



Inspiring Excellence

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COURSE CODE: CSE321

COURSE TITLE: Operating System

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Task1:

```
ubuntu@ubuntu-VirtualBox:~/Desktop$ gcc -o producer_consumer producer_consumer.c -pthread
producer_consumer.c: In function 'main':
producer_consumer.c:32:5: warning: '___builtin_memcpy' writing 7 bytes into a region of size 6 overflows the destination [-Wstringop-overflow=]
   32 |     strcpy(source, "abcdef");
      |     ^~~~~~
ubuntu@ubuntu-VirtualBox:~/Desktop$ ./producer_consumer
0 produced a by Thread 0
1 produced b by Thread 0
2 produced c by Thread 0
3 produced d by Thread 0
4 produced e by Thread 0
5 produced f by Thread 0
0 consumed f by Thread 1
1 consumed e by Thread 1
2 consumed d by Thread 1
3 consumed c by Thread 1
4 consumed b by Thread 1
5 consumed a by Thread 1
6 produced a by Thread 0
7 produced b by Thread 0
8 produced c by Thread 0
9 produced d by Thread 0
6 consumed d by Thread 1
7 consumed c by Thread 1
8 consumed b by Thread 1
9 consumed a by Thread 1
ubuntu@ubuntu-VirtualBox:~/Desktop$
```

Task2:

```
Farmer 3: Insert crops P at 0
Warehouse: PNNNN
Farmer 4: Insert crops S at 1
Warehouse: PSNNN
Shop owner 3: Remove crops P from 0
Warehouse: NSNNN
Shop owner 5: Remove crops S from 1
Warehouse: NNNNN
Farmer 2: Insert crops W at 2
Warehouse: NNWNN
Farmer 1: Insert crops R at 3
Warehouse: NNWRN
Shop owner 2: Remove crops W from 2
Warehouse: NNNRN
Shop owner 1: Remove crops R from 3
Warehouse: NNNNN
Farmer 5: Insert crops M at 4
Warehouse: NNNNM
Shop owner 4: Remove crops M from 4
Warehouse: NNNNN
Farmer 1: Insert crops R at 0
Warehouse: RNNNN
Farmer 3: Insert crops P at 1
Warehouse: RPNNN
Shop owner 1: Remove crops R from 0
Warehouse: NPNNN
Farmer 2: Insert crops W at 2
Warehouse: NPWNN
Shop owner 2: Remove crops P from 1
Warehouse: NNWNN
Farmer 4: Insert crops S at 3
Warehouse: NNWSN
Shop owner 5: Remove crops W from 2
Warehouse: NNNSN
Shop owner 3: Remove crops S from 3
Warehouse: NNNNN
```