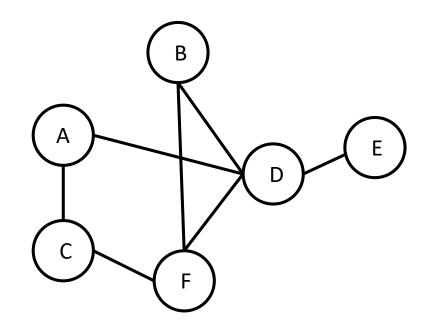
Sustentación Proyecto Final FADA

Daniel Barrera Devia

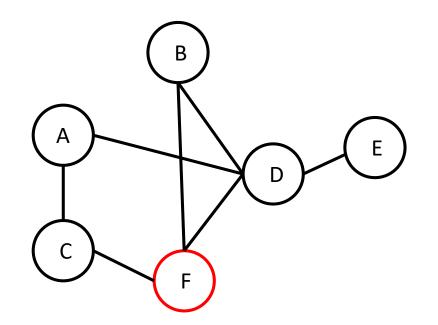


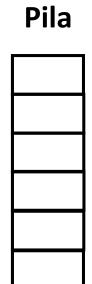




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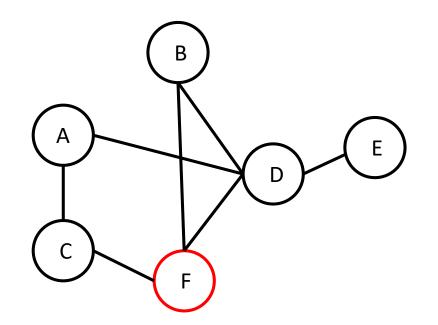






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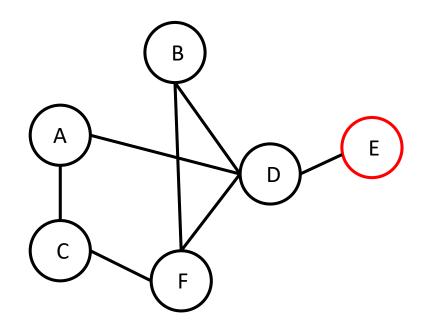


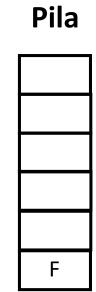




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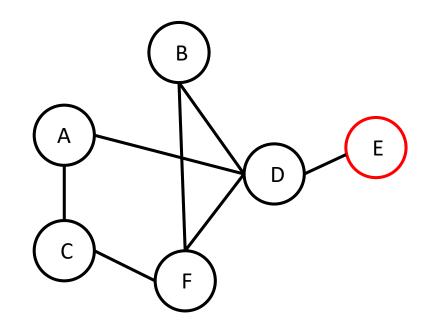






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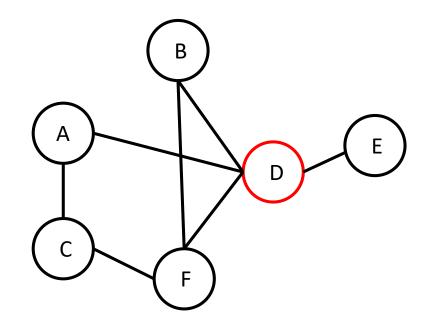


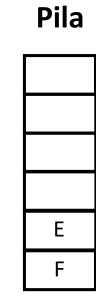




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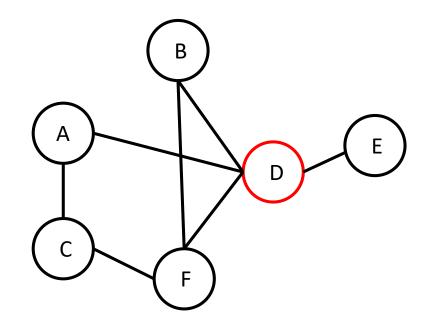


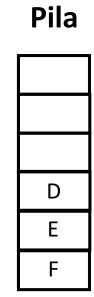




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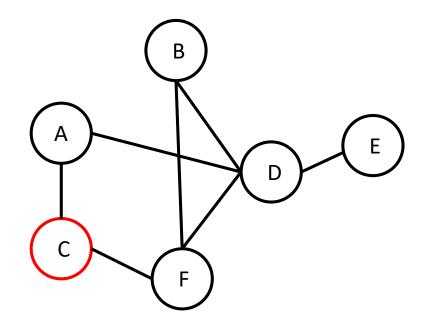


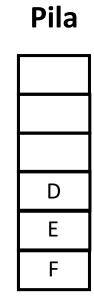




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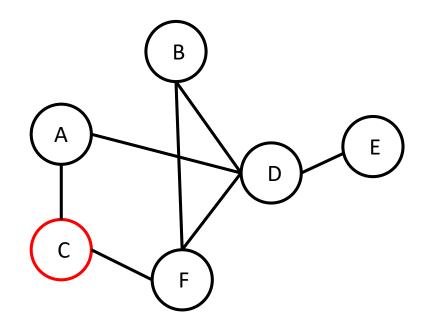


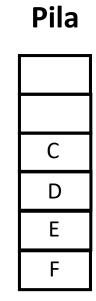




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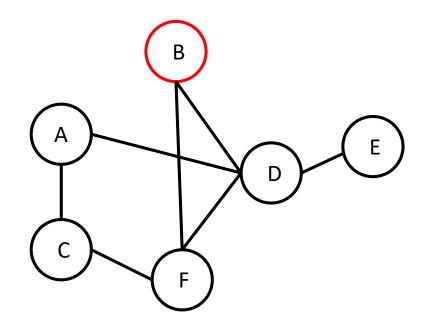


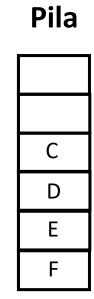




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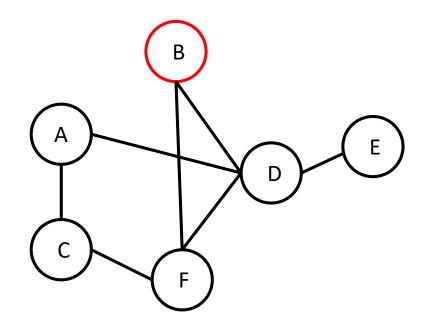


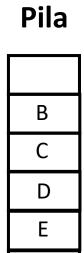




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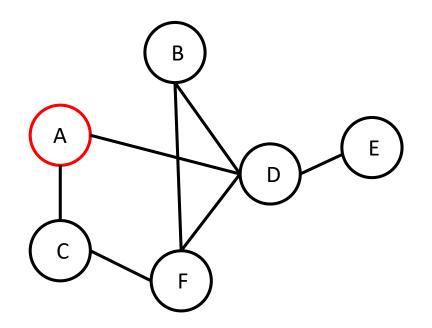


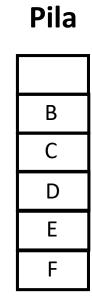




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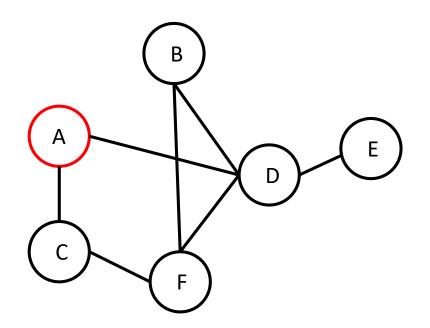




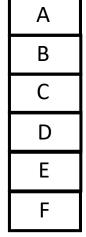


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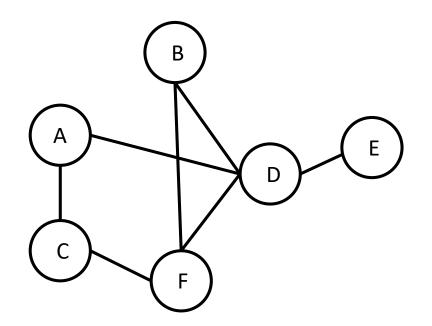




