Unit 3

Experiential Learning – 1

1. Read a line from a text file. Try to convert the line to int. Handle ValueError and continue.
2. Open a text file and read the first five lines. Handle errors when the file is empty.
3. Write user input to a new file. Handle PermissionError if the file cannot be created.
4. Convert a string to an integer. Handle ValueError and continue the program without stopping.
5. Read a text file of names. Ask the user for a search name. Handle FileNotFoundError and handle cases where search name is not found.
6. Read a 'marks.txt' file. Some lines hold invalid marks. Handle conversion errors. Print total and average marks from valid lines.
7. Read a file that contains one integer per line. Handle lines that are empty or invalid. Save valid integers in a clean output file.
8. Process a text file that holds daily expenses. Each line has category and amount. Handle missing file, split errors, invalid amounts and empty lines. Create a cleaned version and a rejected version.
9. Read, search and append data to a contacts.txt file. Handle missing file, invalid user options and write errors.
10. A file contains one number per line. Raise a custom InvalidNumberError when a line holds letters. Skip the line.
11. Read marks from a file. Raise a custom NegativeMarkError when the mark is below zero. Raise a custom HighMarkError when the mark is above one hundred. Save valid marks to a clean file.
12. Build a text-based calculator. Accept operations from the user. Raise a custom OperationError for unsupported operations. Raise a custom InputError when inputs are invalid. Keep the program running until the user exits.