For multiple printers part, my thought was: in setup_shared_mem() function, firstly check shm_open(MY_SHM, O_RDWR, 0666). If it equals -1, then shm_open(MY_SHM, O_CREAT, 0666). If it's not -1, then attach the shared memory. However my code didn't run successfully, the second printer shows error during the test. Hence I delete that part of code to ensure single printer part can run successfully.

To compile the code, use commands:
gcc –o client client.c –lrt –pthread / gcc –o printer printer.c –lrt –pthread

In the printer server, use command "./printer n" to set the size of buffer, which n is the number of slots.
In the client server, use command "./client x y" to give jobs, which x is client id and y is the number of pages.