Output shanget: Success chald you are Enter No. of Readers: 2 CHOSE VERMINER Enter No. of klasters: 1 (A person) show in the Readon O is torying to Read Reades O is Reading adult passer produ Number of Readers = 1 days area, text [100]; Reades 1 is toying to Read klastes D is taying to Wasite Onlines Blay Reades O is Leaving Montes O is Wanting inf magid; Data is now 0 ph - Jegr (, Jegr , (22)? Readen 1 le Reading 11 1 2000 (pois) tappement page Worldon O is Leaving Number of Readers=1 Readon 1 & Leaving M. MA 201, Spore Hoper Data head by the headen is O Data head by the headen 2 is O Data sound by the swades 1 % 0 Data Moulten by the Moulteon is 1 Data wealten by the months 1 is 2 Data written by the writer 2 % 3

Lim

To implement suadous-weilters peroblem using semaphone & shared memory.

```
Psiagolam
#include (stdio.h)
#include < pthoread.h>
#include <semaphose. h>
sem-t mutex, Norteblock
int data=0, occount=0;
void * neaden (void *ang)
3 Port fi
  } = ((int)ang);
  sem_ wast (2 mutex);
  secount = secount +1;
   if (occount == 1)
      sem-mait (2 moniteblock);
   sem-post (2 mutex);
   portnity l''Data swad by the swades od is od h". J. data);
   8(eep(1);
   sem-wast (smutex);
   secount = secount-1;
    if (execunt == 0)
       seam-post (& worlteblock);
    sem-post(&mutex);
void * Haites (void & ang)
    int f
    q= ((Pht) asy);
    sem- Mait (& Novite block);
```

```
data++;
    possibly ("Data Mositten by the Mosites ofd is old in", f, data);
    sleep (1);
    sem-post (I woulte block);
int main ()
  int i,b;
   pthocad_t sittd[5], wild[5];
   sem_init (Imutex, 0,1);
    sem_Init ( Rholiteblock, 0,1);
   100 (1°=0; 1 <= 2; 1++)
       pthocad_coreate (2 Nted [9], NULL, Notited, (void &)i);
      pthouad_covate (latid [9], NULL, suadbon, (wold *)i);
    €091 (1=0; 1<=2; 1++)
       pthouad-join (while), NULL);
       pthouad join (outid [7], NULL);
    actuain 0;
Resul
Implemented suadous- Noviteous poublem using seamaphous f
 shaped anomory.
```