Performance

A simple web server

```
while (true) do {
    wait for message
    data = read(name)
    send data
}
```

I/O bottleneck

A simple web server

```
while (true) do {
    wait for message
    data = lookup(name)
    if (data not present) {
        data = read(name)
    }
    send data
}
```

Multi-threaded server

Run many threads, each with code

```
while (true) do {
    wait for message
    data = lookup(name)
    if (data not present) {
        data = read(name)
    }
    send data
}
```