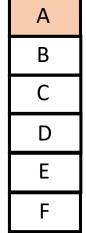


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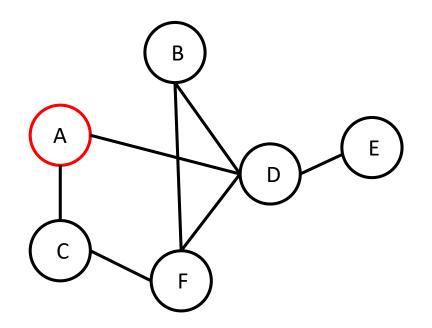




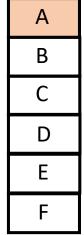


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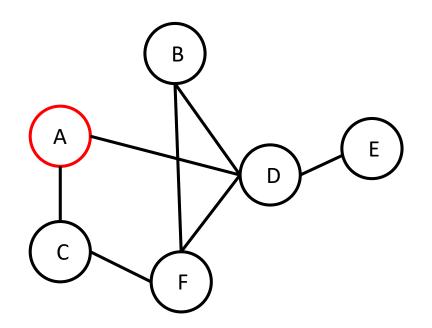




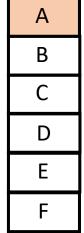


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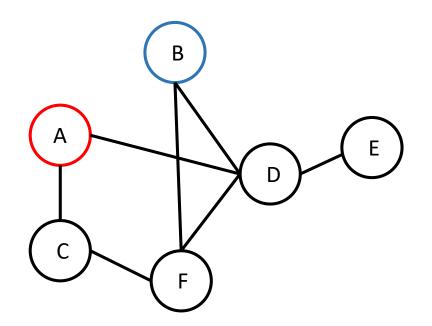




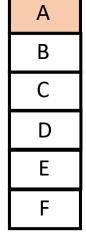


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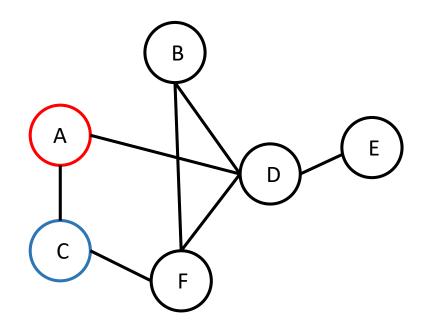




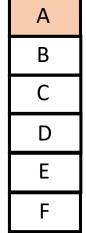


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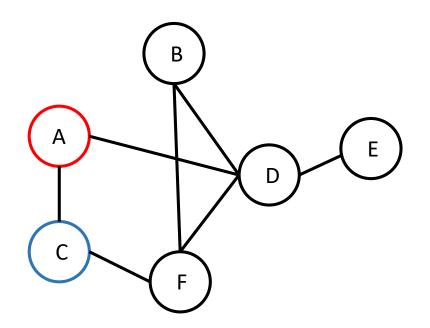




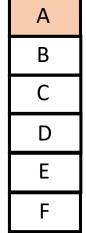


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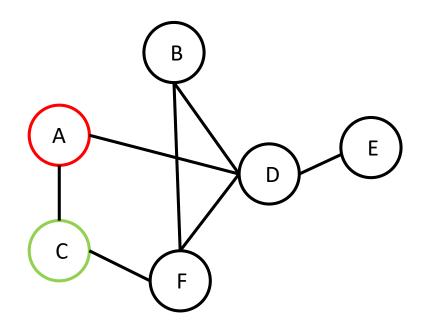




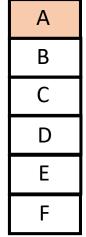


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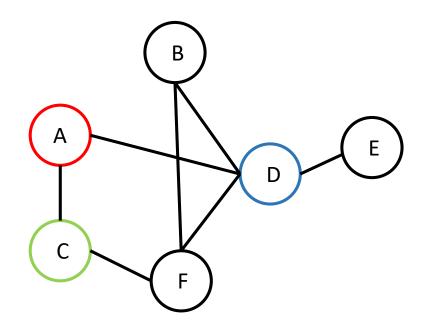




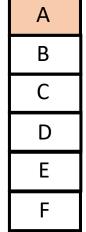


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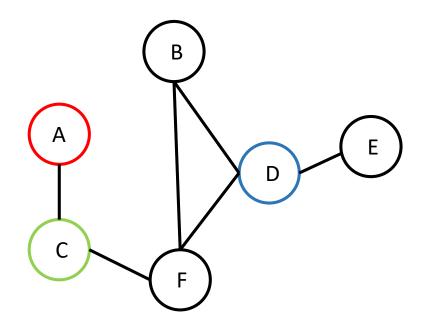




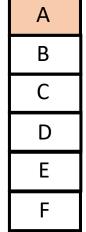


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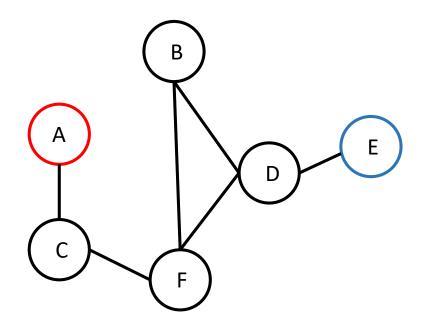




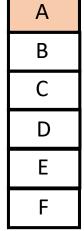


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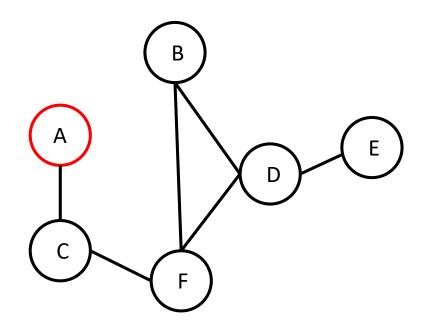




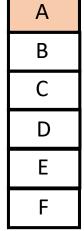


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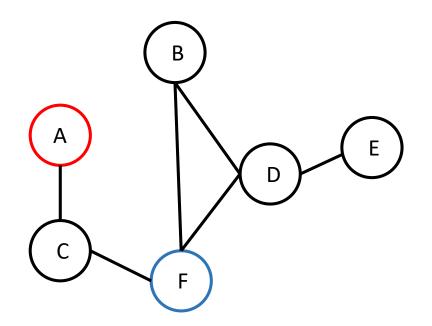




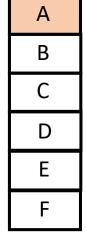


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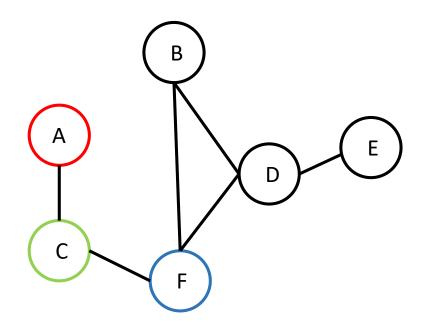




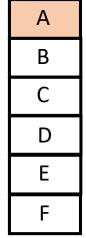


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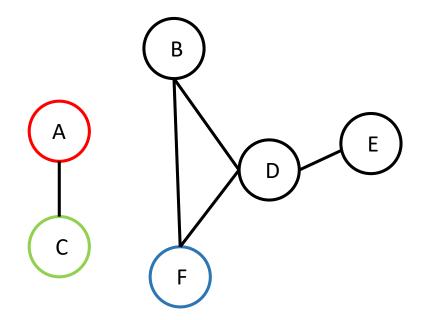




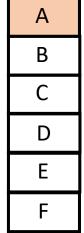


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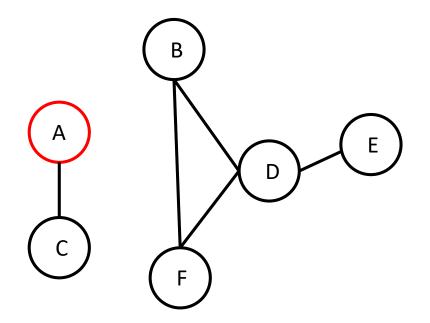


