

## PRACTICAL 4

AIM: Write a program that implements FCFS scheduling algorithm.

CODE:

```
import java.util.Vector;
```

```
class Producer extends Thread {
```

```
    // initialization of queue size
```

```
    static final int MAX = 7;
```

```
    private Vector messages = new Vector();
```

```
    @Override
```

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

```
        try {
```

```
            while (true) {
```

```
                putMessage();
```

```
                sleep(1000);
```

```
            }
```

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

```
        }
```

```
    }
```

```
    private synchronized void putMessage()
```

```
        throws InterruptedException {
```

```
        while (messages.size() == MAX)
```

```
            wait();
```

```
        messages.addElement(new java.util.Date().toString());
```

```
    notify();  
}
```

```
public synchronized String getMessage()  
    throws InterruptedException {  
    notify();  
    while (messages.size() == 0)  
        wait();  
    String message = (String) messages.firstElement();  
    messages.removeElement(message);  
    return message;  
}  
}
```

```
class Consumer extends Thread {  
    Producer producer;
```

```
    Consumer(Producer p) {  
        producer = p;  
    }
```

```
@Override
```

```
public void run() {  
    try {  
        while (true) {  
            String message = producer.getMessage();
```

```

        System.out.println("Got message: " + message);
        sleep(2000);
    }
} catch (InterruptedException e) {
}
}

public static void main(String args[]) {
    Producer producer = new Producer();
    producer.start();
    new Consumer(producer).start();
}
}

```

## OUTPUT:

```

Got message: Thu Aug 18 08:53:40 GMT 2022
java -cp /tmp/fv7LvSFsDH Consumer
Got message: Thu Aug 18 08:53:49 GMT 2022Got message: Thu Aug 18 08:53:50 GMT 2022
Got message: Thu Aug 18 08:53:51 GMT 2022
Got message: Thu Aug 18 08:53:52 GMT 2022
Got message: Thu Aug 18 08:53:53 GMT 2022
Got message: Thu Aug 18 08:53:54 GMT 2022
Got message: Thu Aug 18 08:53:55 GMT 2022
Got message: Thu Aug 18 08:53:56 GMT 2022
Got message: Thu Aug 18 08:53:57 GMT 2022
Got message: Thu Aug 18 08:53:58 GMT 2022
Got message: Thu Aug 18 08:53:59 GMT 2022

```