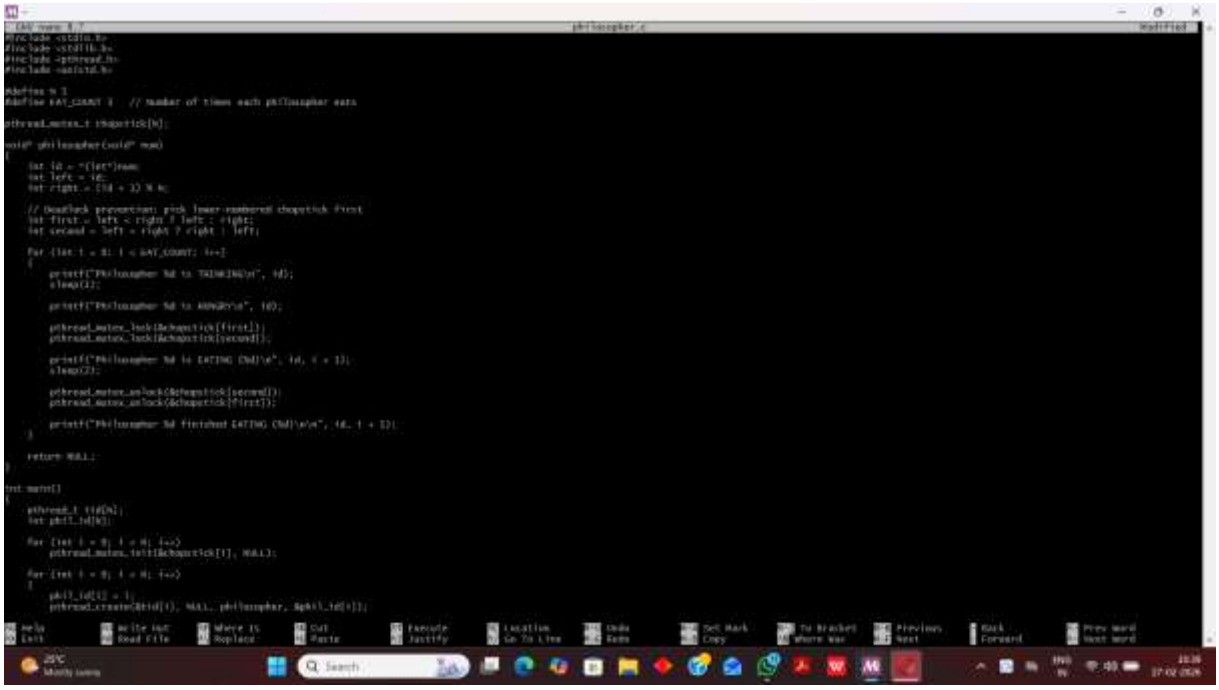
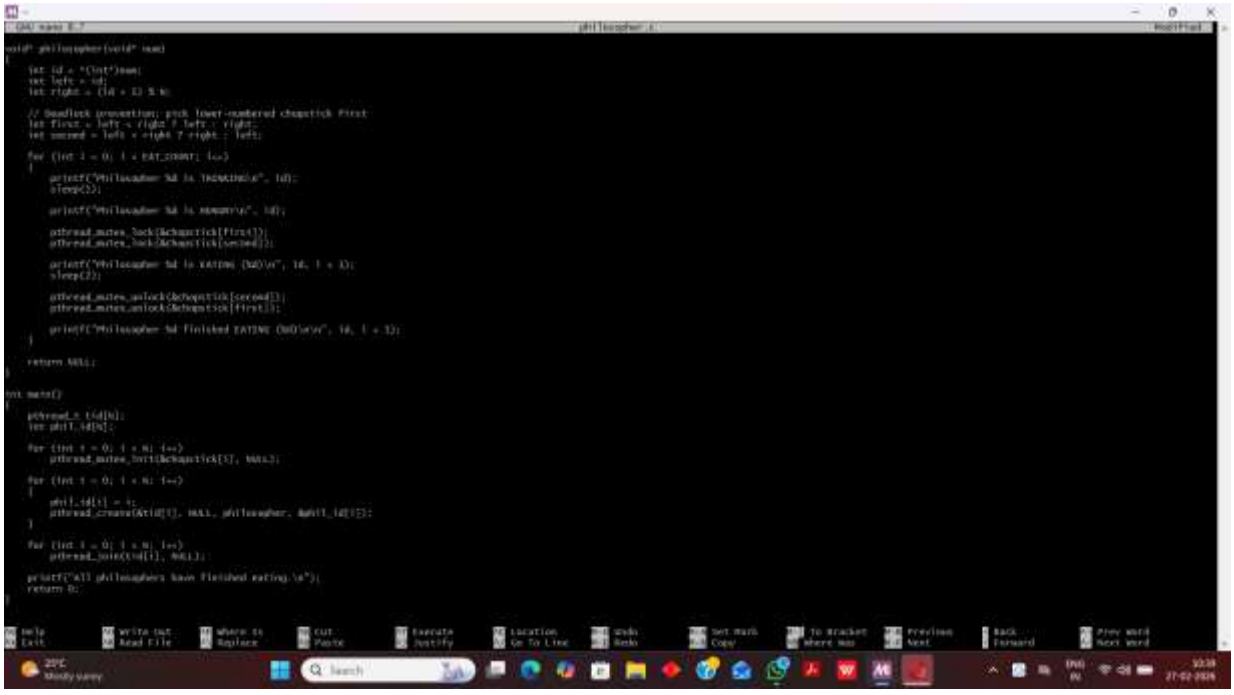
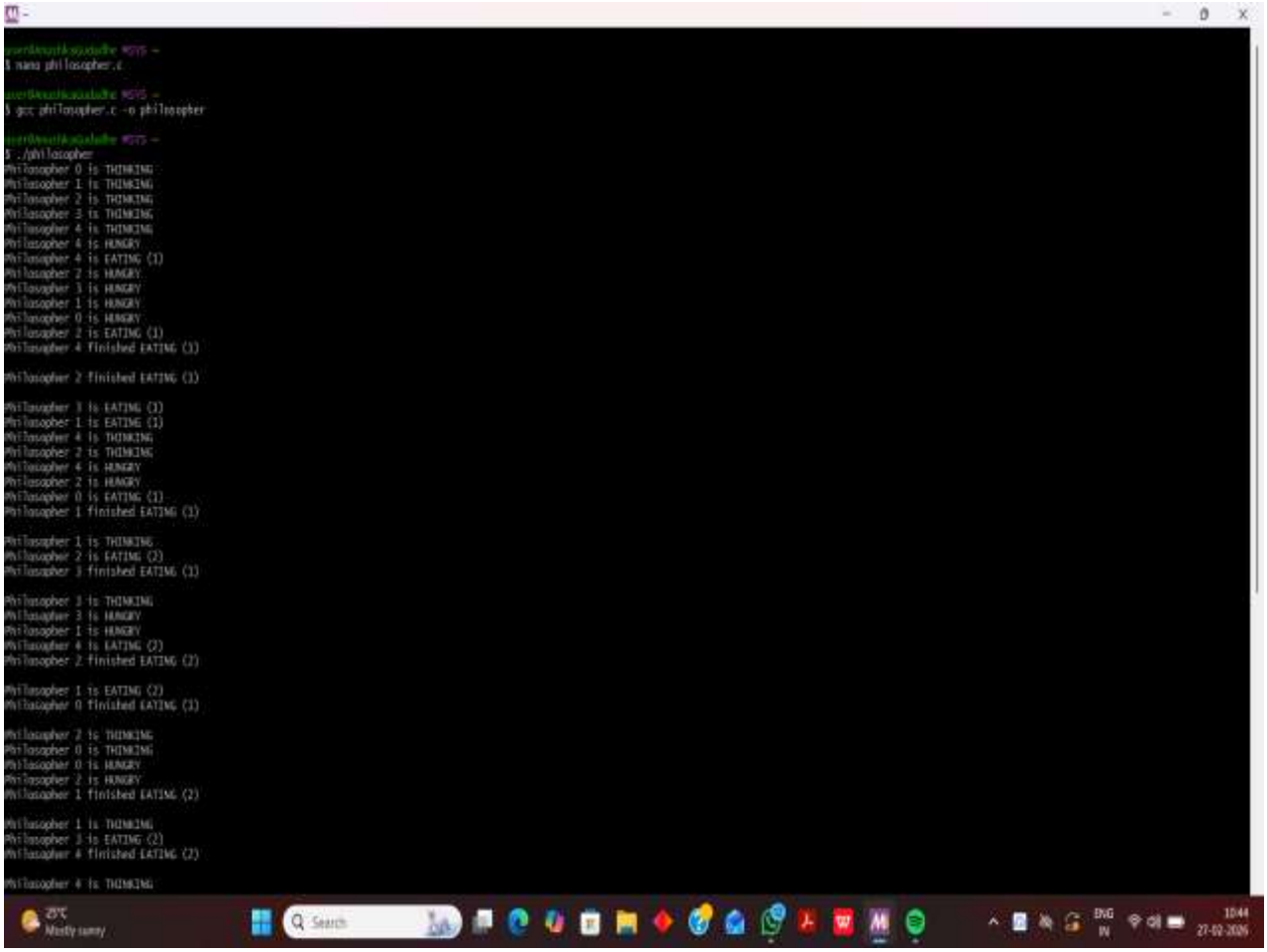
PRACTICAL 5

Aim: Considered there are N philosophers seated around a circular table with one chopstick between each pair of philosophers. There is one chopstick between each philosopher. A philosopher may eat if he can pick up the two chopsticks adjacent to him. One chopstick maybepicked up byanyoneofits adjacent followers but not both. Write a program to solve the problem using process synchronization technique.