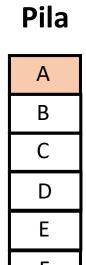




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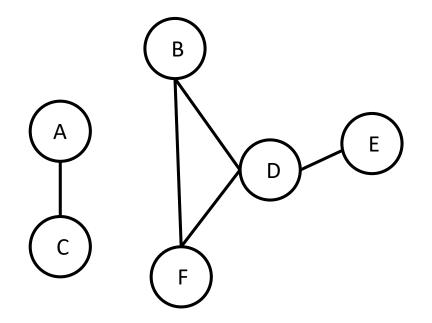


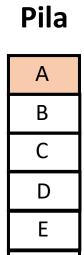




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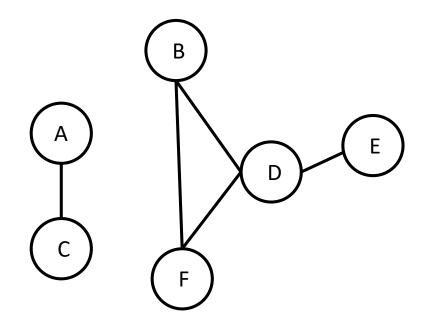




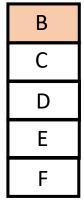


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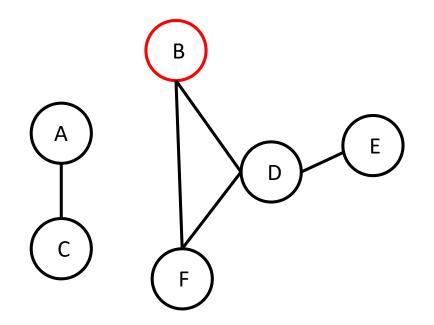




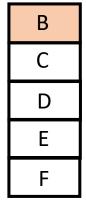


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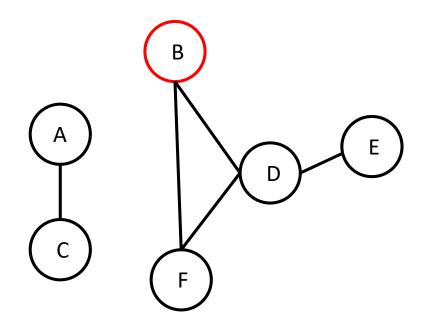




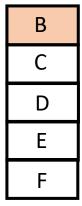


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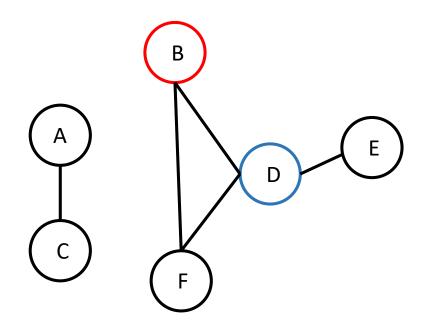




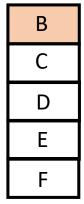


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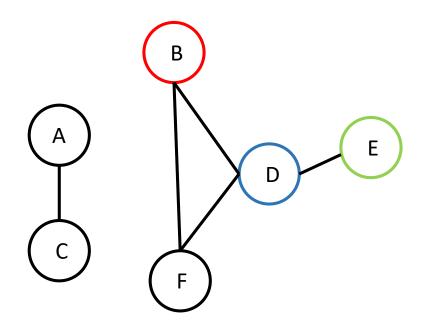




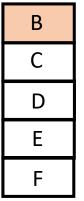


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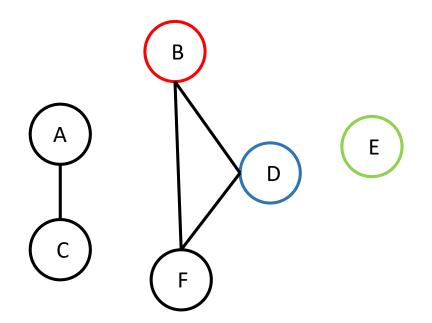




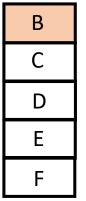


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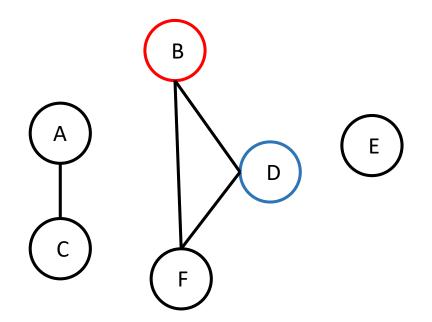




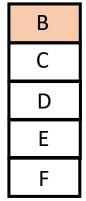


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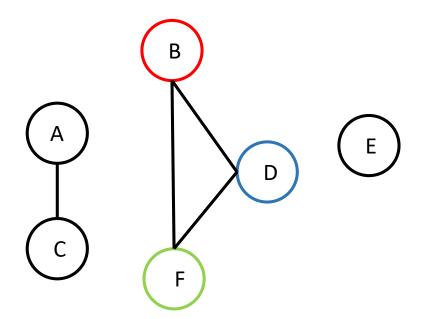




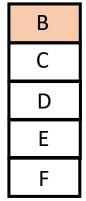


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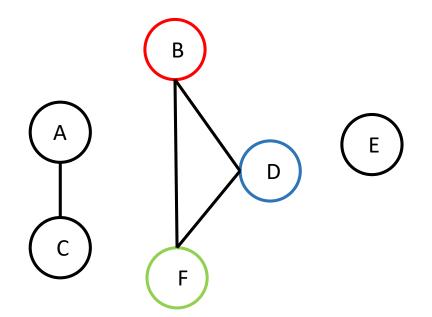




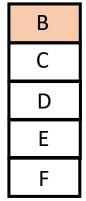


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0	0	0	0	0	0



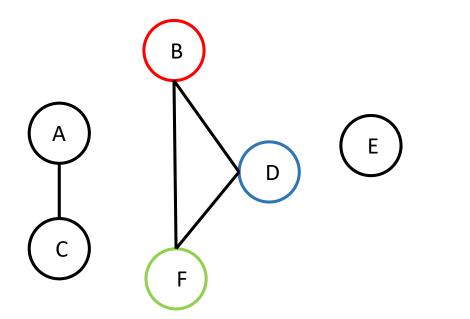




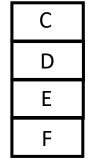


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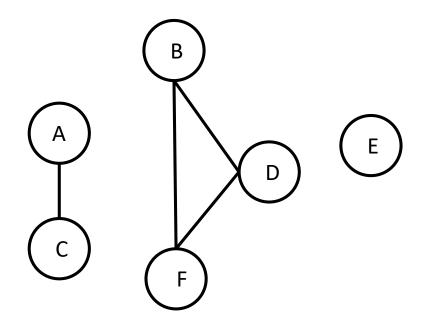




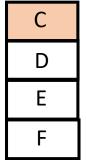


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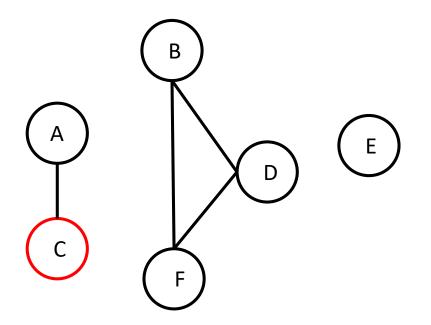




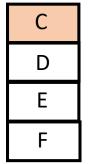


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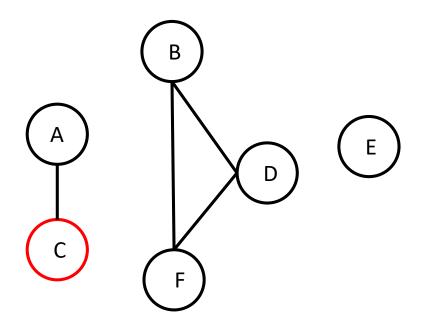




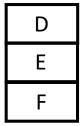


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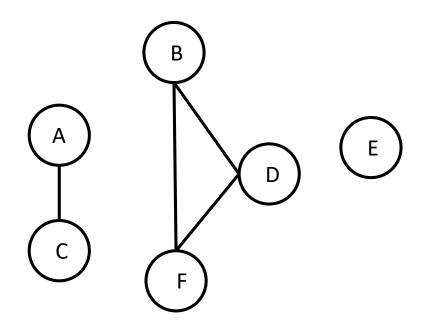




