

## LAB 9

### Task Description:

You are tasked with implementing a Java program that counts the occurrences of words in a text file. The program should perform the following tasks:

1. **WordCounter Class:**

- Implement a WordCounter class that takes a text file as input and counts the occurrences of each unique word.
- Use appropriate data structures to store the word count.
- Ensure thread safety when updating the word count.

2. **FileProcessor Class:**

- Implement a FileProcessor class that reads the content of a text file and provides it to the WordCounter class.
- Divide the text into chunks, and each thread should process a separate chunk.
- Ensure proper synchronization to prevent data corruption when multiple threads access the word counter.

3. **MultithreadingCountTask Class:**

- The MultithreadingCountTask class should create an instance of the WordCounter and multiple instances of FileProcessor threads.
- Start the threads concurrently and wait for them to finish.
- Print the final word count after processing the entire text file.