

Task 2:

Objective: Write a Python script that monitors changes in a specified directory (e.g., file additions, deletions, modifications). A template script will be provided with necessary functions and their inputs.

Functionality:

- a. Use a Python library (such as **watchdog**) to monitor the directory for file system changes.
- b. Log changes to a file with timestamps and event types (e.g., file added, file modified, file deleted).

Requirements:

- a. Track file system events (e.g., file creation, modification, and deletion).
- b. Log the following for each event:
 - **Timestamp** (when the event occurred)
 - **Event type** (added, modified, or deleted)
 - **File name**
- c. Output this information in a log file with the format:
YYYY-MM-DD HH:MM:SS - Event Type - "File Name"

Constraints:

- a. You may not use any external systems like cloud storage monitoring. The script should work on local directories.
- b. Ensure the script is robust and can handle different types of events.
- c. Your script should continue running until manually stopped (i.e., use an infinite loop to listen for events).

Example Output:

```
2024-11-24 14:05:12 - added - "new_file.txt"
2024-11-24 14:15:30 - modified - "existing_file.txt"
2024-11-24 14:20:45 - deleted - "old_file.txt"
2024-11-24 14:25:00 - added - "another_file.txt"
```