**Exercise 2-1**

**RunMultiplier.groovy**

**def** processList = [ **new** Producer ( outChannel: connect1.out() ),

//insert here an instance of multiplier with a multiplication factor of 4

**new** Multiplier ( inChannel: connect1.in(),

outChannel: connect2.out(), factor: 4 ),

**new** Consumer ( inChannel: connect2.in() )

]

**Multiplier.groovy**

// write i \* factor to outChannel

outChannel.write (i \* factor)

// read in the next value of i

i = inChannel.read()

**Consumer.groovy**

//insert a modified println statement

println "Next integer multiplied by 4 is: ${i}"

i = inChannel.read()

**Output**

next: 2

next: Next integer multiplied by 4 is: 8

3

next: Next integer multiplied by 4 is: 12

4

next: Next integer multiplied by 4 is: 16

5

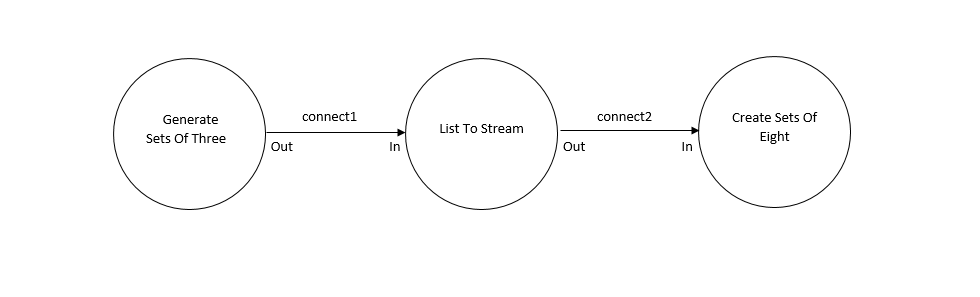
next: Next integer multiplied by 4 is: 20

2

next: Next integer multiplied by 4 is: 8

0

Finished

**Exercise 2-2**

**GenerateSetsOfThree.groovy**

//write the terminating List as per exercise definition

outChannel.write([-1,-1,-1])

**ListToStream.groovy**

// hint: output list elements as single integers

**for**(i **in** 0 ..< inList.size){

outChannel.write(inList[i])

}

inList = inChannel.read()

**CreateSetsOfEight.groovy**

// put v into outList and read next input

outList[i] = v

v = inChannel.read()

**Output**

Eight Object is [1, 2, 3, 4, 5, 6, 7, 8]

Eight Object is [9, 10, 11, 12, 13, 14, 15, 16]

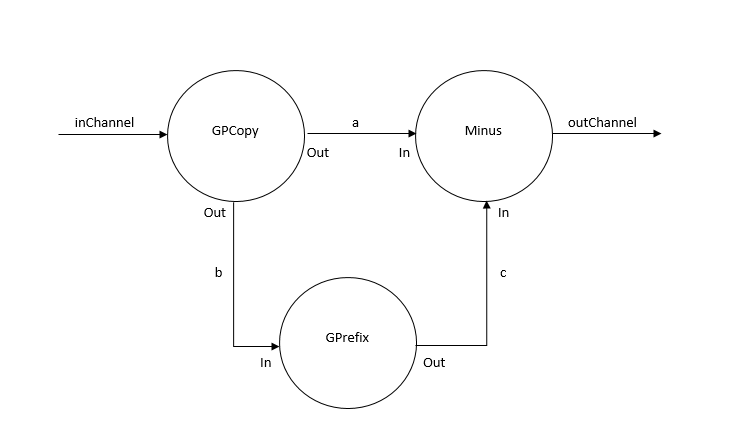
Eight Object is [17, 18, 19, 20, 21, 22, 23, 24]

Finished

**Questions**

1. To output 6 integers, change the line **for(i in 0 ..7)** to **for(i in 0 ..5)** in CreateSetsOfEight.groovy
2. Create a variable **size** that can be adjusted to any number
3. The process will just get stuck, it will eventually read the termination number of -1 but then will have no number to read and will be stuck.

**Exercise 3-1**

 Differentiate