## Assignment No.14 Topic: Interthread Communication

## Problem Statement:

Write a java program to illustrate interthread communication using Producer Consumer Problem

**CODE:**

class Q {

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 Producer implements Runnable {

Q q;

Thread t;

Producer(Q q) {

this.q = q;

t = new Thread(this, "Producer");

}

public void run() {

int i = 0;

while(true) {

q.put(i++);

}

}

}

class Consumer implements Runnable {

Q q;

Thread t;

Consumer(Q q) {

this.q = q;

t = new Thread(this, "Consumer");

}

public void run() {

while(true) {

q.get();

}

}

}

class PCFixed {

public static void main(String[] args) {

Q q = new Q();

Producer p = new Producer(q);

Consumer c = new Consumer(q);

// Start the threads.

p.t.start();

c.t.start();

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

}

}

**OUTPUT:**

