



# Operating Systems Lab

## IPC – Shared Memory

*Instructor: Muhammad Ahsan*

### **Lab Task**

Write a program where processes synchronize such that a process **A** prints out the strings of two other separate writing processes (**B** first and then **C** second) from shared memory. process **A** needs to 'wait' by polling until **B** and **C** finish writing their strings to memory.

Here is the sequence of events that needs to be implemented:

1. Process **A** writes to position **1** in memory and then waits until **B** and **C** completes
2. Process **B** writes the string "shared" into memory then signals **A** & **C** that it is complete by writing into memory position **1** (note process **B** should wait to write into position 1 until after process **A** writes into position 1 in memory)
3. Process **C** writes the string "memory" into memory and then signals to process **A** that it is complete by writing into memory position 1 (note process **C** should wait until process **B** writes into position 1 in memory).

