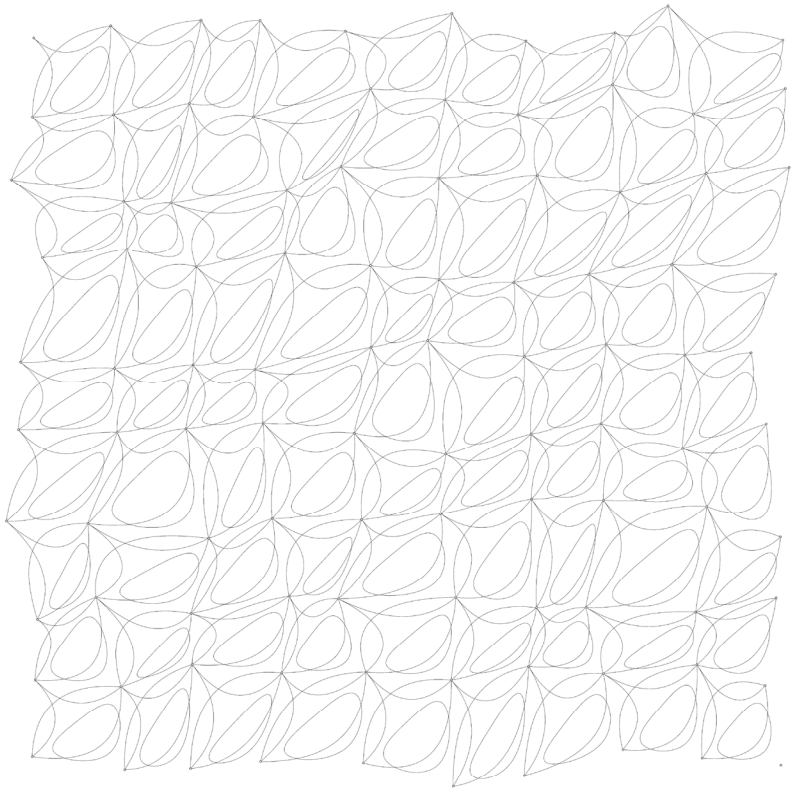

```
0   ########################################
1   ########################################
2
3   #NOTES: WEEK 3 ASSIGNMENT 1
4   #NAME: Maho Kobayashi
5
6   ########################################
7   ########################################
8
9   import rhinoscriptsyntax as rs
10  import random as rnd
11
12  #create an empty list / dictionary
13  ptDict = {}
14  crvList = []
15
16  #input values for imax and jmax
17  imax = rs.GetInteger('input number in x direction',10)
18  jmax = rs.GetInteger('input number in y direction',10)
19
20  #incremental loop to generate points
21  for i in range(imax):
22          for j in range(jmax):
23                  #define x in terms of i
24                  #define y in terms of j
25                  x = i*6+(rnd.random()*3)
26                  y = j*6+(rnd.random()*3)
27                  z = 0
28
29                  #render point in rhinospace
30                  rs.AddPoint(x,y,z)
31
32                  #save point values in a dictionary using (i,j) as
    a key
33                  ptDict[(i,j)] = (x,y,z)
34
35  #loop through dictionary to create geometry
36  for i in range (imax):
37          for j in range(jmax):
38
39                  #CREATE GEOMETRY
40                  if i > 0 and j > 0:
41                          #find centroid of module using midPt of constructed
      line
42                          constLine = rs.AddLine(ptDict[(i,j)],ptDict[(i-1
    ,j-1)])
43                          centroid = rs.CurveMidPoint(constLine)
44
45                          #delete constructed line
46                          rs.DeleteObject(constLine)
47
48                          #POINTS
49
50                          #      2-------1      1:  (i,j)
51                          #      |              |      2:  (i-1,j)
52                          #      |    mid    |      3:  (i-1,j-1)
53                          #      |              |      4:  (i,j-1)
54
```

```
54                          #      3-------4
55
56                          #draw line from 1 to centroid to 2
57                          rs.AddCurve((ptDict[(i,j)], centroid, ptDict[(i-
    1,j)]))
58
59                          #draw line from 2 to centroid to 3
60                          rs.AddCurve((ptDict[(i-1,j)], centroid, ptDict[(
    i-1,j-1)]))
61
62                          #draw line from 1 to 4 to 3
63                          curve_0 = rs.AddCurve((ptDict[(i,j)], ptDict[(i
    ,j-1)],
64                          ptDict[(i-1,j-1)]))
65
66                          #draw line from 1 to 2 to 3
67                          curve_0 = rs.AddCurve((ptDict[(i,j)], ptDict[(i
    -1,j)],
68                          ptDict[(i-1,j-1)]))
69
70                          #construct a closed curve from corner points
71                          curve = rs.AddCurve((ptDict[(i,j)],centroid,ptDict
    [(i-1,j-1)],
72                          ptDict[(i,j-1)],ptDict[(i,j)]))
```