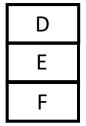


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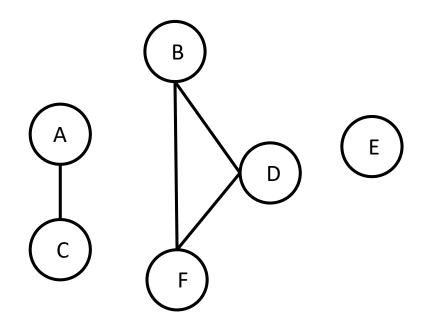




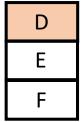


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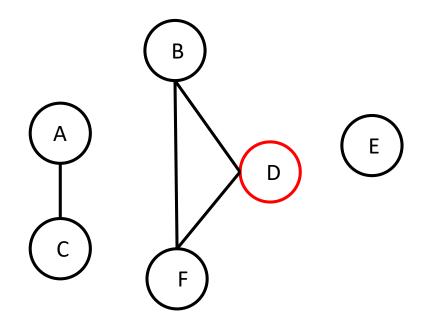




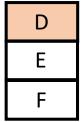


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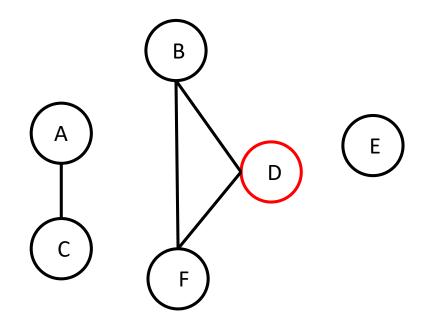






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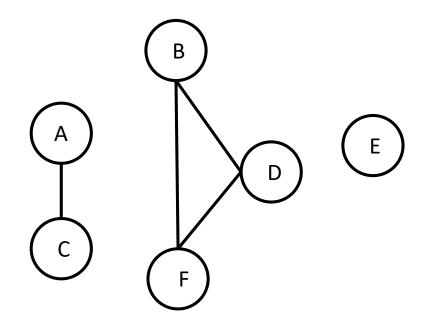






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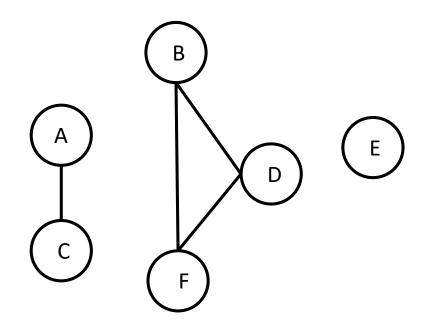






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0	1	0	1	0	1
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0	0	0	0	0	0
0	0	0	0	0	0



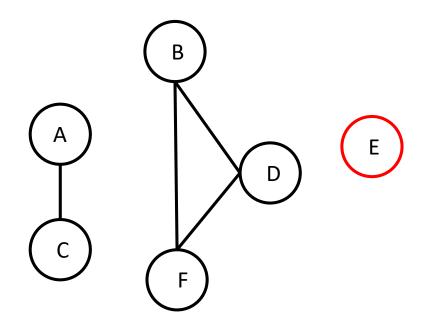






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0	1	0	1	0	1
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0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0



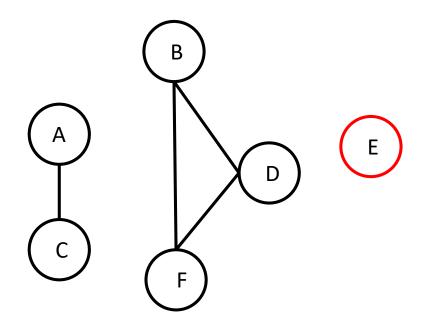






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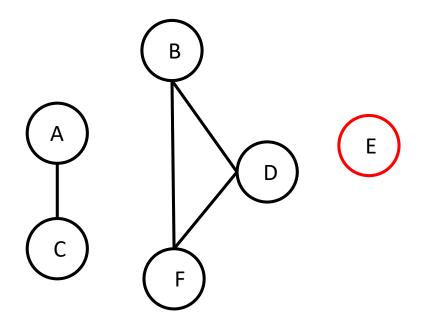






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0	1	0	1	0	1
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0	0	0	0	0	0



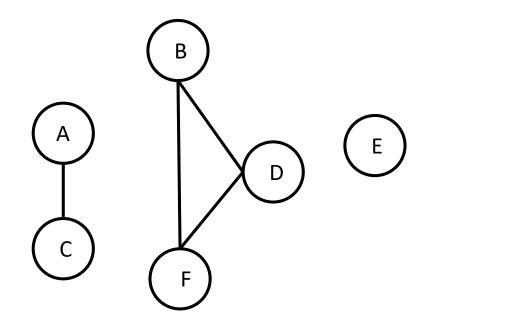






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0	0	0	0	0	0



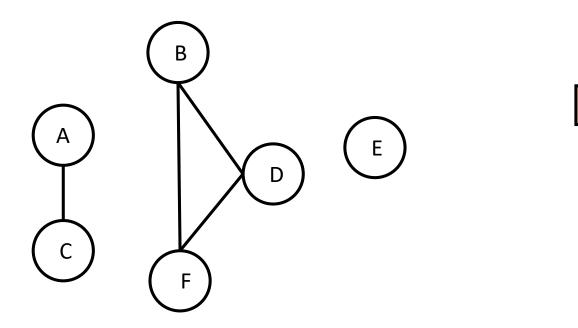


Pila

F

1	0	1	0	0	0
0	1	0	1	0	1
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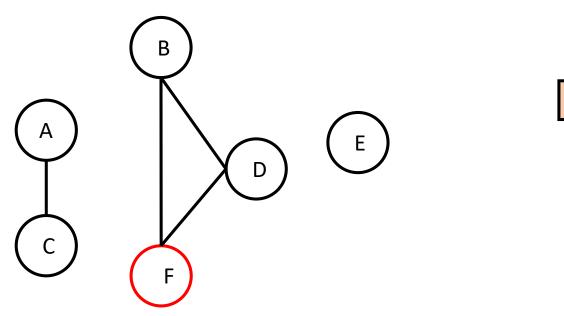






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0	0	0	0	0	0



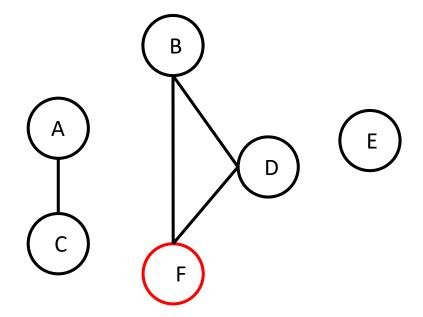


Pila

F

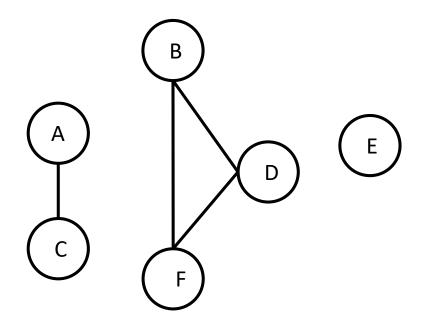
1	0	1	0	0	0
0	1	0	1	0	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	0
0	0	0	0	0	0





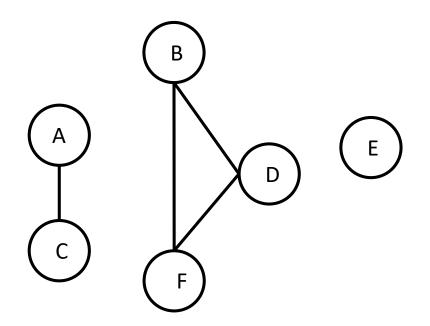
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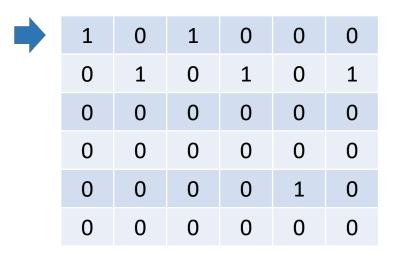




