OS HW2 Programming projects

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分工: $\frac{1}{3}$ for each

Environment

- OS: Ubuntu 22.04
- Kernel: Linux 5.15.153.1-microsoft-standard-WSL2
- Compiler: gcc 13.1.0

Ch7 project 1

Commands

```
cd 7.P1
make
./pool
```

Result image

```
gyra0229@DESKTOP-3FTD7SK:~/OSu/hw3/7.P1$ make
gcc -Wall -c client.c -lpthread
gcc -Wall -o pool client.o threadpool.o -lpthread
gyra0229@DESKTOP-3FTD7SK:~/OSu/hw3/7.P1$ ./pool
I add two values 0 and 10 result = 10
I add two values 2 and 12 result = 14
I add two values 1 and 11 result = 12
I add two values 4 and 14 result = 18
I add two values 5 and 15 result = 20
I add two values 3 and 13 result = 16
I add two values 7 and 17 result = 24
I add two values 8 and 18 result = 26
I add two values 6 and 16 result = 22
I add two values 9 and 19 result = 28
```

Figure 1: The result for `./main` in `4.P1`

Ch7 project 2

Commands

```
cd 7.P2
gcc main.c -pthread -o main
./main
```

Result image

```
gyra0229@DESKTOP-3FTD7SK:~/OSu/hw3/7.P2$ ./main
Input the number of students: 15
TA is sleeping
Student 9 wakes up TA
TA is helping student 9
Student 10 comes and waits in the hallway
Student 0 comes and waits in the hallway
Student 14 comes and waits in the hallway
TA calling the student 10
TA is helping student 10
TA calling the student 0
TA is helping student 0
TA calling the student 14
TA is helping student 14
Student 1 comes and waits in the hallway
Student 6 comes and waits in the hallway
Student 11 comes and waits in the hallway
TA calling the student 1
TA is helping student 1
Student 8 comes and waits in the hallway
TA calling the student 6
TA is helping student 6
Student 12 comes and waits in the hallway
Student 7 comes but the hallway is full
TA calling the student 11
TA is helping student 11
Student 4 comes and waits in the hallway
TA calling the student 8
TA is helping student 8
TA calling the student 12
TA is helping student 12
Student 3 comes and waits in the hallway
Student 5 comes and waits in the hallway
Student 2 comes but the hallway is full
TA calling the student 4
TA is helping student 4
Student 2 comes and waits in the hallway
Student 13 comes but the hallway is full
TA calling the student 3
TA is helping student 3
Student 7 comes and waits in the hallway
TA calling the student 5
TA is helping student 5
Student 13 comes and waits in the hallway
TA calling the student 2
TA is helping student 2
TA calling the student 7
TA is helping student 7
TA calling the student 13
TA is helping student 13
```

