

Modeling Relationships in the Marvel Social Universe



Swetha Kolalapudi

CO-FOUNDER, LOONYCORN

www.loonycorn.com

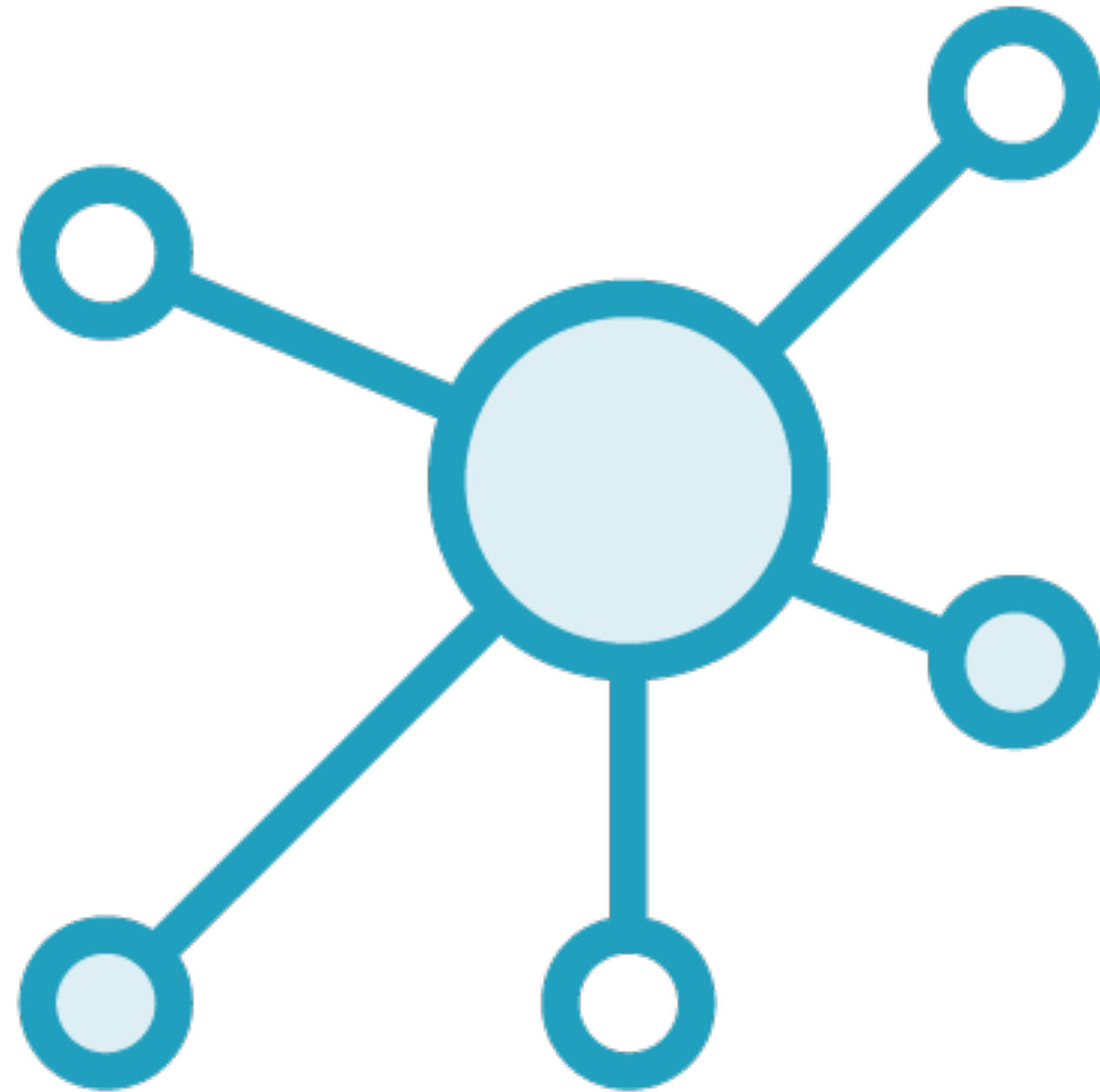
