



# University of Central Punjab

(Incorporated by Ordinance No. XXIV of 2002 promulgated by Government of the Punjab)

**FACULTY OF INFORMATION TECHNOLOGY**

## Operating Systems

### Graded Lab 5

CLO	CLO STATEMENT	Bloom's Taxonomy Level	PLO
1	Solve real-world problems skillfully with precision using programming constructs learned in theory with the course toolkit	P3	5

#### Task:

Write a C program that creates multiple producer and consumer threads (e.g., 2 producers and 2 consumers).

- Producers and consumers should run in an infinite loop (or until a defined number of iterations is reached).
- Implements proper waiting and signaling:
- Producers wait when the buffer is full.
- Consumers wait when the buffer is empty.

#### Output:

Producer 1: Produced item 1

Consumer 1: Consumed item 1

Producer 2: Produced item 2

Producer 1: Produced item 3

Consumer 2: Consumed item 2

Consumer 1: Consumed item 3