## Exam Assignments V01

## Describe how parallelism differs from concurrency

**concurrency**: A system is **concurrent** if it can support two or more actions *in progress* at the same time. Concurrency means executing multiple tasks at the same time but not necessarily simultaneously.

**parallelism**: A system is **parallel** if it can support two or more actions executing simultaneously. Parallelism is a specific kind of concurrency where tasks are really executed simultaneously.[[1]](#footnote-1)

## What is fork-join parallelism?

Fork/join parallelism is a style of parallel programming useful for exploiting the parallelism inherent in divide and conquer algorithms on shared memory multiprocessors.

The idea is quite simple: a larger task can be divided into smaller tasks whose solutions can then be combined. As long as the smaller tasks are independent, they can be executed in parallel.

a paragraph of parallel code,
which has sequential part and parallel part

1. [Concurrency vs. Parallelism — A brief view | by Madhavan Nagarajan | Medium](https://medium.com/@itIsMadhavan/concurrency-vs-parallelism-a-brief-review-b337c8dac350) [↑](#footnote-ref-1)