Overview

Find the most influential characters

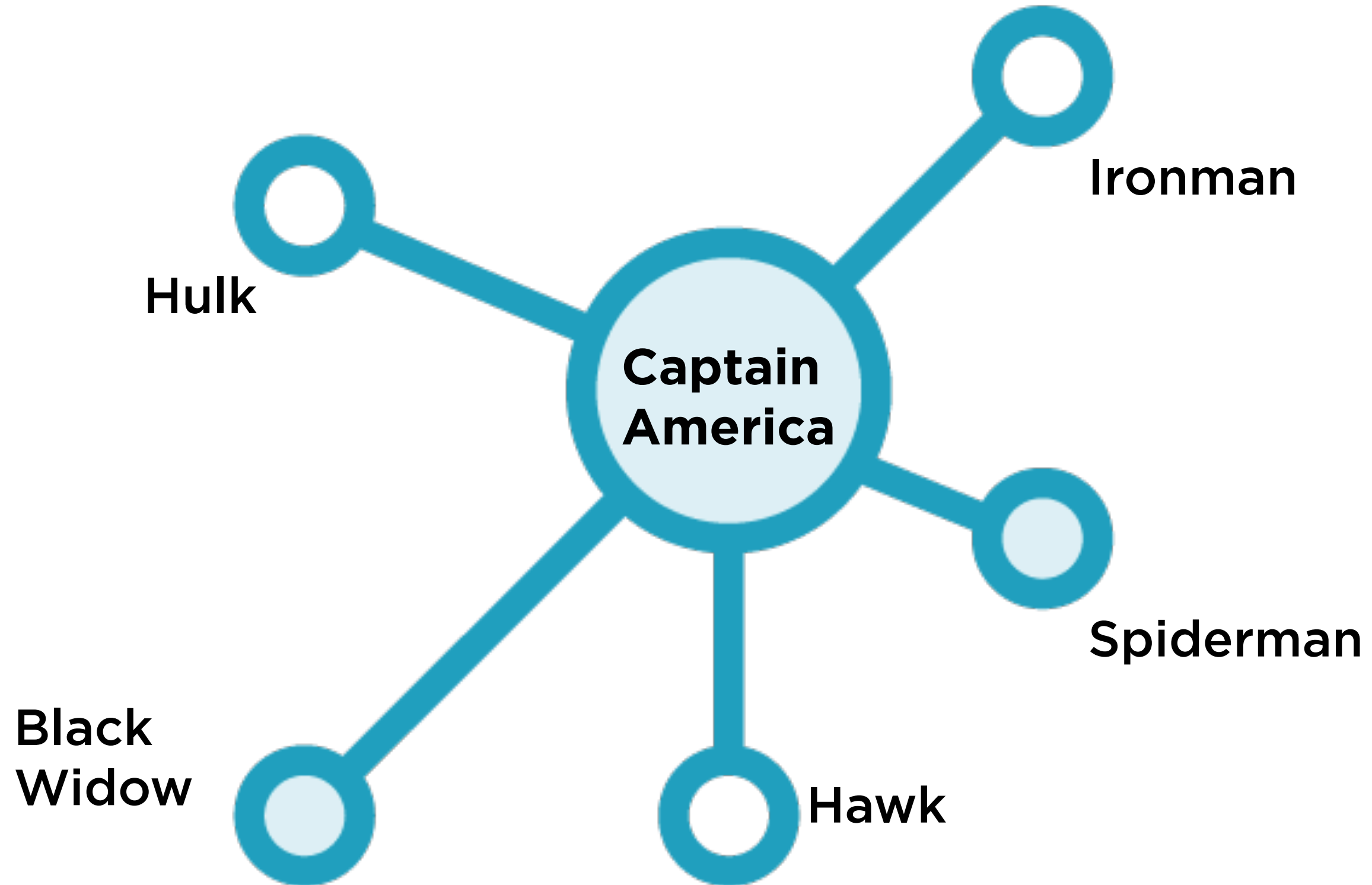
Build a Co-occurrence network from the given data

