Course Code: CL-2005	Course: Operating Systems Lab (CL 2006)
Instructor(s):	Fatima Gado

1. Write a script that moves files into separate folders based on their extensions (e.g., .jpg files into an Images folder, .txt files into a Documents folder).
2. Write a script that compresses a specified directory into a "`.tar.gz`" archive with a timestamp and allows restoring from a backup.
3. Create a script that takes a filename as input and creates a backup of the file with the current date appended to the filename.
4. Create a script that lists all files in a directory sorted from smallest to largest.
5. Write a script that moves all files older than 7 days from the current directory to a backup/ folder.
6. Create a script that finds and deletes all empty files in a directory.
7. Create a script that copies all `.txt` files from one directory to another specified directory.
8. You are tasked with creating a bash script that renames multiple files in a directory according to a specified naming convention. The script should:
    a. Accept two arguments: the directory path containing the files and the new file name pattern.
    b. Rename each file in the directory by appending a sequential number to the new file name
    c. pattern (e.g., `file1.txt`, `file2.txt`, etc.).
    d. Preserve the original file extension during the renaming process. Provide feedback to the user about the renaming process, including any errors encountered.