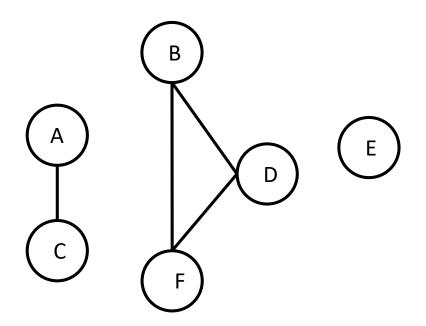
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0	1	0	1	0	1
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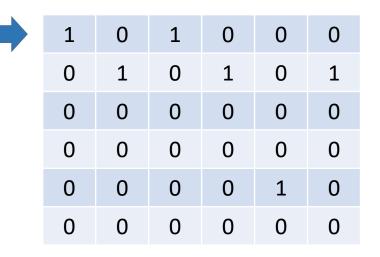






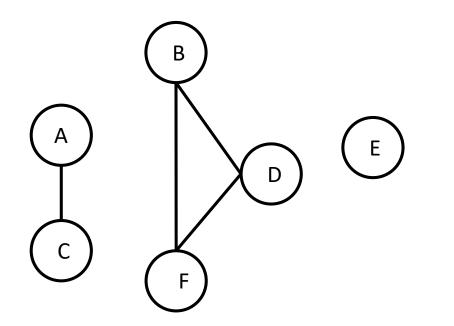


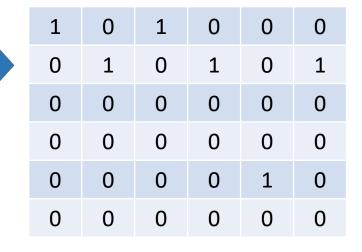




Villas = 1

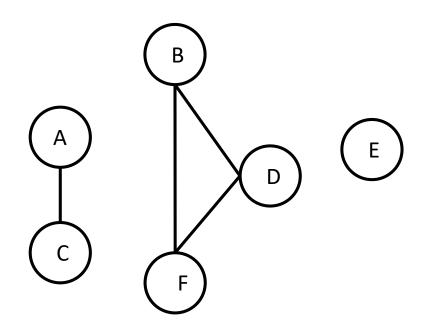


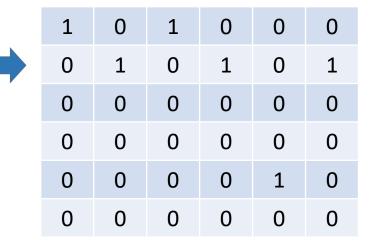




Villas = 1

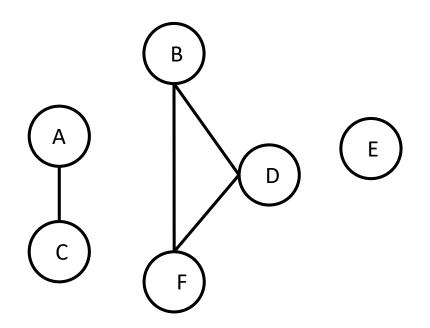




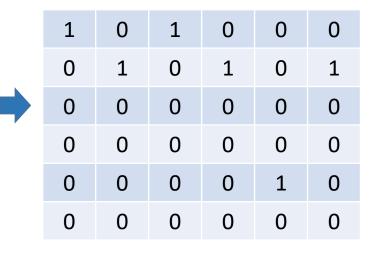


Villas = 2

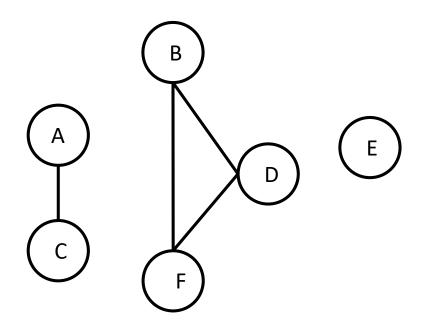




Matriz Auxiliar



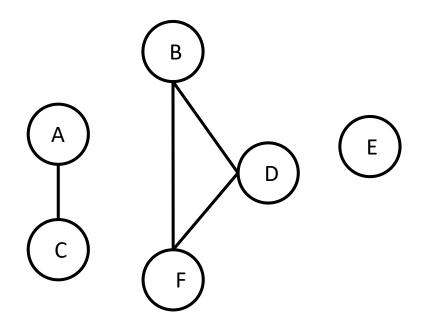




Matriz Auxiliar

1	0	1	0	0	0
0	1	0	1	0	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	0
0	0	0	0	0	0

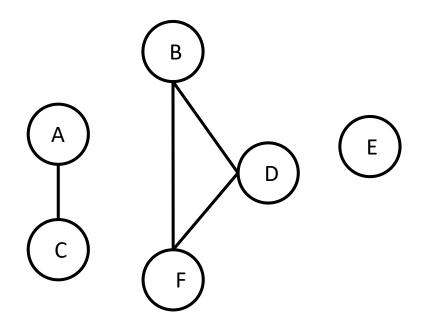




Matriz Auxiliar

1	0	1	0	0	0
0	1	0	1	0	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	0
0	0	0	0	0	0

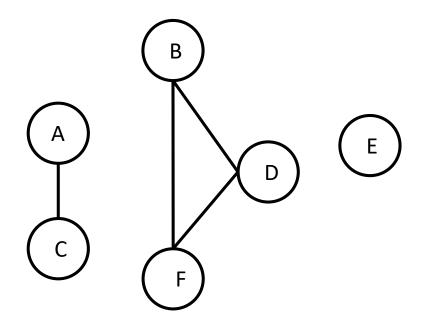




Matriz Auxiliar

1	0	1	0	0	0
0	1	0	1	0	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	0
0	0	0	0	0	0

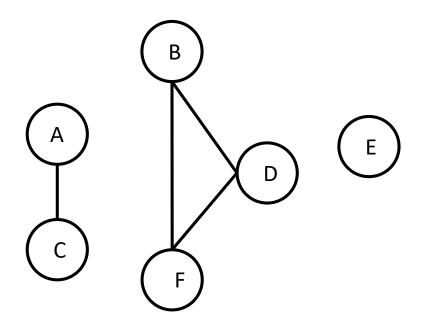




Matriz Auxiliar

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0	1	0	1	0	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	0
0	0	0	0	0	0





1	0	1	0	0	0
0	1	0	1	0	1
0	0	0	0	1	0

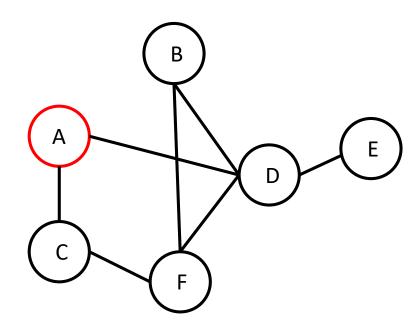
Villas = 3



¿Su complejidad?

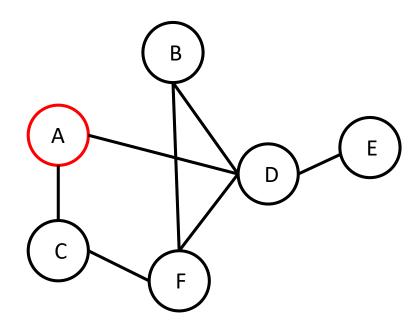
En el peor caso la complejidad será O(n^3), debido a que se usan 3 ciclos anidados, pero como los ciclos interiores no inician desde 0, sino que por cada iteración externa se hará una iteración menos de manera interna, el costo tiende a ser mucho menor que el anterior, puede haber un punto determinado en que el algoritmo tendrá complejidad O(n^2), en el caso en que ya todas las selecciones habrán sido ubicadas.





