```
package Multithreading;

class Q1 {
   int n;
   boolean valueSet = false;
   synchronized int get() {
         while(!valueSet)
                  try {
                           wait();
                  } catch(InterruptedException e) {
                           System.out.println("InterruptedException caught");
                  }
         System.out.println("Got: " + n);
         valueSet = false;
         notify();
         return n;
   }

   synchronized void put(int n) {
      while(valueSet)
         try {
            wait();
          } catch(InterruptedException e) {
                  System.out.println("InterruptedException caught");
         }
      this.n = n;
      valueSet = true;
      System.out.println("Put: " + n);
      notify();
   }
}


class Producer1 implements Runnable {
   Q1 q;
   Producer1(Q1 q) {
         this.q = q;
         new Thread(this, "Producer").start();
   }

   public void run() {
      int i = 0;
```

```
        while(true) {
                q.put(i++);
        }//while
    }//run
}//class

class Consumer1 implements Runnable {
        Q1 q;
        Consumer1(Q1 q) {
                this.q = q;
                new Thread(this, "Consumer").start();
        }

        public void run() {
                while(true) {
                        q.get();
                }//while
        }//run
}//class


class PCWaitNotify {
        public static void main(String args[]) {
                Q1 q = new Q1();
                new Producer1(q);
                new Consumer1(q);
                System.out.println("Press Control-C to stop.");
        }
}
```