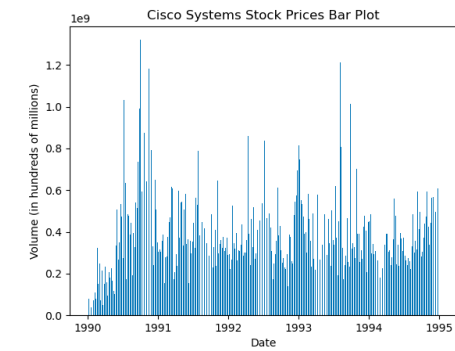
The above chart is labeled the volume. We choose

a bar chart to show the relations between the

volume and price. The relationship tells us at what

Prices the volume is at its strongest which indicates

market strength.
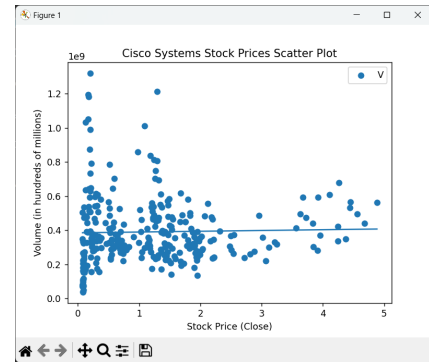
The above chart is labeled the scatter

plot. The relationship in the chart is

between volume and price. It tells where

the volume of the chart normally funclates

at.

Cisco Systems

Cisco Systems
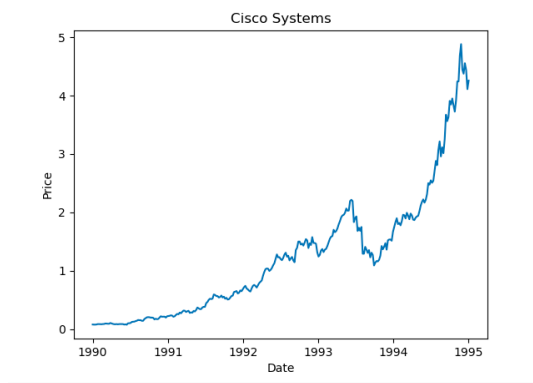
The above chart is labeled a line chart.

We choose the chart to represent the

relationship between the date and price.
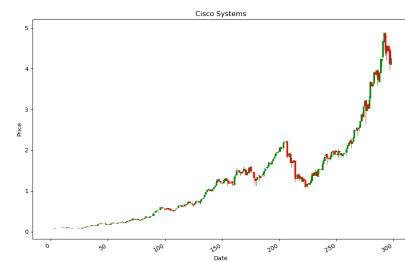
The above chart is labeled the candlestick

chart. It shows a relationship between the 4 data

columns (open, close, high, and low).
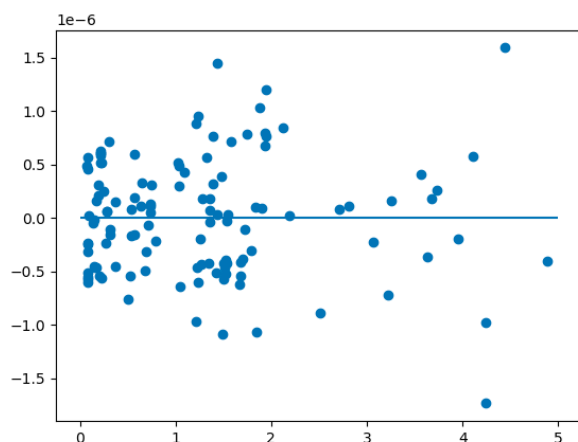
This scatter plot is our training /validation set. We used linear regression to show this relationship. Linear regression is used to model relationships between variables by fitting it into a linear equation. The MSE is predicted to be 1.73986612932396123e-16

<div align="center">Statistics</div>

<u>Calculations</u>

- -----
- Column: Open
- Mean: 1.29
- Median: 1.152
- Mode: 1.73611
- -----
- Column: High
- Mean: 1.271
- Median: 1.233
- Mode: .087674 , .088542
- -----
- Column: Low
- Mean: 1.155
- Median: 1.097
- Mode: .085069 , 1.652778
- -----
- Column: Close
- Mean: 1.223

- Median: 1.166
- Mode: .085938
- -----
- Column: Adj Close
- Mean: .862
- Median: .822
- Mode: .060543
- -----
- Column: Volume
- Mean: 390565005
- Median: 346572000
- Mode: Many different modes Ex: 41731200, 37324800, 49968000, etc.
- -----

Mean: The mean, also known as the average, is calculated by adding up all the numeric values in a dataset and dividing by the total number of values. It represents the "central tendency" of the data and gives an idea of the average value.

Median: The median is the middle value in a dataset when the values are arranged in ascending or descending order. If the dataset has an odd number of values, the median is the middle value. If the dataset has an even number of values, the median is the average of the two middle values. The median is less sensitive to extreme values and is a good measure of the "typical" value.

Mode: The mode is the value that appears most frequently in a dataset. It represents the value that occurs with the highest frequency. A dataset can have multiple modes (bimodal, trimodal, etc.) or no mode (uniform distribution). The mode is useful for identifying the most frequently occurring value in a dataset.

These statistical measures are commonly used to summarize and describe the characteristics of a dataset, providing insights into the central tendency, variability, and distribution of the data.