1. To what does a relative path refer?

Ans: A relative path in computing refers to the path that defines the location of a file or directory with respect to the current working directory. It is a path that is relative to the current directory rather than starting from the root directory. Relative paths are typically used when navigating within a file system, specifying the location of a file or directory in relation to the current working directory. They provide a way to describe the location of a file or directory based on its relationship to the current position within the file system hierarchy.

2. What does an absolute path start with your operating system?

Ans: In Windows, the root directory is denoted by the drive letter followed by a colon and a backslash, such as C:\ for the C drive. Absolute paths in Windows would look something like C:\Users\User\Documents\file.txt.

3. What do the functions os.getcwd() and os.chdir() do?

Ans: In Python, the functions os.getcwd() and os.chdir() are part of the os module, which provides a way to interact with the operating system. They are used for working with the current working directory.

4. What are the . and .. folders?

Ans: . (dot): This represents the current directory. .. (dot-dot): This represents the parent directory.

These special symbols are used to navigate and reference directories and files in the file system in a concise and efficient manner. They are commonly used in command-line interfaces and programming to perform operations relative to the current and parent directories.

5. In C:\bacon\eggs\spam.txt, which part is the dir name, and which part is the base name?

Ans: The directory name (dir name) is C:\bacon\eggs, and The base name is spam.txt

6. What are the three “mode” arguments that can be passed to the open() function?

Ans: 'r' (Read): This is the default mode.

'w' (Write): This mode opens the file for writing.

'a' (Append): This mode opens the file for writing.

7. What happens if an existing file is opened in write mode?

Ans: If an existing file is opened in write mode ('w') in Python, the file is truncated to zero length, which means that the existing contents of the file are erased. If the file doesn't exist, a new file will be created.

8. How do you tell the difference between read() and readlines()?

Ans: read(): This method reads the entire content of the file and returns it as a single string. It is useful when you want to read the entire content of the file into a single string variable.

readlines(): This method reads all the lines of the file and returns them as a list of strings. Each element in the list corresponds to a line in the file. It is beneficial when you want to process the content line by line.

9. What data structure does a shelf value resemble?

Ans: In Python, the shelve module provides a persistent dictionary-like object that can be used to store and retrieve key-value pairs. It resembles a dictionary data structure in the sense that it allows you to store data using key-value pairs, but it differs in that it persists the data to a file. This means that the data remains available even after the program has terminated.