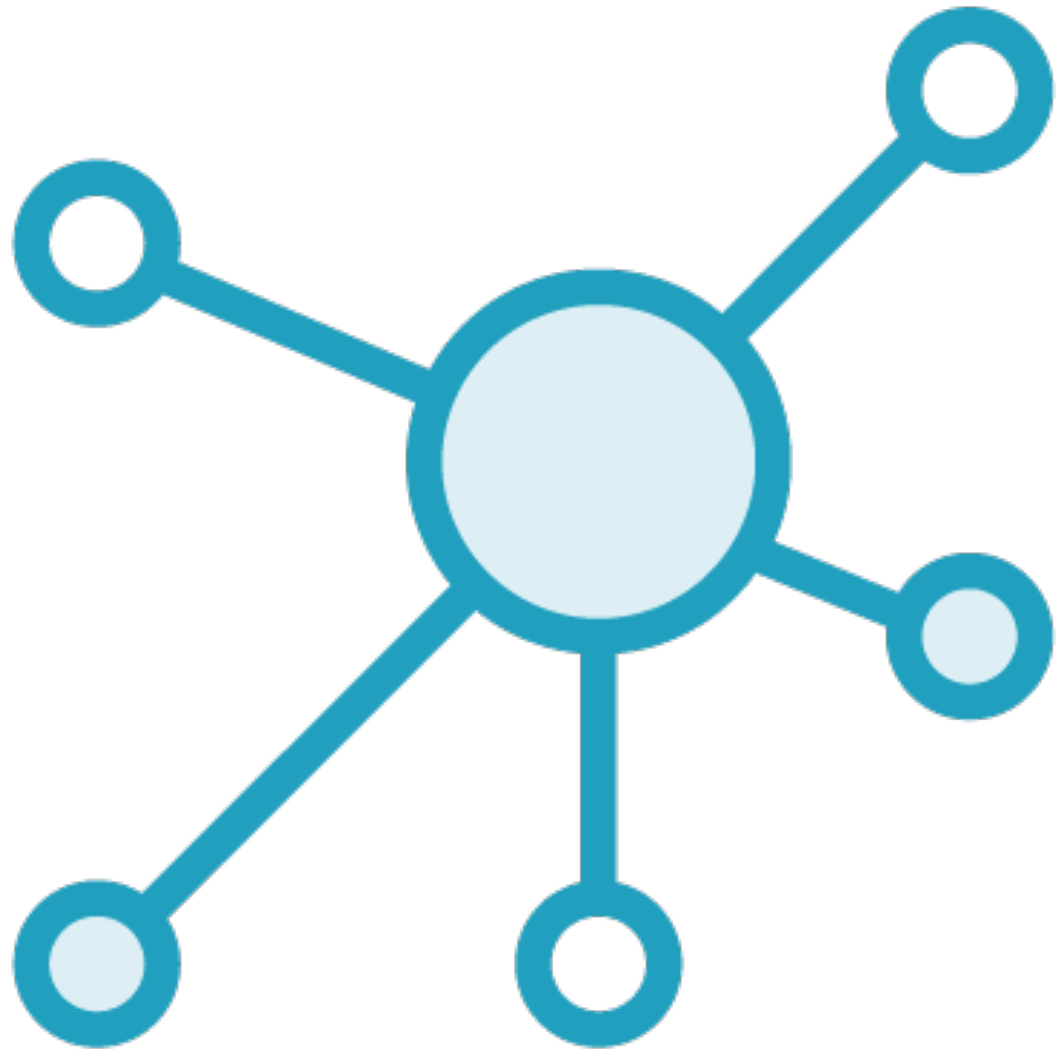
Find the most important cliques

Marvel Social Universe



Marvel Social Universe



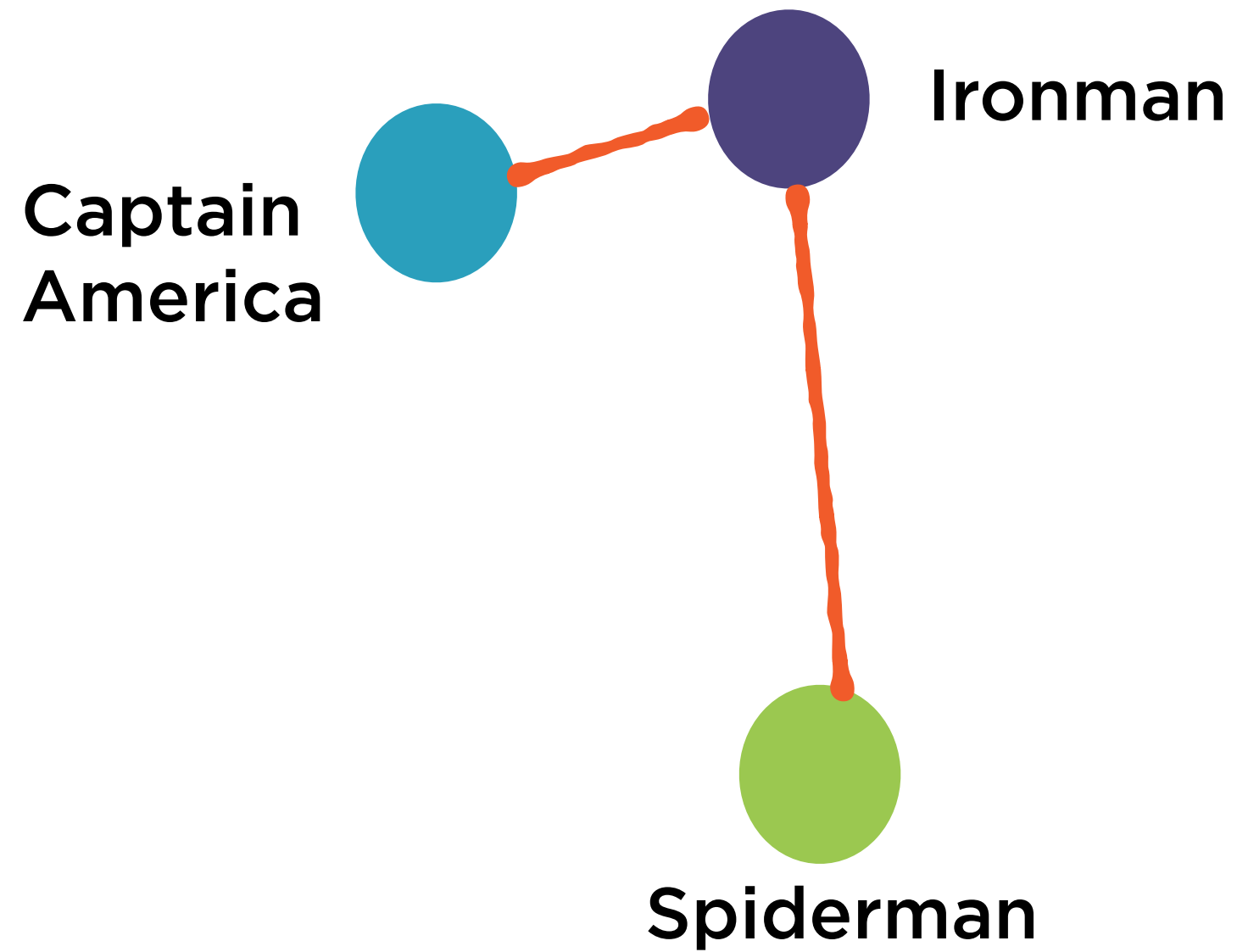


Webpages

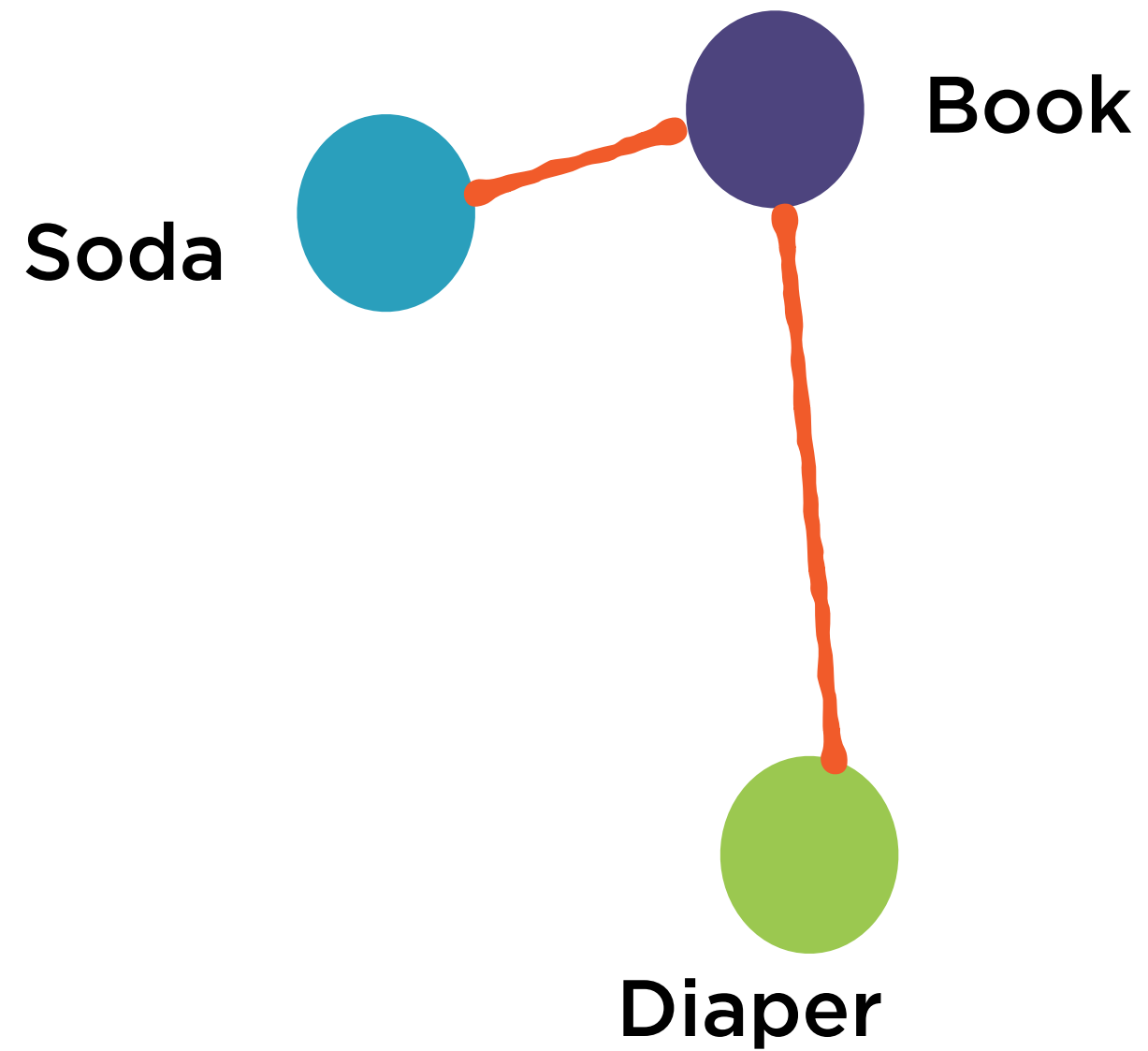
Members of a social network

Articles/Documents/Text

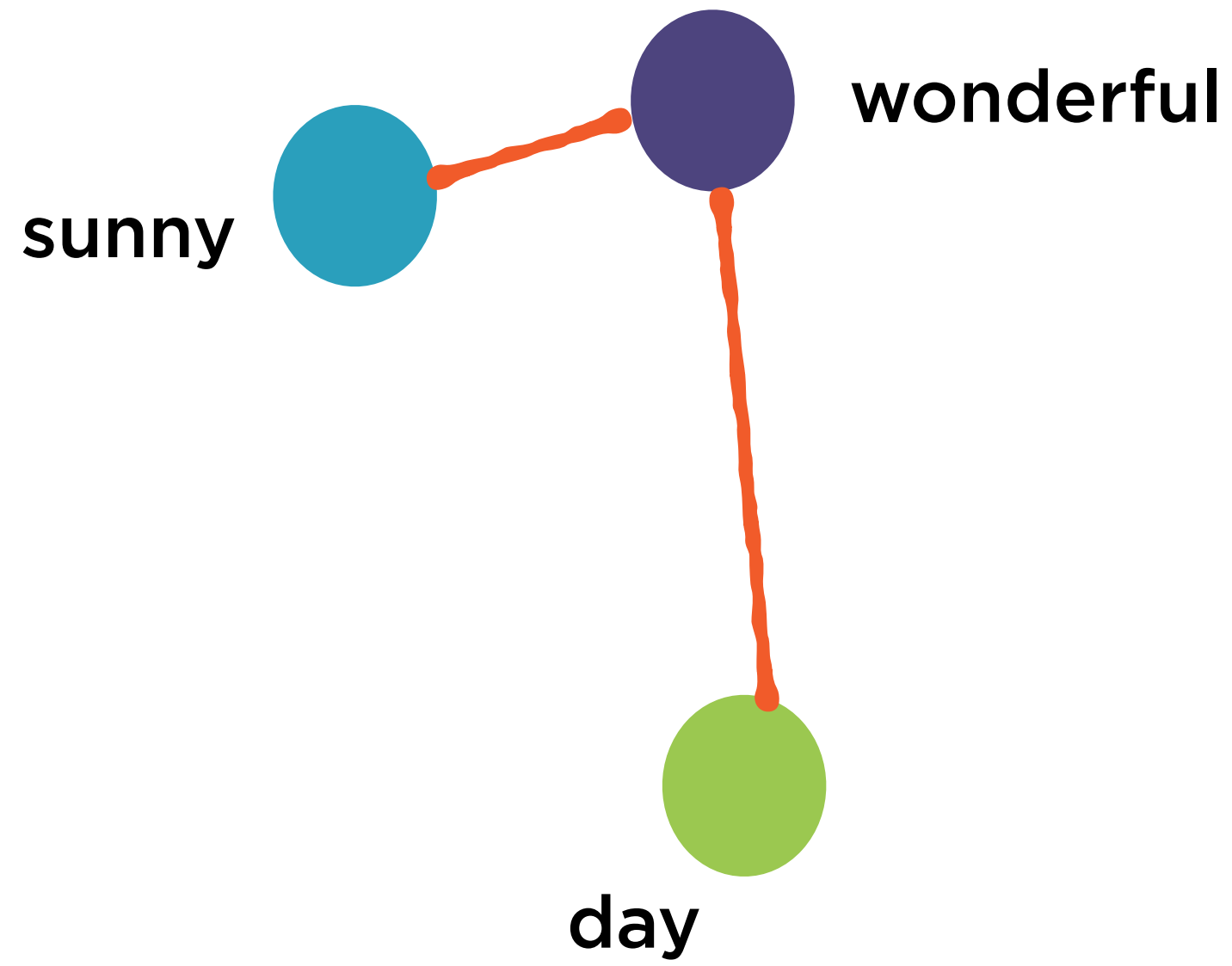
Co-occurrence Network



Co-occurrence Network



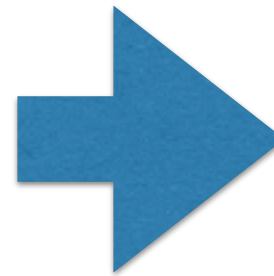
