

# Process 1

```

...
loop_outer:
  loop_inner:
    inInd = inInd+1
    data = dataSrc[inInd]
    Odata = data * Odata
    if (data > 10)
      goto loop_inner;
    outInd = outInd+1
    indArr[outInd] = outInd
    if(outInd < 100)
      goto loop_outer
...

```

Process 1

Process 2

```

...
loop_outer:
  loop_inner:
    inInd = inInd+1
    data = dataSrc[inInd]
    push(dataQ, data)
    if (data > 10)
      goto loop_inner
    outInd = outInd+1
    push(outIndQ, outInd)
    if(outInd < 100)
      goto loop_outer
...

```

```

...
loop_outer:
  pop(outIndQ, outInd)
  indArr[outInd] = outInd
  loop_inner:
    pop(dataQ, data)
    Odata = data * Odata
    if (data > 10)
      goto loop_inner
    if(outInd < 100)
      goto loop_outer
...

```

loop\_outer

loop\_inner

```

(0,0) inInd = inInd+1
(0,0) data = dataSrc[inInd]
(0,0) push(dataQ, data)
(0,1) inInd = inInd+1
(0,1) data = dataSrc[inInd]
(0,1) push(dataQ, data)
(0,2) inInd = inInd+1
(0,2) data = dataSrc[inInd]
(0,2) push(dataQ, data)
(0,3) inInd = inInd+1
(0,3) data = dataSrc[inInd]
(0,3) push(dataQ, data)
...
(0,i) push(dataQ, data)
...
(0,0) outInd = outInd+1
(0,0) push(outIndQ, outInd)
...

```

Process 2

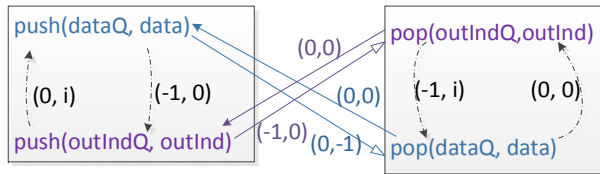
```

(0,0) pop(outIndQ, outInd)
(0,0) indArr[outInd] = outInd
...
(0,0) pop(dataQ, data)
(0,0) Odata = data * Odata
(0,1) pop(dataQ, data)
(0,1) Odata = data * Odata
(0,2) pop(dataQ, data)
(0,2) Odata = data * Odata
(0,3) pop(dataQ, data)
(0,3) Odata = data * Odata
(0,4) pop(dataQ, data)
(0,4) Odata = data * Odata
...

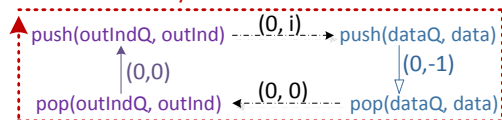
```

loop\_outer

loop\_inner



Cycle for Artificial Deadlock



Sum of edge weight = (0, i-1)