1. What advantages do Excel spreadsheets have over CSV spreadsheets?
   1. Formatting: Excel supports rich text formatting, colours, fonts, borders, and cell styles, enhancing readability and presentation.
   2. Formulas and Functions: Excel provides powerful built-in functions and the ability to create complex formulas for data analysis and calculations.
   3. Data Types: Excel can store various data types, including dates, numbers, text, and formulas, while CSV stores everything as plain text.
   4. Charts and Graphs: Excel allows the creation of various charts and graphs for data visualization.
   5. Multiple Sheets: Excel supports multiple worksheets within a single file, enabling better organization of related data.
   6. Data Validation and Conditional Formatting: Excel provides tools for data validation, conditional formatting, and drop-down lists to ensure data integrity and highlight specific data points.
   7. Macros and Automation: Excel supports VBA macros for automation and custom functionality.
   8. Advanced Data Analysis: Excel offers features like PivotTables, data filtering, and sorting for advanced data analysis.

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

* with open('example.csv', mode='r', newline='') as file:
  + csv\_reader = csv.reader(file)
* with open('example.csv', mode='w', newline='') as file:
  + csv\_writer = csv.writer(file)

1. What modes do File objects for reader and writer objects need to be opened in?
   1. Reading Mode ('r'): When opening a file for reading, you use 'r' mode. This allows you to read the contents of the file but not modify it.
   2. Writing Mode ('w'): When opening a file for writing, you use 'w' mode. This creates a new file or overwrites an existing file.
   3. Appending Mode ('a'): When opening a file for appending, you use 'a' mode. This allows you to add new data to the end of the file without deleting the existing data.
   4. newline='' Parameter: Using newline='' ensures that newline characters are handled correctly, which is particularly important for CSV files to prevent additional blank lines from appearing.
2. What method takes a list argument and writes it to a CSV file?
   1. the writerow() method of a csv.writer object. This method writes a single row to the CSV file.
3. What do the keyword arguments delimiter and line terminator do?
   1. delimiter:
      1. The delimiter argument specifies the character used to separate fields (columns) in the CSV file. By default, the delimiter is a comma (,).
      2. You can change it to another character, such as a tab (\t), a semicolon (;), or any other character.
   2. Line terminator:
      1. The lineterminator argument specifies the character(s) used to terminate lines in the CSV file. By default, the line terminator is a newline character (\n).
      2. You can customize it to use other characters or sequences of characters, such as a carriage return and newline (\r\n), to match different operating system conventions or specific requirements
4. What function takes a string of JSON data and returns a Python data structure?
   1. The function that takes a string of JSON data and returns a Python data structure is json.loads().
5. What function takes a Python data structure and returns a string of JSON data?
   1. The function that takes a Python data structure and returns a string of JSON data is json.dumps()