Co-occurrence Network



Building a Co-occurrence Network

characterBookMap

Character	List of Books		
1	6500	4357	
2	3456	7890	4200
3	4357	5670	6500
4	4357		

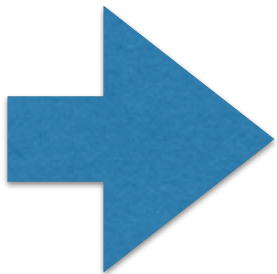


Character 1	Character 2	#Times
1	3	13
2	4	14
3	6	15
4	5	10

Step 1

characterBookMap

Character	List of Books		
1	6500	4357	
2	3456	7890	4200
3	4357	5670	6500
4	4357		



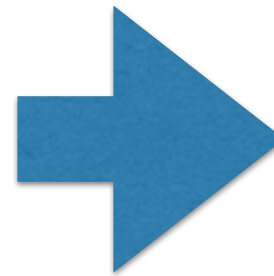
bookCharacterMap

Book	List of Characters		
4357	1	3	4
6500	1	3	
7890	2		
5670	3		

Step 2

bookCharacterMap

Book	List of Characters		
4357	1	3	4
6500	1	3	
7890	2		
5670	3		

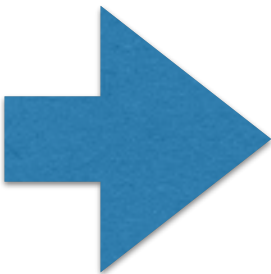


Character 1	Character 2
1	3
3	4
1	4

Step 2

bookCharacterMap

Book	List of Characters		
4357	1	3	4
6500	1	3	
7890	2		
5670	3		

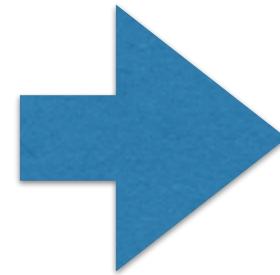