Figure 2: The result for `./main` in `7.P2`

Ch7 project 3

Commands

```
cd 7.P3
gcc main.c -pthread -o main
./main
```

Result image

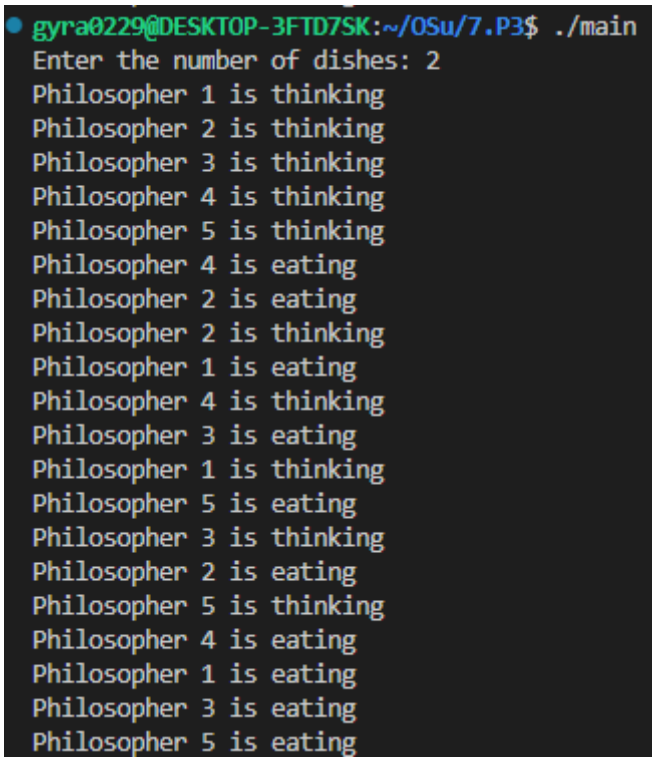

Figure 3: The result for `./main` in `7.P3`

Ch7 project 4

Commands

```
cd 7.P4
gcc main.c -pthread -o main
./main
```

Result image

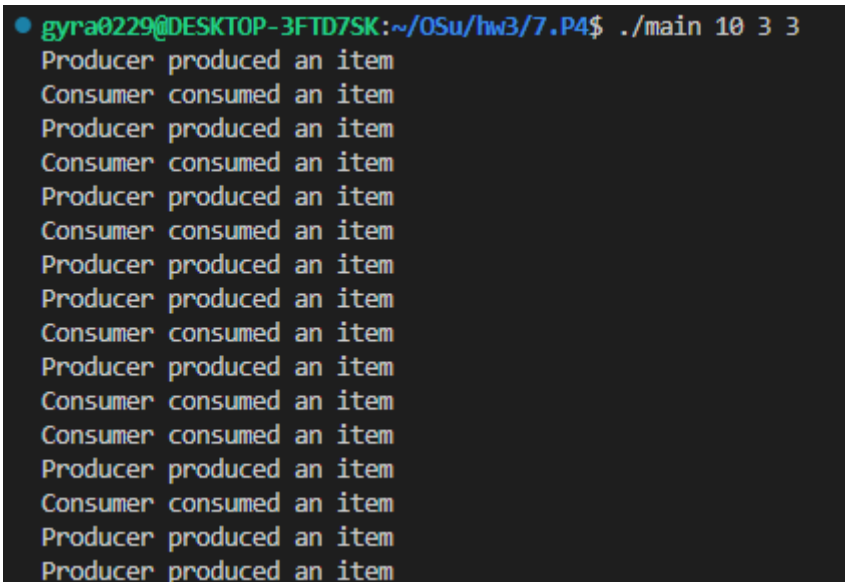

Figure 4: The result for `./main` in `7.P4`

Ch8 project 1

Commands

```
cd 8.P1
gcc main.c -pthread -o main
./main
```

Result image

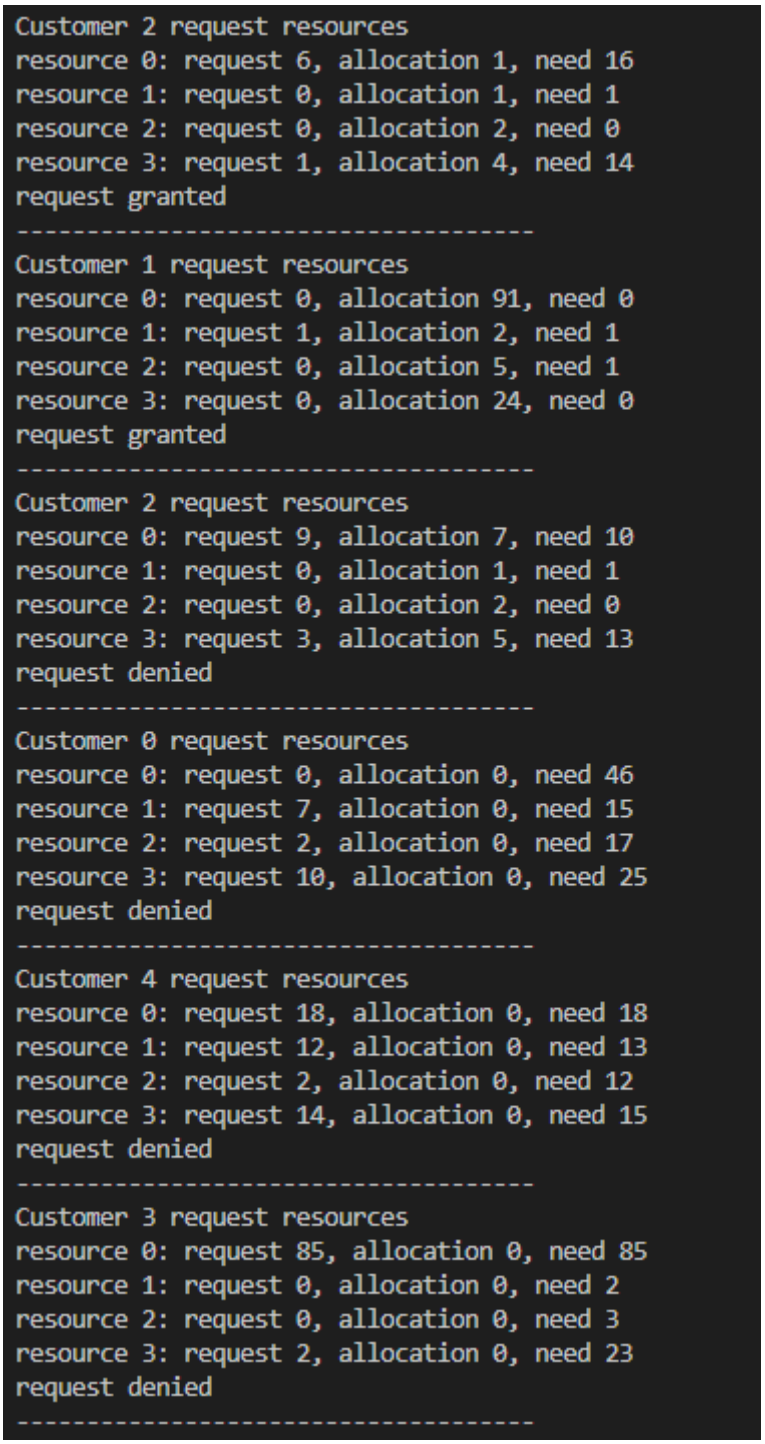

Figure 5: Part of the result for `./main` in `8.P1`

Ch9 project 1

Commands

```
cd 9.P1
gcc main.c -pthread -o main
./main
```

Result image

Figure 6: The result for `./main` in `9.P1`