Async IO

- Async IO is a concurrent programming design or paradigm like threading or multiprocessing. **It's language-agnostic.**
- asyncio is the Python Standard Library that provides support for implementing Async IO using the async/await syntax.
- It's a perfect fit to write concurrent code for IO-bound and high-level structured network code.
- Coroutines (short for cooperative subroutines) are similar to generators.
- A coroutine is a function that can suspend its execution before reaching *return*, and it can indirectly pass control to another coroutine for some time. *A coroutine is just a function defined using the async keyword.*
- We say that an object is an **awaitable** object if it can be used in an await expression.
- There are 3 awaitable objects: coroutine, task, and future.