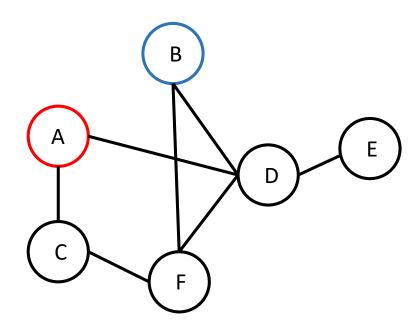
1	2	3	4	5	6





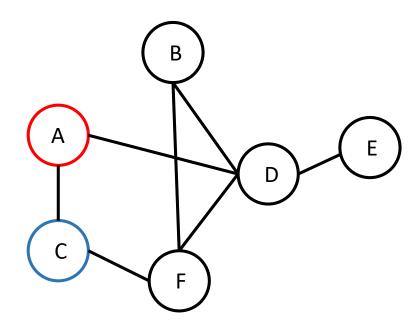
1	2	3	4	5	6
А					





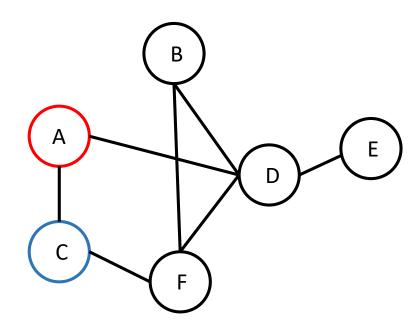
1	2	3	4	5	6
А					





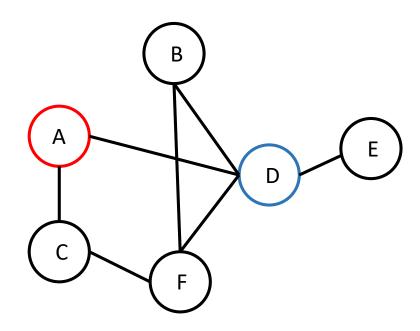
1	2	3	4	5	6
А					





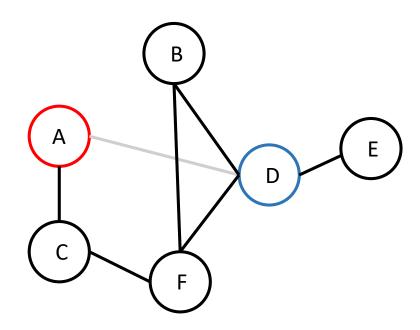
1	2	3	4	5	6
А					
С					





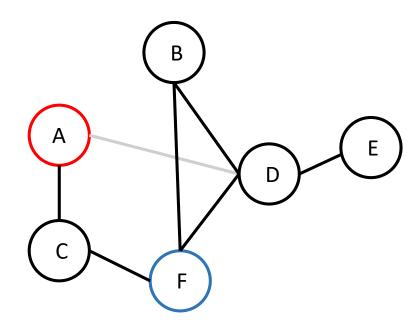
1	2	3	4	5	6
А					
С					





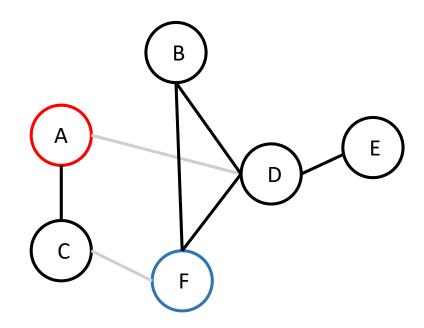
1	2	3	4	5	6
Α					
С					





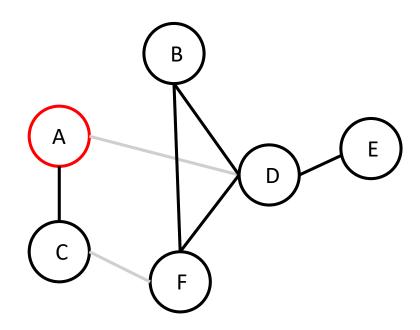
1	2	3	4	5	6
А					
С					





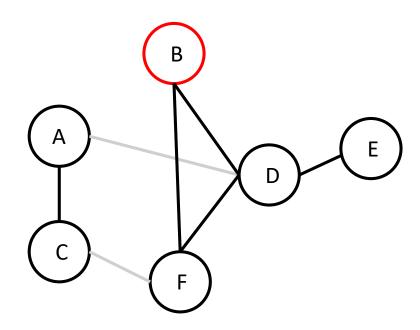
1	2	3	4	5	6
Α					
С					





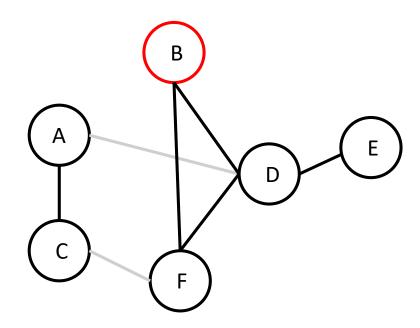
1	2	3	4	5	6
Α					
С					





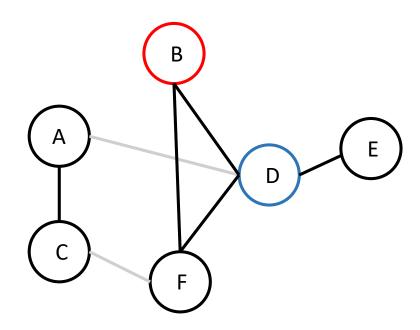
1	2	3	4	5	6
Α					
С					





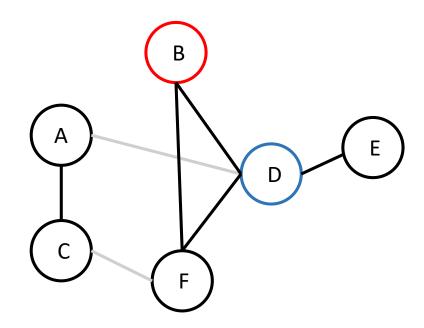
1	2	3	4	5	6
А	В				
С					





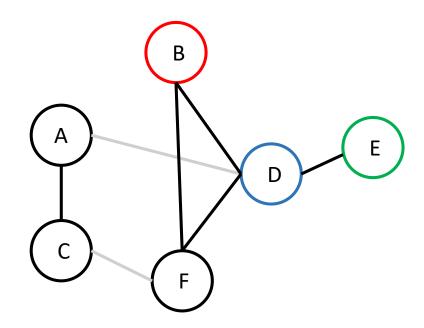
1	2	3	4	5	6
Α	В				
С					





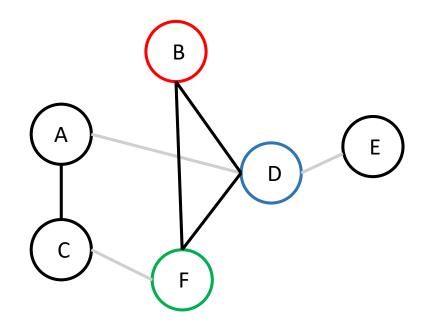
1	2	3	4	5	6
Α	В				
С	D				





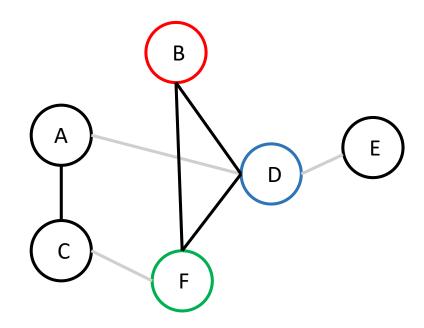
1	2	3	4	5	6
Α	В				
С	D				





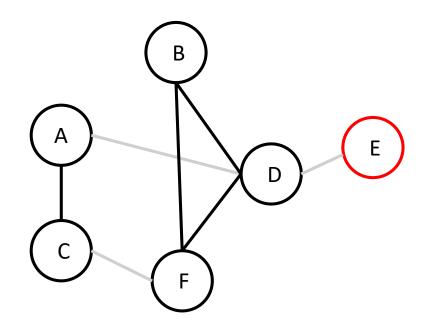
1	2	3	4	5	6
Α	В				
С	D				





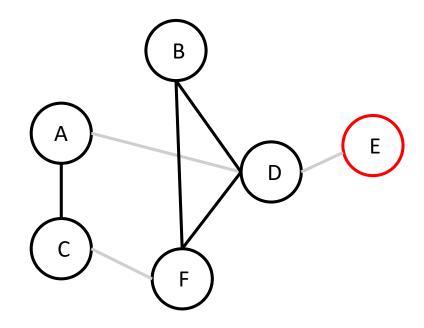
1	2	3	4	5	6
Α	В				
С	D				
	F				





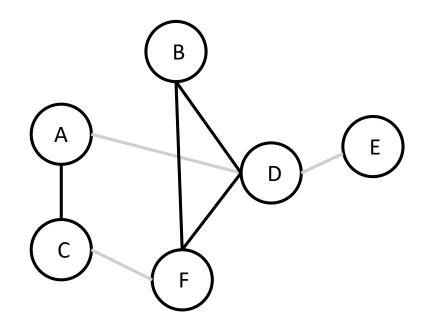
1	2	3	4	5	6
А	В				
С	D				
	F				





1	2	3	4	5	6
А	В	E			
С	D				
	F				





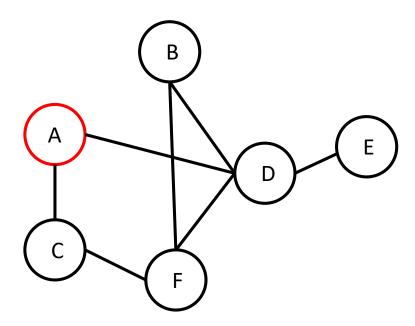
1	2	3
А	В	Е
С	D	
	F	



¿Su complejidad?

Su complejidad será $O(n^3)$, porque recorrer la matriz requiere un costo de $O(n^2)$, al evaluar las relaciones que tiene mi candidato a la solución, ese recorrido me va generar un costo computacional de n, al ser un ciclo anidado, este se multiplica con el costo anterior, para finalmente dar $O(n^3)$.



