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### General

Create separate threads for northbound and southbound farmers using POSIX synchronization. When a farmer is on the bridge, the thread will sleep for a random period to simulate travel. The program should support creating multiple threads for both northbound and southbound farmers.

## Usage

make

# **Implementation**

Two types of threads are created: northbound and southbound. Each thread represents a farmer traveling in the respective direction. The threads are synchronized using mutex. The bridge is represented by a mutex, which ensures that only one farmer can cross the bridge at a time.

### Screenshots

#### gcc main.c -o main -lpthread ./main Crossing the bridge from North Tunbridge to South Tunbridge Crossed the bridge from North Tunbridge to South Tunbridge Crossing the bridge from North Tunbridge to South Tunbridge Crossed the bridge from North Tunbridge to South Tunbridge Crossing the bridge from South Tunbridge to North Tunbridge Crossed the bridge from South Tunbridge to North Tunbridge Crossing the bridge from North Tunbridge to South Tunbridge Crossed the bridge from North Tunbridge to South Tunbridge Crossing the bridge from South Tunbridge to North Tunbridge Crossed the bridge from South Tunbridge to North Tunbridge Crossing the bridge from South Tunbridge to North Tunbridge Crossed the bridge from South Tunbridge to North Tunbridge Crossing the bridge from North Tunbridge to South Tunbridge Crossed the bridge from North Tunbridge to South Tunbridge Crossing the bridge from South Tunbridge to North Tunbridge Crossed the bridge from South Tunbridge to North Tunbridge Crossing the bridge from North Tunbridge to South Tunbridge Crossed the bridge from North Tunbridge to South Tunbridge Crossing the bridge from South Tunbridge to North Tunbridge Crossed the bridge from South Tunbridge to North Tunbridge /incent@DESKTOP-G0KHUT9:~/LOSE/bridge\$

vincent@DESKTOP-G0KHUT9:~/LOSE/bridge\$ make

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