

## Lab -10

```
class Q {
```

```
    int n;
```

```
    boolean valueSet = false;
```

```
    synchronized int get () {
```

```
        while (!valueSet)
```

```
        {
```

```
            System.out.println ("Consumer waiting");
```

```
            wait();
```

```
        } catch (InterruptedException e) {
```

```
            System.out.println ("InterruptedException");
```

```
        }
```

```
        System.out.println ("Got: " + n);
```

```
        valueSet = true;
```

```
        System.out.println ("Intimate Producer");
```

```
        notify();
```

```
        return n;
```

```
    }
```

```
class Producer implements Runnable
```

```
{
```

```
    Q q;
```

```
    Producer (Q q) {
```

```
        this.q = q;
```

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

```
    }
```

```
    public void run () {
```

```
        int i = 0;
```

```
        while (i < 10) {
```

```
            q.put (i++);
```

```

    }
}
}
class Consumer implements Runnable {

```

```

    Queue q;

```

```

    Consumer(Queue q) {

```

```

        this.q = q;

```

```

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

```

```

    }

```

```

    public void run() {

```

```

        int i = 0;

```

```

        while (i < 15) {

```

```

            int x = q.get();

```

```

            System.out.println("Consumed" + x);

```

```

            i++;

```

```

        }

```

```

    }

```

```

}

```

```

class P {

```

```

    public static void main (String args[]) {

```

```

        Queue q = new Queue();

```

```

        new Producer(q);

```

```

        new Consumer(q);

```

```

        System.out.println("Press Control-C to stop");

```

```

    }

```

```

}

```

Output

press Control-C to Stop

Put:0

Intimate Consumer

Producer Waiting

Get:1

Put:0

Intimate Producer

Put:1

Intimate Consumer

Producer Waiting

Consumed:0

Get:1

Intimate Producer

Consumed:1

~~Get:1~~

Put:2

Intimate Consumer

Producer Waiting

Get:2

Intimate consumer

Producers waiting

Costs

~~125.00~~ 125.00