Assignment 5

Problem 2:

Compile using: g++ problem2.cpp -fopenmp -o prob2
Probability of a random operation being pop = 30%

Timings:

	1e5 ops	1e6 ops	1e7 ops
16 threads	73.8 ms	221.6 ms	1675.9 ms
8 threads	52 ms	183.9 ms	1550.9 ms
4 threads	36.9 ms	162.1 ms	1487.6 ms
2 threads	27.4 ms	163.7 ms	1459.5 ms
1 thread	14.3 ms	140.8 ms	1400.7 ms

Reasoning behind observations:

The random backoff applied to threads when they collide on same node of stack adds more time to execution as the no. of threads increases (because collision increases)

Problem 1:

Working Header file for Concurrent hash table. Could not implement all the required methods due to time constraints.