LAB -10 and seallock 13/02 Inter process Communication Dimons trate Interprocess Communication (i) dan 9 C brolian value Set = falle; synchronized int get () While (! value Pet) system out-printle (" In Consumer waiting In"); wait (); 3 rotch (Interrupted English e) 1 Dystam. aut. printer ("got: "+n); System. out. printle (" | n Intimate Producer (n"). notify (); Thum ny synchronized void put (int n) White (value Set) system. out. printle (") a Producer waiting In"); 3 natch (Interrupted Exception e) System. out. println (" Interrupted Traption caught"); this on = n; value Pet = pre ; System. out prinsen (" Put: " fr): Sylum. out. profile (" In Internate Consumer In")

```
dan broducer implements burnable
    99;
    froduar (99)
        this q = 9;
         New Thotas ( this, "Produces"). start ();
     3
     public void our ()
        int i = 0
        Mute ( & 215)
        2. put (1+1);
day consumer inplements kunnakle
   Consumer (Pg)
       this, 9 = 9;
      new Threat (this, "Consumus"). Otart ();
  public road run ()
      Will (i < 15)
      int or go get () i
         System out pinker (" Covamed: "+ ");
    3 1447
```

clan PcFixed pulle static roid so main ( miry ny ()) 9 g = new g (); new Products (9); New Conjumer (9); System. out provider (" Press Confrol - C to stop") OUTPUT Put = 0 Consumer Inimate Product Waiting SANJANA SUPERH from control -c to Ap 30 mas CS 239 ga : 0 Produced Inti mate ansumed .. 0 Put: 1 Intimate Consumer Producer Warting got: 1 Istimate Producer ansumed: 2 Put: 2 Intimate amount & Produces waiting

got: 2 getmate foducer consumed: d Ro = 1

```
grimate answer
Produced warring
 901: 1
Ightimate another Producer
               consumed: 2
footner waiting
                Pat : 4
               ansum r
      9 himate
                waiting
      Producer
       907:4
       grimate Producer
       consumed = 4
        Put: 5
       ghimate consumer
      producer waiting
       g+ = 5
       gatimate producer
       consumed: 5
        Put: 6
       Intimate ansumer
       Broducer waiting
         ga: 6
        Infinate Producer
        consumed ; 6
         Put: 7
        Intimate ansumer
        Producer waiting
         go : 7
        Intimate Producer
        Consumed: 7
         Put: 8
```

Internati Communer

SANTANA SURFIN

Producer waiting ga : 0 garimate Producer ansumed: P Put: 9 Intimate ansumer Producer wasting ga: 9 gutimate Producer amound: 9 Put : 10 Intimate ans year Producer waiting ga : 10 Intimate Producer ansumed: 10 Put : 11 Intimate forsumer Produces wasting got : 11 Intimate Producer angumed: 11 Put : 12 Infimate amount Producer waiting got: 11 Intimate Producer

consumed: 11

tut . 19

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producer waiting ga: 12 Intimate Produces annul = 12 SANTAMA SURESH Put : 19 211M 22 C 5279 grimate any unex Producer waiting

```
Derdlock
dare A
   synchronized void for (B b)
        String name = Thouad. Current thread (). get Name();
        Lyram. out. printle (name + "entered A. for");
              Throad. sleep (1000);
         3 catch (Freephon e)
              System. out. printle (" A interrupted ");
         System. out. prinds (rame of "trying to call a. last()");
          b. last ();
     void last ()
         Dynam. out-printler (" Inside A's last");
dan B
  synchronized void box (A 2)
       Army name = Thread. (rissent Thread (). get Name ();
      System. out. printle (name + " entered B. 600 ");
           Thread . slep (1000);
        catch (Fruption e)
          System out printen ("10 Interrupted");
    System - out - printer ( name + "trying to call A. Last () ");
```

```
a. last () >
   void last ()
   A system out pointles (" Inside A: last");
das sindlock Emplements Purnable
  A a = NW A() >
  0 b = nlw B();
 Dealle it ()
   Thread. current Thread (). MEName (" Main Thread");
   Thread t = new Thread (this, " Pacing Thread ");
    to other ();
   a. for (b);
   System - out - printer (" Back on main thread");
public void nur ()
  Bytam-out-printle (" Bock in another thouad");
public otalic void main ( string args (7)
       New Deadlo de Vi
```

olp

Main Thread entered A. for

Pacing thread entered B. bar

Main Thread trying to call B. last ()

Grande A. last

Back in main thread

Racing Thread trying to call A. last ()

Grade A. last

Back in other thread

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