

Module 2: Data Lab

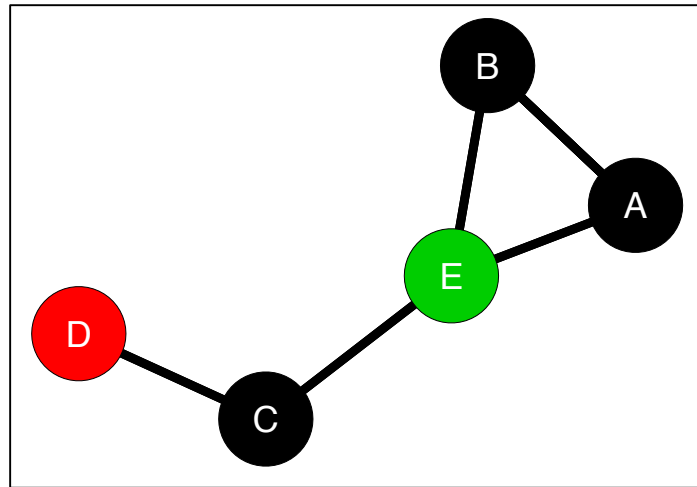
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Goals for Module 2: Data Lab

~Participants will become familiar with three relational data structures that generate social networks through reverse coding exercises. This exercise will prepare participants for importing network data into SNACN or RStudio software.

Edgelist

One way to learn how to structure network data correctly is to reverse code a network. In this section of the lab, we will start with the network image below and replicate the edgelist that would produce this network.

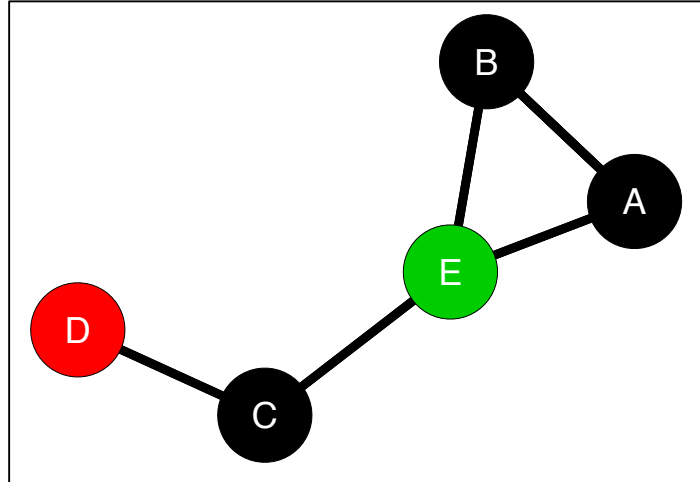


Fill in the table below to complete the edgelist. The letters inside the nodes are the node ids or node names. Connecting two node ids in a row of an edgelist will generate a single edge, so the edgelist below has space for five edges to account for the five edges in the image above. Remember that the order of edges does not matter in an edgelist. This is an undirected network so it also does not matter which node goes in first column or the second column. The answers to this edgelist are in the review section of this lab.

Node 1	Node 2

Sociomatrix

In this section of the lab we will start with the network image below and replicate the sociomatrix that would produce this network.

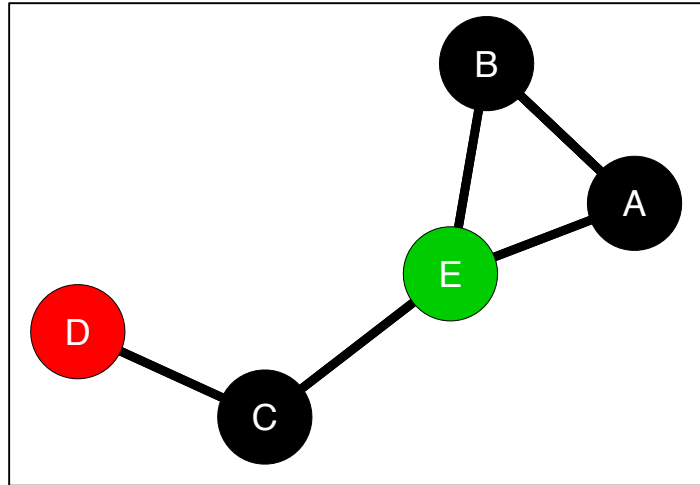


Complete the sociomatrix table below. Fill in a 1 when an edge appears between the two nodes and a 0 if no edge appears between the two nodes. In the end you should only have five 1s to indicate the five edges in this network. The zeros along the diagonal of the sociomatrix have been filled in for you because the nodes don't have ties to themselves. The sociomatrix will be symmetric because this network is undirected, so dashes in the upper triangle have been filled in for you since you don't need to complete both triangles. The answers to this sociomatrix is in the review section of this lab.

	A	B	C	D	E
A	0	-	-	-	-
B		0	-	-	-
C			0	-	-
D				0	-
E					0

Two-mode Data

In this section of the lab we will start with the network image below and replicate the two-mode data that would produce this network. Technically, this network would be a one-mode projection of individuals from two-mode data.



Complete the table below to replicate the two-mode data. It is possible to complete this table with three events. Using more than three events could also produce this network. Use the numbers 1-3 to differentiate the events in the table below. List all of the node ids that appear in each of the 3 events. The order of the events and the order of the individuals listed with each even do not matter. The answers to the two-mode data are in the review section of this lab.

person	event

Review of Module 2: Data Lab

Answers to the Edgelist section:

The order of your rows might vary and you may have chosen to put the nodes in a different order in the columns, but in general your edgelist should contain the same information as the edgelist below.

Node 1	Node 2
A	B
A	E
B	E
E	C
D	C

Answers to the Sociomatrix section:

Your sociomatrix should look identical to the sociomatrix below.

	A	B	C	D	E
A	0	-	-	-	-
B	1	0	-	-	-
C	0	0	0	-	-
D	0	0	1	0	-
E	1	1	1	0	0

Answers to the Two-mode Data section:

Your results may vary if you numbered the events in a different order than we did here, but the patterns should be the same.

person	event
A	1
B	1
E	1
C	2
E	2
C	3
D	3