class get\_put {

int num;

synchronized void insert\_item(int num) {

    try {

        notify();

        wait();

    } catch (InterruptedException e) {

        System.out.println("Exception found");

    }

    this.num = num;

    System.out.println("put- " + num);

    }

}

synchronized int remove\_item() {

    try {

        notify();

        wait();

    } catch (InterruptedException e) {

        System.out.println("\nException occured\n");

    }

    System.out.println("Got the following: " + num);

    return num;

}

class Producer implements Runnable {

get\_put a;

Producer(get\_put a) {

    this.a = a;

    new Thread(this, "Producer").start();

}

public void run() {

for(i=0; i<10; i++) {

    a.insert\_item(i);

 }

}

}

class Consumer implements Runnable {

get\_put a;

Consumer(get\_put a) {

    this.a = a;

    new Thread(this, "Consumer").start();

}

public void run() {

    while (1) {

    a.remove\_item();

    }

}

}

class Monitor\_PC {

public static void main(String args[]) {

    get\_put a = new get\_put();

    new Producer(a);

    new Consumer(a);

}

}