

به نام خدا



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Readers Writers Problem:

```
rezaee_98411387@98411387:~/Desktop$ gcc Readers_Writers.c -pthread
rezaee_98411387@98411387:~/Desktop$ ./a.out
Reader 5: read count as 1
Reader 6: read count as 1
Reader 4: read count as 1
Reader 7: read count as 1
Reader 3: read count as 1
Reader 8: read count as 1
Reader 9: read count as 1
Reader 2: read count as 1
Reader 10: read count as 1
Writer 2: modified count to 2
Writer 1: modified count to 4
Reader 1: read count as 4
Writer 5: modified count to 8
Writer 4: modified count to 16
Writer 3: modified count to 32
```

Dining Philosophers Problem:

```
rezaee_98411387@98411387:~/Desktop$ gcc Philosopher_Dining.c -pthread
Philosopher_Dining.c: In function 'test':
Philosopher_Dining.c:25:9: warning: implicit declaration of function 'sleep' [-W
implicit-function-declaration]
    sleep(2);
    ^
rezaee_98411387@98411387:~/Desktop$ ./a.out
Philosopher 1 is thinking
Philosopher 2 is thinking
Philosopher 3 is thinking
Philosopher 4 is thinking
Philosopher 5 is thinking
Philosopher 5 finished eating!!
Philosopher 3 finished eating!!
Philosopher 4 finished eating!!
Philosopher 4 is eating using chpstick[3] and chpstick[4]!!
Philosopher 2 finished eating!!
Philosopher 1 finished eating!!
Philosopher 1 is eating using chpstick[5] and chpstick[1]!!
Philosopher 4 is thinking!!
Philosopher 3 is eating using chpstick[2] and chpstick[3]!!
Philosopher 1 is thinking!!
```