

main.c



Run

Clear

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 int mutex = 1, full = 0, empty = 5; // buffer size = 5
4 int buffer_item = 0;
5 int wait(int s) {
6     return (--s);
7 }
8 int signal(int s) {
9     return (++s);
10 }
11 void producer() {
12     mutex = wait(mutex);
13     full = signal(full);
14     empty = wait(empty);
15     buffer_item++;
16     printf("Producer produced item %d\n", buffer_item);
17     mutex = signal(mutex);
18 }
19 void consumer() {
```

Output

--- Simulation of Classical Producer-Consumer Synchronization ---

- 1. Produce
- 2. Consume
- 3. Exit

Enter your choice: 1  
Producer produced item 1

- 1. Produce
- 2. Consume
- 3. Exit

Enter your choice: 2  
Consumer consumed item 1

- 1. Produce
- 2. Consume
- 3. Exit

Enter your choice: |