Advantage of Thread

- Thread minimize the Context Switching time
- Use of threads provide Concurrency with a process
- Efficient Communication.
- It is more economical to create and Context Switch threads
- Threads allow Utilization of multiprocessor architecture to a greater scale and efficiency

Types of thread

1) User level thread
2) Kernal level thread

Kernal level thread

- Kernal level threads are the lowest level of thread that can be created in an operating System. they are handled by the operating system. The Kernel is not aware of User level threads and manages them as though they had been Single-threaded processes
- These threads are slow in comparison to User level threads

Advantage of Kernal-Level thread

- If one Kernal-level thread gets blocked no effect on other threads
- The Kernal can Schedule multiple threads Simultaneously from the Same process

↳ They are perfect for tasks requiring a lot of power or speed as they can easily access the resources

Disadvantage of Kernal-level

↳ They are slow in comparison to user-level threads
↳ Context switching is slow.
↳ Control is transferred from one thread to another within the same process and require the mode switch to the kernal

User-Level threads

↳ User level threads are created by a process and are owned by that process. When the process terminate, the thread it created terminate with it.
↳ This type of threading is easy to use and is perfect for short-running task.

Advantage of User-level threads

↳ Thread switching doesn't require Kernal-mode privilege
↳ It can run on any operating system
↳ In the user-level thread scheduling is application specific
↳ User level threads are fast to create and manage