



# Async Programming

`async / await`

# Why Async Programming ?

Synchronous Programming	Asynchronous Programming
<p>Imagine you go to a restaurant.</p> <ul style="list-style-type: none"><li>→ You order food</li><li>→ Waiter stands next to your table doing nothing until your food arrives.</li><li>→ That waiter cannot serve anyone else.</li></ul>	<p>Imagine you to a restaurant</p> <ul style="list-style-type: none"><li>→ You order food</li><li>→ Waiter goes and servers 10 other tables</li><li>→ Comes back when your food is ready</li></ul>

## Problem Async Solves

- Waiting for
  - API Calls
  - Database queries
  - File reading
  - Network requests
- CPU is idle but blocked

# async & await

- **async** → this function can pause
- **await** → wait without blocking
  - Can only be used inside **async** functions