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

Ans. Advantages of Excel spreadsheets over CSV spreadsheets:

Excel spreadsheets support multiple sheets within a single file, making it easier to organize and manage data that belongs together.

Excel allows for more complex data formatting, including styling, colors, fonts, and conditional formatting to enhance data visualization.

Excel supports formulas, functions, and macros, enabling advanced data calculations and automation.

Excel provides built-in data validation options to restrict data entry to specific formats or values.

Excel allows for the creation of charts and graphs directly from the data, facilitating data analysis and visualization.

Excel files can include images, shapes, and other graphical elements, making it more versatile for creating reports and presentations.

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

Ans. To create reader and writer objects in Python's csv module, we need to pass a File object opened in the appropriate mode. For example:

For the reader object: Pass an open File object with read mode ('r') to csv.reader().

For the writer object: Pass an open File object with write mode ('w') to csv.writer().

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

Ans. The File objects for reader and writer objects need to be opened in the following modes:

Reader: The File object should be opened in read mode ('r').

Writer: The File object should be opened in write mode ('w').

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

Ans. The writerow() method takes a list argument and writes it to a CSV file. It is used with a writer object from the csv module. Each element of the list corresponds to a field (or column) in the CSV file, and writerow() writes a new row with the provided data.

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

Ans. In Python's csv module, the keyword arguments delimiter and line terminator affect how the CSV data is formatted when reading or writing files.

delimiter: It specifies the character used to separate fields in the CSV data. The default delimiter is a comma (,), but we can use other characters like tabs, semicolons, etc., depending on your needs.

line terminator: It specifies the character used to mark the end of a line (row) in the CSV file. The default line terminator is the newline character (\n), but we can use other characters like \r\n, depending on the platform or requirements.

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

Ans. The function that takes a string of JSON data and returns a Python data structure is json.loads(). It is part of the built-in json module in Python. This function deserializes the JSON-formatted string and converts it into Python objects like dictionaries, lists, strings, numbers, and booleans.

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

Ans. The function that takes a Python data structure and returns a string of JSON data is json.dumps(). Also part of the built-in json module in Python, this function serializes the Python objects (e.g., dictionaries, lists) into a JSON-formatted string, which can be saved to a file or transmitted over a network.