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Assignment for Module 1.7
6m-cloud-1.7-cpu-threading-processing /assignment.md

1. The difference between threads and processes

No	Threads	Processes
1	Thread means a segment of a process	Process means any program in execution
2	Threads take less time to terminate	Processes take more time to terminate
3	Takes less time to create	Takes more time to create
4	Threads are more efficient in communication terms	Processes are less efficient in communication terms
5	Threads share memory	Processes are isolated
6	Threads share data with each other	Processes do not share data with each other

2. The difference between multi-threading and multi-processing

No	Multi-threading	Multi-processing
1	Many threads are created of a single process to increase computing power	CPUs are added to increase computing power
2	Many threads of a process are executed simultaneously	Many processes are executed simultaneously
3	Not classified in any categories	Classified into Symmetric and Asymmetric
4	Process creation is according to economical	Process creation is a time-consuming process
5	Common address spaces are shared by all the threads	Every process owned a separate address space

References

Geeks for Geeks (2023) Difference between Process and Thread. Available at: https://www.geeksforgeeks.org/difference-between-process-and-thread/ (Accessed 1 July 2024).

Geeks for Geeks (2023) Difference between Multiprocessing and Multithreading. Available at: https://www.geeksforgeeks.org/difference-between-multiprocessing-and-multithreading/ (Accessed 1 July 2024).