#include<pthread.h>

#include<semaphore.h>

#include<unistd.h>

#include<stdio.h>

sem\_t r,w;

int rcount=0;

void\* reader (void\* arg)

{

sem\_wait(&r);

rcount++;

if(rcount == 1)

{

sem\_wait(&w);

}

sem\_post(&r);

printf("\nReading Operation Is Performed");

sem\_wait(&r);

rcount--;

if(rcount == 0)

{

sem\_post(&w);

}

sem\_post(&r);

return NULL;

}

void\* writer (void\* arg){

sem\_wait(&w);

printf("\nWriting Operation Is Performed");

sem\_post(&w);

return NULL;

}

void main()

{

pthread\_t Rtid[5] ;

pthread\_t Wtid[5];

sem\_init(&r,0,1);

sem\_init(&w,0,1);

for(int i=0 ; i<5 ;i++){

pthread\_create ( &Wtid[i] , NULL , writer ,NULL );

pthread\_create ( &Rtid[i] , NULL , reader ,NULL );

}

for(int i=0 ; i<5 ; i++){

pthread\_join( Rtid[i],NULL);

pthread\_join( Wtid[i],NULL);

}

}

OUTPUT