OUTPUT:


$ nano philosopher.c
$ gcc philosopher.c -o philosopher
$ ./philosopher
Philosopher 0 is THINKING
Philosopher 1 is THINKING
Philosopher 2 is THINKING
Philosopher 3 is THINKING
Philosopher 4 is THINKING
Philosopher 4 is HUNGRY
Philosopher 4 is EATING (1)
Philosopher 2 is HUNGRY
Philosopher 3 is HUNGRY
Philosopher 1 is HUNGRY
Philosopher 0 is HUNGRY
Philosopher 2 is EATING (1)
Philosopher 4 finished EATING (1)
Philosopher 2 finished EATING (1)
Philosopher 3 is EATING (1)
Philosopher 1 is EATING (1)
Philosopher 4 is THINKING
Philosopher 2 is THINKING
Philosopher 4 is HUNGRY
Philosopher 2 is HUNGRY
Philosopher 0 is EATING (1)
Philosopher 1 finished EATING (1)
Philosopher 1 is THINKING
Philosopher 2 is EATING (2)
Philosopher 3 finished EATING (1)
Philosopher 3 is THINKING
Philosopher 3 is HUNGRY
Philosopher 1 is HUNGRY
Philosopher 4 is EATING (2)
Philosopher 2 finished EATING (2)
Philosopher 1 is EATING (2)
Philosopher 0 finished EATING (1)
Philosopher 2 is THINKING
Philosopher 0 is THINKING
Philosopher 0 is HUNGRY
Philosopher 2 is HUNGRY
Philosopher 1 finished EATING (2)
Philosopher 1 is THINKING
Philosopher 3 is EATING (2)
Philosopher 4 finished EATING (2)
Philosopher 4 is THINKING
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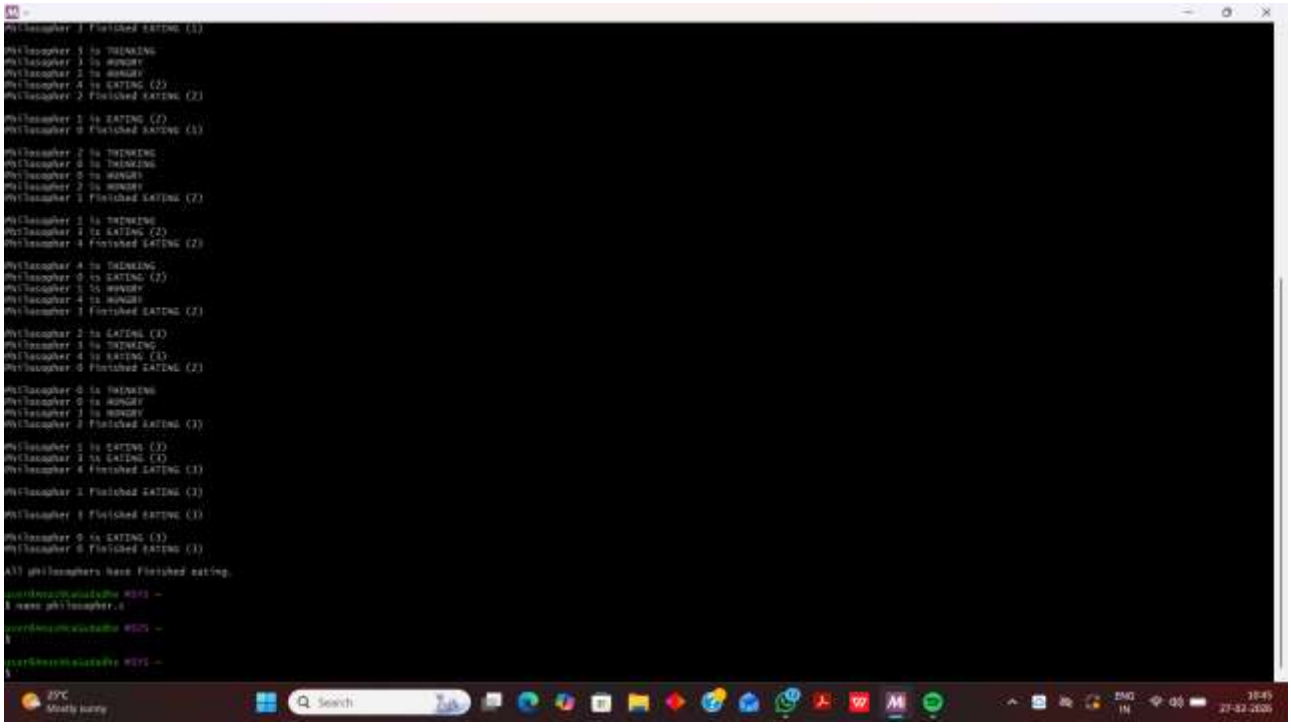
All philosophers have finished eating.
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