Coding Fundamentals ASPIRE

(8/11 - 12/12)

Helix Charter High School
Isabelle Viraldo

Week 4 [9/1 + 9/5]

Welcome!

- Mondays: Discussion + Activity
- Fridays: Review + Programming Exercise

What do you want to learn?

What do you care about?

What do you want to accomplish?

feedback!

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Topics I hope to cover:

- GitHub (How to use and let's set one up!)
- AI (Machine Learning vs Generative AI vs Image Detection, let's break it down (and make one of our own))
- How to code! (Some practical skills, and also best practices)
- Binary (What is it? Why is it important? Who cares?)
- Robotics (What do you need to get a robot working?)
- How does your computer work? (What do computers do when you're not looking?
- What do you want to learn?

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What is a Function?

Takes input -> does something -> gives output

Why use Functions?

Functions

- def
- name
- parameters
- return

```
def double(n):
    return n * 2

print(double(5))
```

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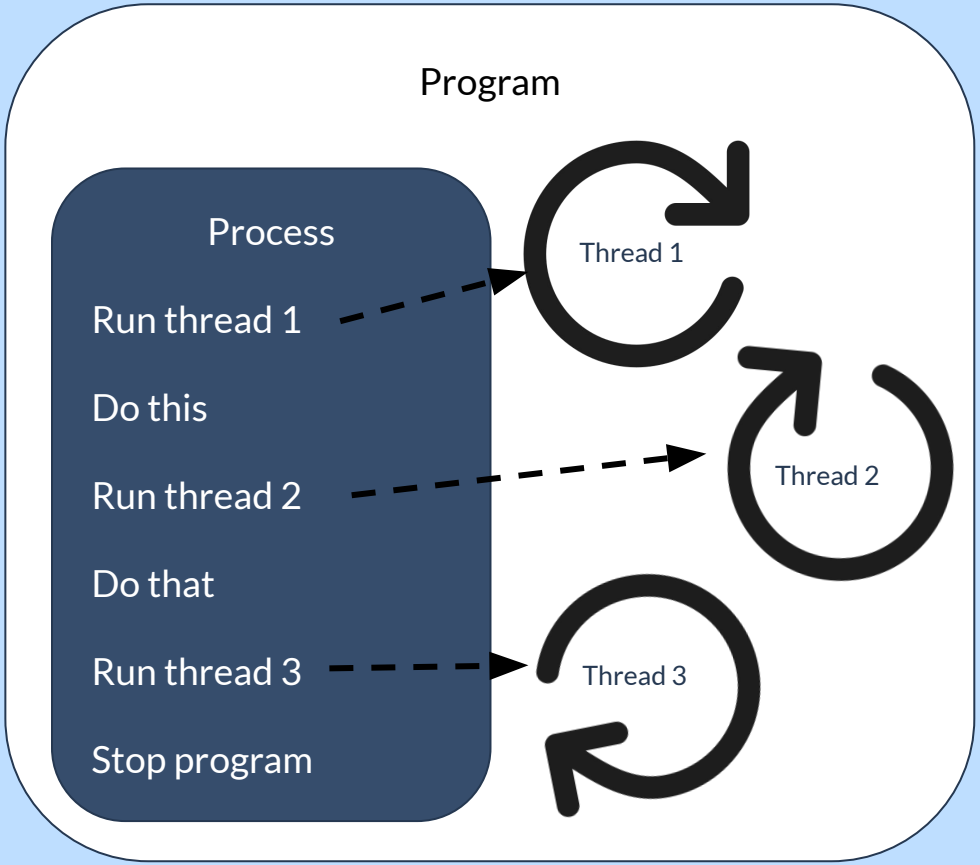
What is a thread?

Program vs Process
- Memory

Operating Systems use this
- Loading multiple tabs
- Play music in the background
- Always checking for i/o input



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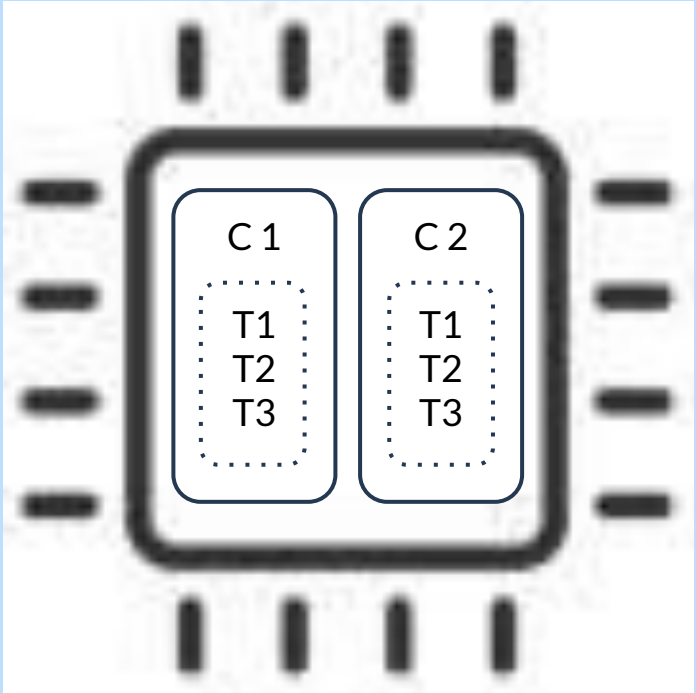
How Does it Actually Work?

Multi-Tasking doesn't actually exist for one CPU

Multiple cores = true parallelism.

Scheduler handles threads
- We will go over the scheduler more later



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Coding activity! Get out your Chromebooks!

Everyone look up:

python online compiler

Or

Go to: https://tinyurl.com/yc4w9mdh

feedback!

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