



The School of Technology

BSc (Hons) Computing Software Development (Batch 001 – October 2018)

Thread base password cracker

6CS005

Assignment

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**Time consumed to run encrypt-26-03 using 1, 2, 4, 8, 16 threads**

|  |  |
| --- | --- |
| Number of Threads | Time consumed |
| 1 | 1.60099s |
| 2 | 0.90262s |
| 4 | 0.47062s |
| 8 | 0.25911s |
| 16 | 0.10241s |

**Summarization**

In one word, we're using Threads to make our app faster by doing multiple things at once. Thread will help you achieve parallel programming in technical terms. As the CPU is very fast and today includes even several nuclei, only one thread can not take advantage of all the cores, so most of the time our expensive hardware remains silent. By using multiple threads, we can use multiple core systems to serve more customers and serve them faster. Since response time is important in the fast-paced world of today, and this is the reason why we have multi-core CPUs, but if our application does not use all resources entirely, then no added value can be found, Multi-threading is one way to harness tremendous CPU computing power in our program.

In the table above, we can easily see what happens to the phase. The table is all about how many threads are consumed at a time and how much time it took. If you go through the table, you can see the difference between treads, it's mostly without threads, you get 2x seconds and with one thread, it's mostly like 2x seconds again, since one thread doesn't mean any big difference to no threads, but when it comes to 2 threads, it's about x seconds. Therefore we have to use threads. It is important to use threads where high computer processing is required for the software. It is necessary to use threads where high computer processing is needed for the program.