SUMMARY OF ASSIGNMENT 3

In this assignment, I had developed the task of searching a particular number within a large dataset. For this, I had taken an array list of size 10000 with a thread pool size of 10. ArrayList contains numbers from 1 to 10000 and the job of each thread is to search element linearly. Main.java will initiate the maximum thread pool size as 10 and will initiate an array list of size 10000 and a loop will iterate through each element sequentially and threads will be executed using ExecutorService class. WorkerThread class will implement Runnable interface and has a run method where threads will run in parallel and if the item is found then the item found statement is printed with its pool and its thread. Java Executor Service is a construct that allows you to pass a task which is executed by a thread asynchronously. It helps to maintain a reusable pool of threads in our assignment threads from 1 to 10 for executing submitted tasks. It executes linearly but because of critical section problem, few threads will still run even after the item is found. The item found will be displayed with its pool and thread.