

Day 39/60 - Difference Between Task and Thread in C#

Understanding the difference between Task and Thread is crucial for writing efficient multithreading and asynchronous code in .NET.

Thread

- Represents a physical OS-level thread.
- Requires manual management (creation, starting, and stopping).
- Higher resource consumption.

```
Thread thread = new Thread(() => Console.WriteLine("Running"));  
thread.Start();
```

Task

- A lightweight, managed unit of work.
- Uses the ThreadPool, improving efficiency.
- Supports async/await for better responsiveness.

```
Task.Run(() => Console.WriteLine("Running"));
```

Use Task for high-level, asynchronous operations.
Use Thread when fine-grained thread control is required.

#dotnet #csharp #multithreading #async #tasks