Q1. What is the distinction between a numpy array and a pandas data frame? Is there a way to convert between the two if there is?

- Answer: A NumPy array is a multi-dimensional, homogeneous array used for numerical computations. A Pandas DataFrame is a two-dimensional, tabular data structure with labeled columns, capable of holding data of different types. You can convert a Pandas DataFrame to a NumPy array using `df.to\_numpy()` and create a DataFrame from a NumPy array using `pd.DataFrame(array)`.

Q2. What can go wrong when a user enters a stock-ticker symbol, and how do you handle it?

- Answer: Users may enter invalid or non-existent stock ticker symbols. To handle this, you can implement error checking by verifying the symbol's validity using external APIs or databases. Additionally, you can provide user feedback or default behavior (e.g., showing a list of valid symbols) to guide users.

Q3. Identify some of the plotting techniques used to produce a stock-market chart.

- Answer: Common plotting techniques for stock-market charts include line charts for stock price trends, candlestick charts for price movements, bar charts for volume, moving averages for trend analysis, and Bollinger Bands for volatility.

Q4. Why is it essential to print a legend on a stock market chart?

- Answer: A legend on a stock market chart is essential because it provides context by explaining the meaning of different elements, such as lines representing stock prices or indicators. It helps readers understand the chart's components and interpretations.

Q5. What is the best way to limit the length of a Pandas DataFrame to less than a year?

- Answer: To limit the length of a Pandas DataFrame to less than a year, you can use date filtering. Filter the DataFrame to retain rows with dates within the desired time range, such as the last 365 days.

Q6. What is the definition of a 180-day moving average?

- Answer: A 180-day moving average is a technical indicator used in financial analysis. It calculates the average value of a stock's closing prices over the last 180 trading days. It helps smooth out short-term fluctuations and provides insights into the longer-term trend.

Q7. Did the chapter's final example use "indirect" importing? If so, how exactly do you do it?

- Answer: The question does not provide specific information about the chapter's final example or its use of "indirect" importing. Indirect importing typically refers to importing modules or functions indirectly through another module or script. To determine if indirect importing was used, you would need to review the code or example provided in the chapter.