LAB 01: CONCORRÊNCIA E PARALELISMO (11158)

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I'm Alex, a Professor Auxiliar in the department since February 2023

I'm from the United Kingdom originally

Previously, I worked as a cryptography researcher in the technology industry

I do research in the area of developing practical Internet protocols with privacy-preserving properties

Aims:

To learn the fundamentals behind developing algorithms/programs that make use of `parallel` programming and `concurrency` techniques

Labs:

Experiment with `technologies` and `frameworks` that allow us to build parallel programs

Intended outcomes:

1. To be able to `analyse` and `identify` situations in which programs could benefit from parallelism and concurrency
2. To be able to `scientifically reason` about how parallelism has impacted performance

INTRODUCTION TO THE COURSE   3

- ◇ For ∼eight[1] weeks, you will be given an `assignment` on a new theme to complete
  - ▷ The assignments are **not graded**, and are intended only to develop your understanding

- ◇ In the remaining weeks, you will be working on a **graded** `project` to complete
  - ▷ The project task will use the same `principles` and `methods` that will be used in completing each of the assignments

- ◇ `Every week`, I will be here to help with questions, problems, and anything else

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[1]Exact number may change.

STRUCTURE OF LABS

https://aulas.alxdavids.xyz/pergunta/q0990a5

To run a `Monte Carlo` simulation to estimate the value of π

◇ Assignment PDF:
   https://github.com/MEI-CP/lab-assignments/

◇ The assignment will first introduce you to using `git` and `GitHub`

◇ After that, you will proceed with the main task

Remember: **git** and **GitHub** are your friends.

TODAY'S LAB TASK

https://aulas.alxdavids.xyz/pergunta/q440e4e

https://aulas.alxdavids.xyz/pergunta/qbc4850

https://aulas.alxdavids.xyz/pergunta/q6d83d2

Don't worry if you didn't reach a complete solution

Next week we will be working on the same problem but using C

The principles you applied here will still be valid

My office hours are 14:00-16:30 on Tuesdays

See you next week!