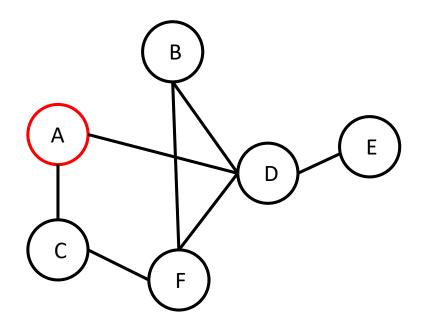


Arreglo N Posiciones

Α	В	С	D	E	F
0	0	0	0	0	0





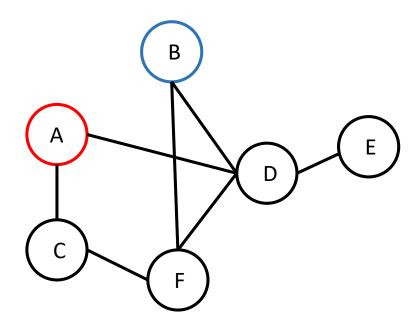


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0





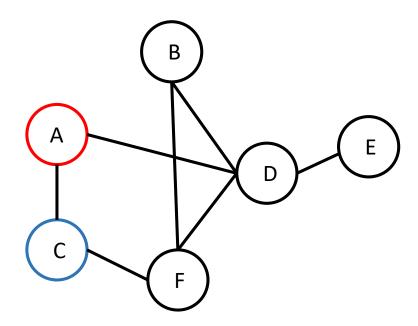


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0





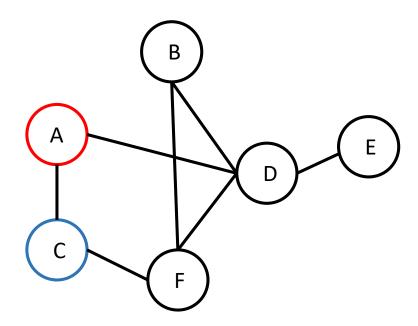


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0

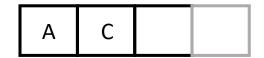




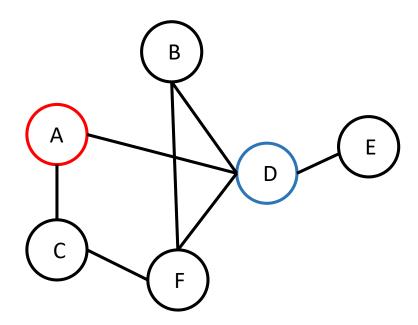


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0





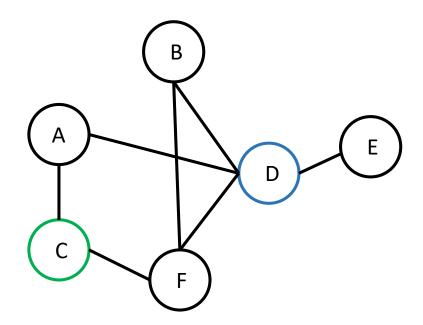


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0

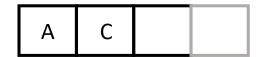




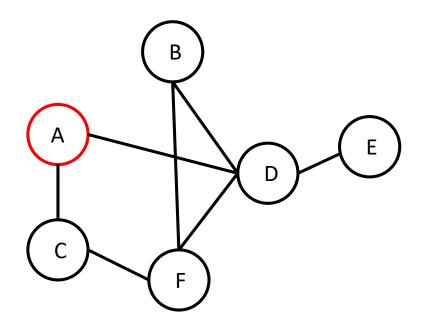


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0

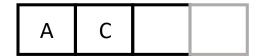




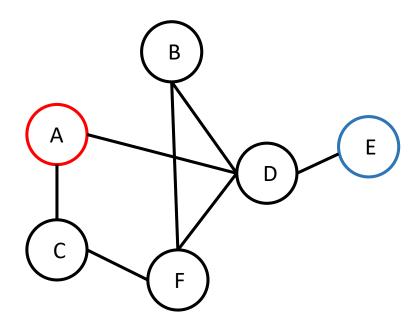


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0

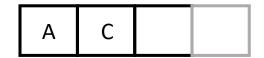




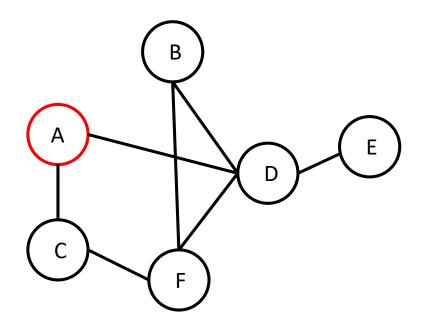


Arreglo N Posiciones

Α	В	С	D	E	F
0	0	0	0	0	0

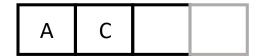




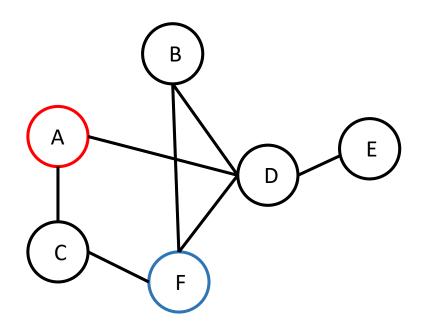


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0





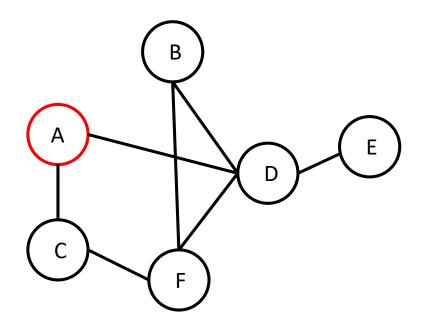


Arreglo N Posiciones

A	В	С	D	E	F
0	0	0	0	0	0

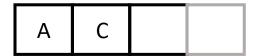




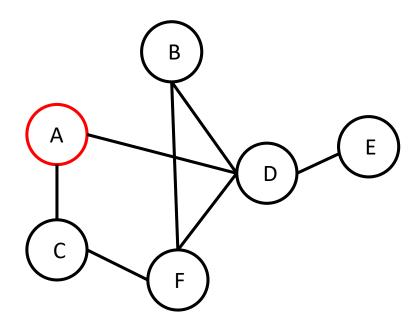


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





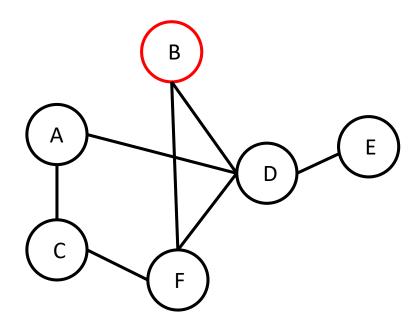


Arreglo N Posiciones

A	В	С	D	E	F
1	0	1	0	0	0





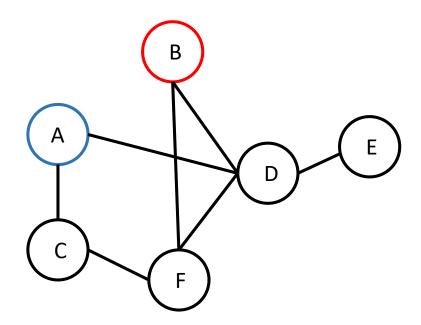


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





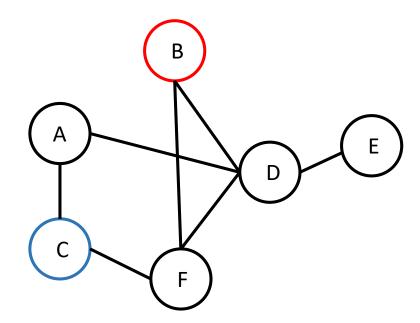


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





