**1. What advantages do Excel spreadsheets have over CSV spreadsheets?**

* Excel spreadsheets offer a more structured format compared to CSV files. They allow you to create multiple sheets within a workbook, which helps in organizing and categorizing data. Each sheet can have its own formatting, formulas, and data validation rules, making it easier to manage complex data sets.
* Excel provides rich formatting options for cells, including font styles, colors, borders, and conditional formatting. This allows you to highlight data, apply visual cues, and create professional-looking reports. CSV files, on the other hand, are plain text files and do not support cell formatting or styling.
* Excel is equipped with a wide range of built-in formulas and functions that can be used for calculations, data manipulation, and analysis. CSV files only contain raw data and do not support formulas or functions.
* Excel provides data validation features to ensure the accuracy and consistency of data entry. CSV files do not support data validation.
* Excel offers powerful charting capabilities that allow you to create various types of graphs, charts, and visualizations to represent your data visually. In CSV files, you would need to import the data into another tool or application to create visual representations.
* Excel supports macros, which are automated scripts or recorded actions that can be applied to perform repetitive tasks or automate complex processes. CSV files do not support macros or automation.

**2.What do you pass to csv.reader() and csv.writer() to create reader and writer objects?**

To create reader and writer objects in Python using the csv module, you need to pass a file object as an argument to the csv.reader() and csv.writer() functions.

**3. What modes do File objects for reader and writer objects need to be opened in?**

Reader Object:

File Mode: Read mode ('r') or Read Binary mode ('rb').

Writer Object:

File Mode: Write mode ('w') or Write Binary mode ('wb').

**4. What method takes a list argument and writes it to a CSV file?**

The writerow() method is used to write a list of values to a CSV file using a writer object in the csv module.

**5. What do the keyword arguments delimiter and line terminator do?**

delimiter:The delimiter keyword argument specifies the character used to separate individual fields (cells) within a row of the CSV file. By default, the delimiter is a comma (,), which is why CSV files are often referred to as comma-separated values.

line terminator:The line terminator keyword argument determines the character sequence used to terminate each line (row) in the CSV file. It defines how rows are separated from each other.

**6. What function takes a string of JSON data and returns a Python data structure?**

The json.loads() function is used to parse a string of JSON data and convert it into a Python data structure.

**7. What function takes a Python data structure and returns a string of JSON data?**

The json.dumps() function is used to convert a Python data structure into a string of JSON data.