Assignment-13

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

   Below are the advantages of Excel spreadsheets over CSV spreadsheets:
   - ➢ Formatting: Excel allows you to format cells, rows, and columns to make your data more visually appealing and easier to read.
   - ➢ Formulas and Functions: Excel supports a wide range of formulas and functions that can perform complex calculations and automate repetitive tasks.
   - ➢ Charts and Graphs: Excel allows you to create charts and graphs to visualize your data and identify trends and patterns.
   - ➢ Multiple Sheets: Excel allows you to create multiple sheets within a single workbook, making it easy to organize your data.
   - ➢ Macros: Excel allows you to create and run macros, which are sets of instructions that automate repetitive tasks.

   While CSV files are simpler and easier to work with than Excel files, they lack the formatting, formula, and visualization capabilities of Excel.

2. What do you pass to csv.reader() and csv.writer() to create reader and writer objects?
   To create a reader object using the csv module, you pass a file object to the csv.reader() function and to create a writer object using the csv module, you pass a file object to the csv.writer() function.

3. What modes do File objects for reader and writer objects need to be opened in?
   When creating a csv.reader() object, file needs to be opened in 'r' mode, which stands for "read mode." This mode allows us to read data from the file. When creating a csv.writer() object, file needs to be opened in 'w' mode, which stands for "write mode." This mode allows us to write data to the file.

4. What method takes a list argument and writes it to a CSV file?
   The method that takes a list argument and writes it to a CSV file is writerow() of the csv.writer() object.

5. What do the keyword arguments delimiter and line terminator do?
   In Python's CSV module, the keyword argument delimiter specifies the character used to separate fields in a CSV file. The default delimiter is a comma.
   The keyword argument lineterminator specifies the character used to terminate lines in a CSV file. The default 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 in Python takes a string of JSON data and returns a Python data structure.

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