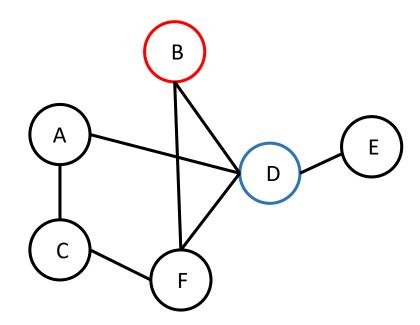


Arreglo N Posiciones

A	В	С	D	E	F
1	0	1	0	0	0





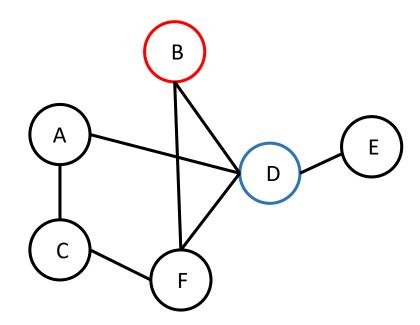


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





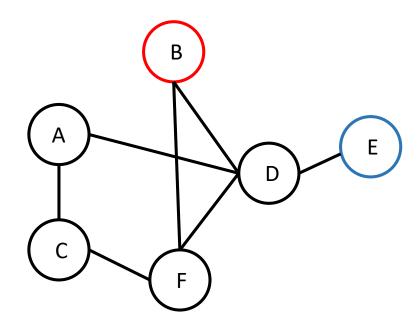


Arreglo N Posiciones

A	В	С	D	E	F
1	0	1	0	0	0

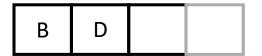




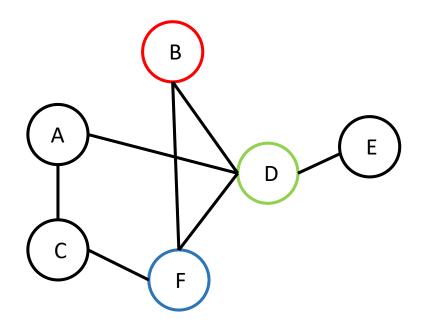


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





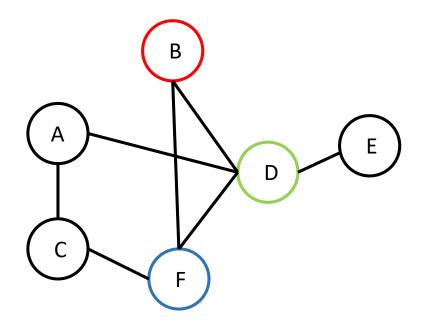


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





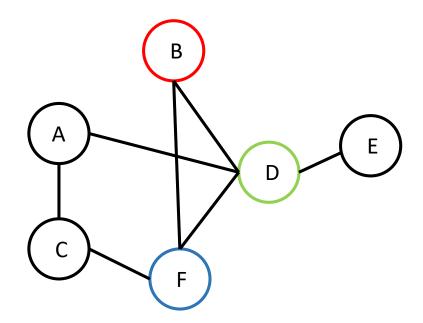


Arreglo N Posiciones

Α	В	С	D	E	F
1	0	1	0	0	0





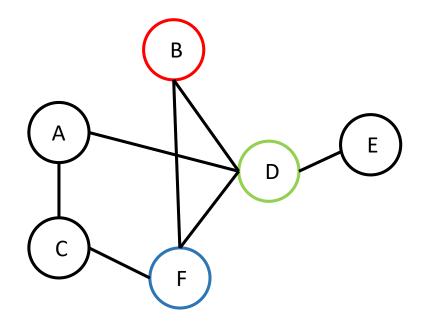


Arreglo N Posiciones

A	В	С	D	E	F
1	2	1	2	0	2





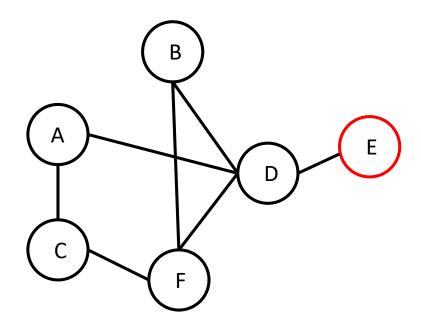


Arreglo N Posiciones

A	В	С	D	E	F
1	2	1	2	0	2





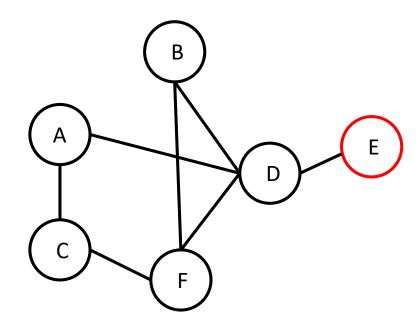


Arreglo N Posiciones

A	В	С	D	E	F
1	2	1	2	0	2





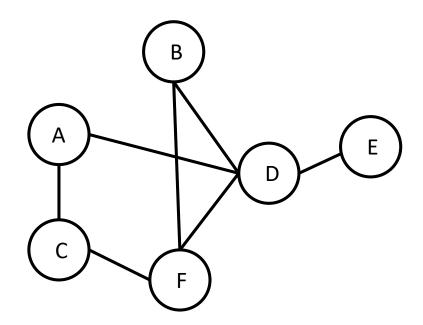


Arreglo N Posiciones

A	В	С	D	E	F
1	2	1	2	3	2





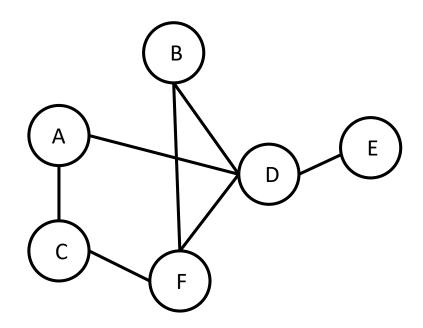


Arreglo N Posiciones

A	В	С	D	Е	F
1	2	1	2	3	2







Arreglo N Posiciones

A	В	С	D	Е	F
1	2	1	2	3	2

Villa1	Villa 2	Villa 3
Α	В	Е
С	D	
	F	



¿Su complejidad?

Su complejidad será O(n^2), el costo computacional al recorrer el arreglo será de n, al momento de ingresar un elemento en la memoria temporal y recorrer esa memoria para saber si puede ir o no con los demás elementos en esa memoria temporal, tendrá un costo computacional de n, al ingresar los datos de la memoria temporal al arreglo, este será lineal, porque se asignara uno a uno sin hacer comparaciones, finalmente al ser ciclos anidados tendrá complejidad O(n^2).



Muchas Gracias

