```
13/00/23
```

```
Enter Process Communication
```

```
class QS
 Int n;
                                        W. Jugani
 boolean value Set = false;
  Synchronized int gett) &
  while ( I valueset)
       System. out. print lo (" In Consumer wasting In");
       Waltel;
   Gutch ( Enterrupted Exception e) &
    System out print en ["Enterrupted Exception
                                            partle part same
   System.out. printle ("Got:"+1);
   valueset = false;
   System.out. println ("In Enthn ate Producer In");
   notify(1;
  rehum n;
sy nenronized vold put (Into) f
 while (volueset)
  fry 8
    System out print da (" In producer waiting (n");
     walter;
     4 Catch (Enterrupted Exception e)
        & System-out-println (" Luters Exception Caught"); 4
```

```
thuson = n;
valueSet = true :
Systemioutiprinten (1) a Enternate Consumer (n');
notify (1;
closs Producer implements Runnovies
Q 2;
producer (ag) &
   this. 9 = 9;
  now Arread ( this , " Broducer " ) . Starte);
   public void runers
     Int 1= 0:
                          to addition ! " Golf" fall :
   · While (12115) $
     2. put (1+1);
  class Consumer Implements Rumable &
   Q vi
   Consumer ( 222 3
    fh15.9=9;
    new Arread ( this , "Consumer " ) . stools;
    public void runes &
         Int 1=0;
```

```
WHILE CILTED }
  int reg. getes;
  System out . println (" lonsumed : "+1;
   itt;
                                           PERSONAL PROPERTY OF
class PEFIXED &
  public state void main (String angs E3) }
  Q 9 = new Qu;
   new Producer (2);
   new Consumer (2);
  System.out. printin (" Press Control - C to stop! );
  Output :-
 Put :0
Intimate Consumer
producer waiting.
 press Control - C to stop
 Got :0
 Entimate Pro duces
 put:1
In Hmate Consumer
produer walting.
Consumed : 0
Got:1
```

En Homate Producer consumed:1 put:2

Entimate Consumer
Producer walting
Got: 2

Intmate Produces

consumed ; R

Put :3

In Hmate Consumer

Producer walking

Bot: 3

In Hmate fro ducer

Consumed: 3

put: 4

En Himate Con Rumer

Producer walking.

got: 4

In Hmate Producer

Consumed: 4

Put :5

En Homate Consumer

Producer walting

Get :5

Entimate Producer

consumedis
putil

Deadlock

21140115 Class A & synchronized vold too (B & ) & String name - Thread . Current Thread (1 get Name (); System cout print In (name +" entered A. foo"); hy f Thread . Sleep [1000]; 3 Catch CException el 3 System out-print lal" A Enterrupted"; System , out println Cname + " hyping to call Brast (0"); belast a; forms to see thread those " Eadingtoness void last 01 \$ System out printen C'Enside Arlast "?; Synchronized void bar (A a) { Class B & String name = Thread current Thread 19 get warmely System vout print Inlname + " entered B. por"); try s Phread . sleep (1000); 3 Catch (Exception e) 5 System reut print In ("B Interropted");

```
Systemiout printer lame + "hyping to call A-Lost wing.
 arlostil;
 System out println l'Enside Alast");
       Deadlock implements Runnable
class
    A a = new Acr;
      Bb=new Bc1;
      Dead lock of &
        Thread . current Thread 11 . set Name (" Main Thread");
       Thread to new Thread (this, "RaungThread");
        tostert (1;
        a. foo (b); Il get lock on a in this thread.
       System.out. println(" Back in main thread");
    public Void runes &
       bibar (o); Il get lock on b in
       System out printly " Breats in other thread "3"
       public state void main (String args = 3) {
         new Dead lock (1;
```

Main Thread entered A foo Racing Thread entered entered B. bar Main Thread trying to coll B. lost () Enside A-last Back in main thread Roungshread touying to call A-lastes Enside Polast Back in other thread.