

Thread - Producer and Consumer With Blocking Queue

Write a multi threaded Java program to implement Producer and Consumer. Span two thread for producer and consumer from the main method. Using wait() and notify() methods for co-ordinating between threads are error-prone, So in this exercise we will use the blocking queue which is used for message passing between multiple threads. In this problem the producer inserts the number from 0 - N into the blocking queue and the consumer listens on this queue for any information. Once the data is inserted the consumer takes the message or number and prints on the console.

Create a main class "Main.java"

Create **ProducerThread** class extending Thread class with below attributes,

- queue - BlockingQueue
- numberOfElements

Create a constructor for ProducerThread with arguments queue and numberOfElements

Create ConsumerThread class extending Thread class with below attributes,

- queue - BlockingQueue
- numberOfElements

Create a constructor for ConsumerThread with arguments queue and numberOfElements

In the Main class create object for both the threads and start the thread.

Input and Output Format:

First input corresponds to the number of elements.

Refer sample input and output for formatting specifications.

[All text in bold corresponds to input and the rest corresponds to output]

Sample Input/Output :

5

Consume value: 0

Consume value: 1

Consume value: 2

Consume value: 3

Consume value: 4