Character 1	Character 2
1	3
3	4
1	4
1	3

Step 3

cooccurrenceNetwork

Character 1	Character 2
1	3
3	4
1	4
1	3

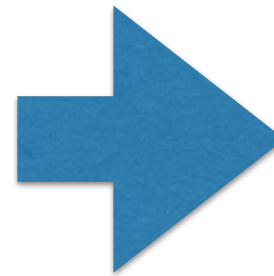


Character 1	Character 2	#Times
1	3	13
2	4	14
3	4	15
4	5	10

flatMapValues

characterBookMap

Character	List of Books		
1	6500	4357	
2	3456	7890	4200
3	4357	5670	6500
4	4357		

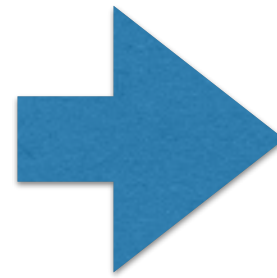


Character	Book
1	6500
1	4357

flatMapValues

characterBookMap

Character	List of Books		
1	6500	4357	
2	3456	7890	4200
3	4357	5670	6500
4	4357		



Character	Book
1	6500
1	4357
2	3456
2	7890
2	6500

Demo

Find the most influential characters

Demo

Build a co-occurrence network

Demo

Find the most important relationships

Summary

Find the most influential characters

Build a Co-occurrence network from the given data

Find the most important cliques