1. IQR: using inter-quartile range to check for outliers in the middle spread of the data, we that there are no outliers in opening nor closing prices and the graph highlights the constant growth of the stock in price.

There are some outliers in volume mostly located around the year 2014 and mostly in the fourth quarter as the stock had been split 7 to 1 to allow for more stock owners to invest into the even then high performing stock. This also is explained by the influx of stock buyers due to apple buying beats, the integration of new continuity features like handoff, the launch of the iPhone 6 and 6s. apple pay and watch were also started during the same year.

The rest are affected by similar releases although they are to a much lesser extent.

1. Change over time: the stock shows a constant healthy growth that starts from the 2014 till 2018 where a market correction happened at the end of the year then recovery at the Q1 of 2019 where it experienced another growth streak that was much sharper than the first that then happened to crash at the beginning of the COVID-19 pandemic followed by a swift recovery that was also seen across all tech stocks during the same period.

The growth trend continues till now even after the somewhat sharp market correction at the end of both 2022 and 2023.

1. The graph shows a steady decline in trading volume but this does not mean that the stock is preforming badly as the contrary was proven by the earlier graph instead this is a proof of multiple things like increasing institutional ownership as the stock is one of the world’s most valuable stocks and is appreciating very well in price which also reflects why the trading outside of hedge funds and the investment institutions. The volume spikes are caused by splits in the stock.
2. We see that the highest price is around the $260 range while the lowest is between $15 and $20. The body shows that the stock maintains its price around $30 and $150 throughout the ten-year period but the stock in the last three years has not fallen under $140.
3. The volume decreases as the price increases but this is not a negative indicator though it might seem like it. This is reflected in the previous graph as apple stock matured and became a long-term investment stock instead of a daily trading stock. The outliers in the graph are from splits one and all. The gaps in the price show explosive growth periods and are reflected in the stock change over time graph.
4. The volume traded by day remains constant throughout the work week but increases slightly on Friday as that is the market closing day.
5. The increasing volatility overtime reflects Increased institutional algorithmic trading, Changing market structure and trading mechanisms and Higher overall market volatility in recent years. This is observed through seeing that most decreases are followed by higher increases as the stock grows.

This lets us know that there is an intraday trading risk, which reflects poorly on day-traders. That there is also a gap risk that shows that the stock while having an overall growth trend does still has volatility in the price in the short range.

1. The stock shows a dip of almost $20 during the start of the COVID-19 pandemic that lasts till the Q2 and does not recover from said dip till Q3 but then continues to grow as most tech stocks did during that period of time. The volume is also high which reflects the sharp dip of panic sellers as they feared a recession of the economy during the pandemic and then a steady pattern of increasing sales as the stocks outperforms expectations.
2. The boycott of western products in the middle-east has not affected the stock much as the stock is an American stock and although it is globally traded whether through international brokerage firms most of the owners are American in nationality.

Since most apple product owners are loyal customers to the brand and the average time that it takes the normal person in developing countries to change phones is 3 years. The stock was left mostly unaffected.

1. The chart reveals a volatile but ultimately positive 30-day period with three distinct phases. the price action created what appears to be a double bottom pattern, with lows around January 30th and a slightly higher low a few days later. This classic reversal pattern often signals the end of a downtrend and the beginning of an uptrend.

Around February 1st-2nd, the price broke above a resistance level around $19 that had previously acted as support in early January. This breakout on decent volume confirmed the strength of the new uptrend.

Between January 19th-23rd, the stock went through a period of consolidation with smaller candles and narrower trading ranges, indicating a period of equilibrium between buyers and sellers before the next decisive move higher.

This shows that the trend is now clearly bullish in the short term, with momentum favoring further gains.

This 30-day candlestick chart depicts a stock that experienced a significant correction followed by a strong recovery. The technical picture appears bullish, with the stock having reclaimed all its losses from the early-January decline. The presence of a double bottom pattern with high volume at the turning point adds credibility to the reversal. The current trajectory suggests continued strength, though some resistance may be encountered as the stock approaches the $20 level.

1. The distribution is closer to normal though it shows a slight skewness to the left. This shows that the daily returns while mostly consistent suffer from some volatility and the stock itself leans toward long-term trading.
2. Conclusion: the stock is well-performing and is a very good investment for long-term traders and institutions but for day-traders it presents a slight risk that could be avoided by buying growing stocks instead of stocks of a conglomerate like Apple.