Research and discuss different types of data files (Text, CSV, XLSX, XTML, PDF, RTF, etc.).

1. List and describe the different file types.
   * Text (.txt): is a standard text document that contains plain text.
   * Comma Seperate Values (.csv): is used as a simple file to contain tabular data (numeric and data).
   * Excel (.xlsx): is a document that storage plenty of data, many of arithmetic and logical calculation can be done easily in an excel spreadsheet.
   * eXtensilbe Markup Language (.xml): is a format for storing and transporting tiny and medium-sized data that is commonly used to share structured data.
   * The Portable Document Format (.pdf): is a reliable document exchange and presentation file format across operating systems.
   * Rich Text Format (.rtf): may include extra information such as font styles, formats, pictures, and more, in addition to simple text.
   * HyperText Markup Language (.html): is a highly interactive text-only document specifically designed for digital viewing.
   * JaveScript Objection Notation (.json): transfer format is based on the JavaScript object literal syntax.
   * Python Script (.py): A PY file is a Python program or script. Python is an interpreted object-oriented programming language. It is possible to build and change it using a text editor.
2. What type of files does Python typically work with?

The most frequent sort of file that a data scientist will ever work with is a CSV (Comma Separated Values) file.

1. How can you convert from one file type to another file type?

Right-click on the unopened file and select "Rename." Change the extension to any file type you like, and your computer will convert the file.

1. In what form does Python view data from files?

Python can view data from many format files, but the most format files are txt and CSV.

1. What are three examples of “white space” in text files?

There are three example tabs, spaces, newline.

1. What format does Python read/write file-based data?

a = open(“test.txt”, “w”)

a = open(“test.txt”, “r”)

a = open(“test.txt”, “rw”)

a = open(“test.txt”, “a”)

1. What ramification does reading numeric data from files have in Python?

Firstly, numeric data is read and converted their number by using the int and float function, respectively. During input, the for loop reads these data and accesses a line of text on each pass that converts lines to the integer contained in it, runs the string method strip to remove the newline, and then runs the int function to obtain the integer value.

1. What Python function is used to create a connection to a file?  What is its format?

Use open() function to open a file, and mode “w” to create a new file. It is like: a = open(“test.txt”, “w”)

1. What happens if a file identified as output does not exist?

If a output file does not exist that is created with a given name.

1. List and describe the file functions discussed in this unit.
   * Close(): close the open file.
   * Detach(): used to return the underlying raw stream after separating it from the buffer.
   * Fileno(): Returns a number that represents the stream from the perspective of the operating system.
   * Flush(): cleans out the internal buffer.
   * Isatty(): returns True if the file stream is interactive.
   * Read(): the requested number of bytes from the file is returned.
   * Readable(): returns True if the file is readable, False if not.
   * Readline(): returns one line from the file.
   * Readlines(): returns a list of lines from the file.
   * Seek(): sets the current file position in a file stream or returns the new position.
   * Seekable(): returns True if the file is seekable.
   * Tell(): returns the current file position.
   * Truncate(): resize the file to a specified size.
   * Writable(): returns whether the file can be written to or not.
   * Write(): writes the specified string to the file.
   * Writelines(): writes a list of strings to the file
2. Differentiate between an absolute pathname and a relative pathname.

To put it another way, an absolute path links to the same position in a file system relative to the root directory, but a relative path goes to a specific location in a file system relative to the current directory you're working on.