

- (*2) 1. Write a simple two-threaded program that prints the words "ping" and "PONG" with 1 second delay.
- (*2) 2. There is a kind of thread called jthread which was added in C++20. Compare the C++11 thread and C++20 jthread. What is the actual benefit of jthread over thread?

Hint: For more information read the page <https://en.cppreference.com/w/cpp/thread/jthread>

- (*1) 2. What does the following program do? Explain exactly and in detail. Propose an appropriate name for this program.

```
include <thread>
#include <map>
#include <string>
#include <iostream>

std::map<std::string, std::string> french

{
    {"hello", "bonjour"},
    {"world", "tout le monde"}
};

int main()
{
    std::string greet = french["hello"];
    std::thread t([&] {
        std::cout << greet << ", ";
    });
    std::string audience = french["world"];
    t.join();
    std::cout << audience << std::endl;

    return 0;
}
```