Assignment 2: Async File Read

1.Read a large text file using ReadAllTextAsync

2.Count number of lines

3.Print result without blocking UI/console

Assignment 3: Simulate fetching data from several slow network sources (using Task.Delay to mimic latency).

Use Task.WhenAll to execute these "fetches" concurrently and process the results once all are complete.

Assignment 4: Task Cancellation

Goal: Gracefully stop long-running operations.

Task: Create a CancellationTokenSource.

Start a Task that performs a loop and periodically checks token.IsCancellationRequested. Trigger the cancellation from the main thread after 2 seconds.

Assignment 5:

Convert a synchronous program to async

Identify deadlock issues with .Result

Explain difference between:

- Task.Run

- async/await

- ValueTask