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

Excel spreadsheets have several advantages over CSV (Comma Separated Value) spreadsheets, including:

Formatting: Excel spreadsheets allow you to format cells, rows, and columns in a variety of ways, such as changing the font size and style, adding borders and shading, and aligning text. This can make the data easier to read and understand.

Formulas and functions: Excel allows you to use formulas and functions to perform calculations on data. This can save time and reduce errors compared to manually calculating values in a CSV file.

Charts and graphs: Excel allows you to create charts and graphs to visually represent data. This can make it easier to identify trends and patterns in the data.

Data validation: Excel allows you to set rules to validate data, such as ensuring that only certain types of values are entered in a cell. This can help prevent errors and ensure data consistency.

Pivot tables: Excel allows you to create pivot tables to summarize and analyze data. This can be a powerful tool for data analysis and reporting.

Overall, Excel offers more advanced features and functionality for working with data than a basic CSV file. However, CSV files are often simpler and easier to work with for simple data storage and transfer purposes.

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's csv module, we pass file objects as arguments to the csv.reader() and csv.writer() functions.

In [3]:
```
import csv

with open('data.csv', 'r') as file:
    reader = csv.reader(file)
```

In [4]:
```
import csv

with open('data.csv', 'w', newline='') as file:
    writer = csv.writer(file)
    writer.writerow(['Name', 'Age', 'Location'])
    writer.writerow(['Alice', 30, 'New York'])
    writer.writerow(['Bob', 25, 'San Francisco'])
```

Here, the open() function is used to open the file in write mode, and the resulting file object is passed to csv.writer() to create the writer object. The newline='' argument is used to ensure that the data file uses the correct line endings for the platform you are using.

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

For a reader object, the File object needs to be opened in 'r' (read) mode.

For a writer object, the File object needs to be opened in 'w' (write) mode

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

   The writerow() method takes a list argument and writes it to a CSV file using a writer object.

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

   The delimiter keyword argument specifies the character used to separate fields in a CSV file. The default delimiter is a comma (,).

   The lineterminator keyword argument specifies the character used to terminate rows in a CSV file. The default line terminator is the newline character (\n).

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

   The json.loads() function takes a string of JSON data and returns a Python data structure, such as a dictionary or a list.

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

   The json.dumps() function takes a Python data structure, such as a dictionary or a list, and returns a string of JSON data.

In [ ]: