

Hierarchical Clustering

Fels Bioinformatics Meetup

2018.12.07

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Nov 25	Nov 26	Nov 27	Nov 28	Nov 29	Nov 30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	Jan 1	Jan 2	Jan 3	Jan 4	Jan 5
Jan 6	Jan 7	Jan 8	Jan 9	Jan 10	Jan 11	Jan 12

~~11.30~~ - plotting grabbag

12.07 - hierarchical clustering

12.14 - heatmaps

12.21 - NO meetup

12.28 - NO meetup, university closed

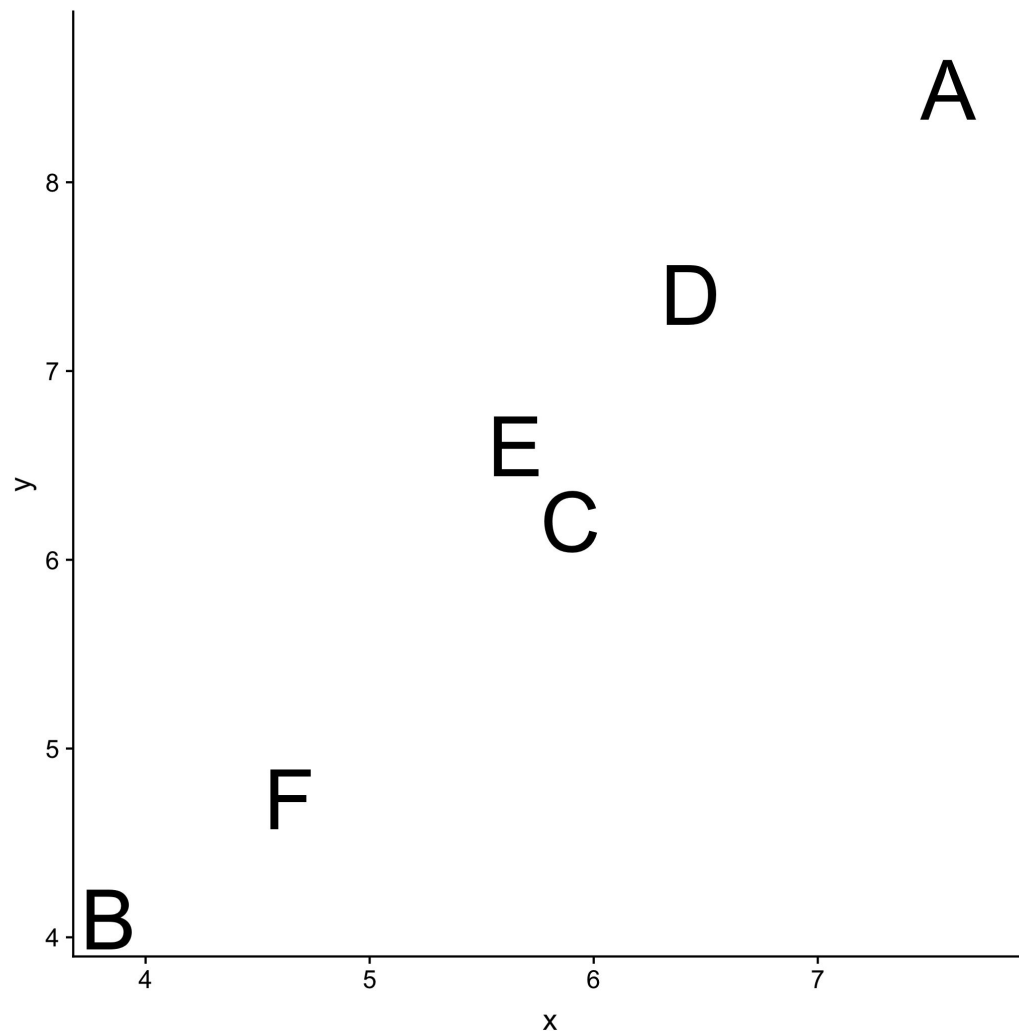
01.04 - NO meetup

01.11 - First meetup of 2019, review

How does hierarchical clustering work?

1. Calculates a measure of similarity between all points
2. Assigns each point as its own cluster
3. Joins together the most closely related points into a single cluster
4. Recalculates similarity
5. Joins together the most closely related clusters into a single cluster
6. Repeats steps 4 and 5 until everything is in one cluster and the clustering is complete

How does hierarchical clustering work?



How does hierarchical clustering work?

A

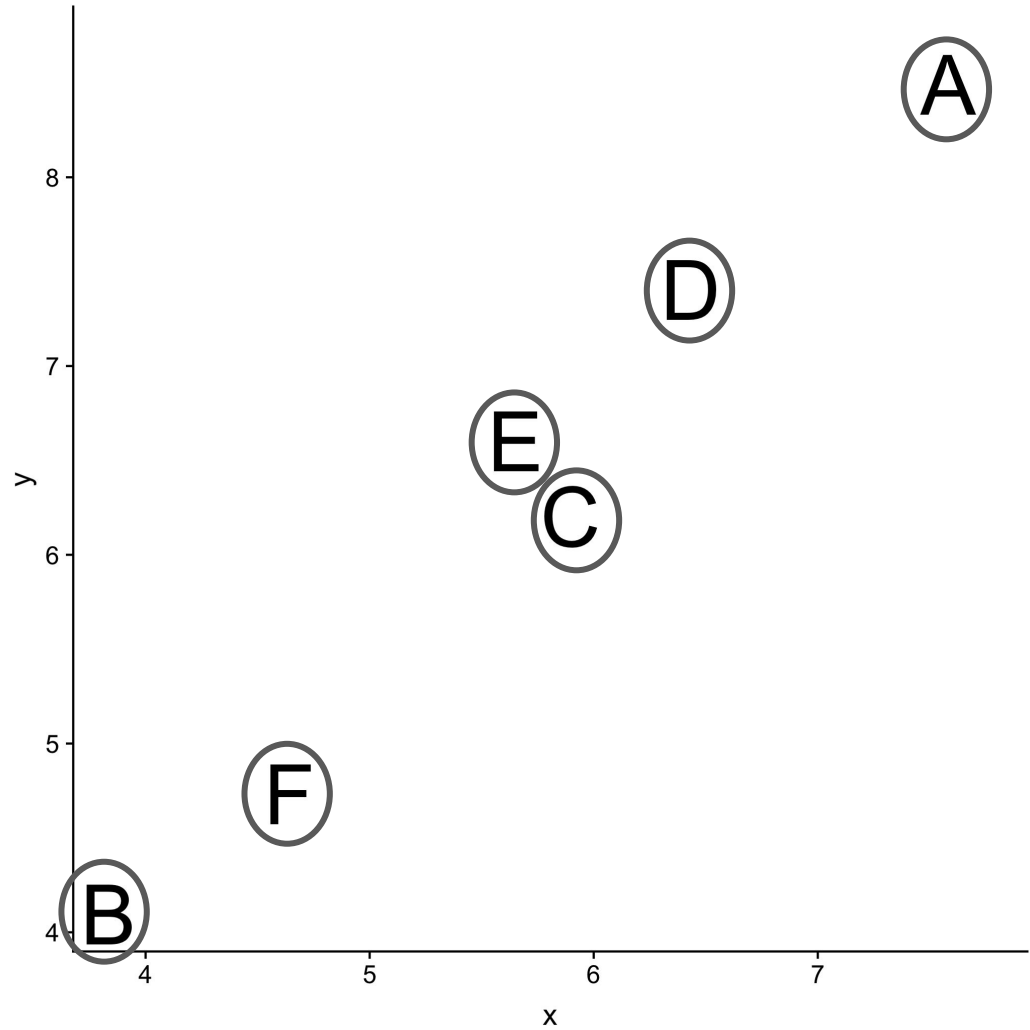
B

C

D

E

F



How does hierarchical clustering work?

C

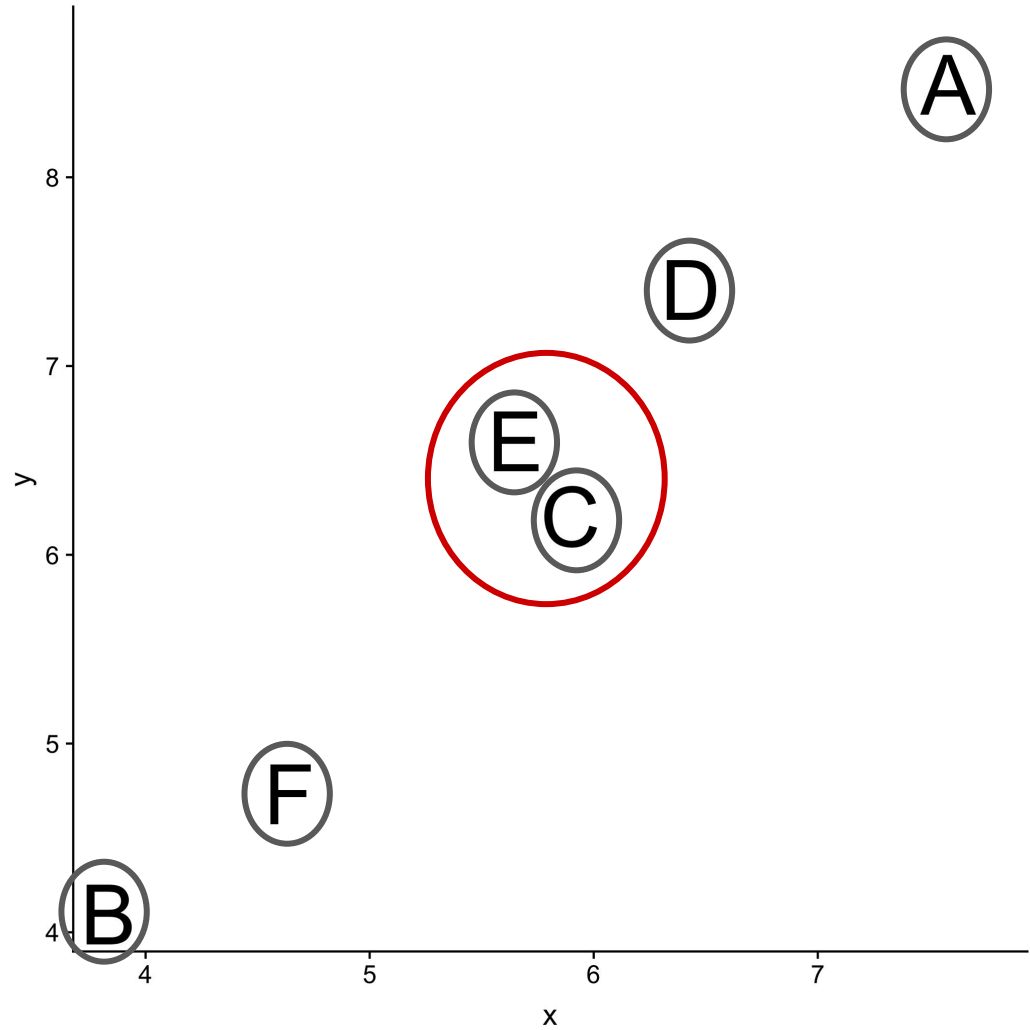
E

A

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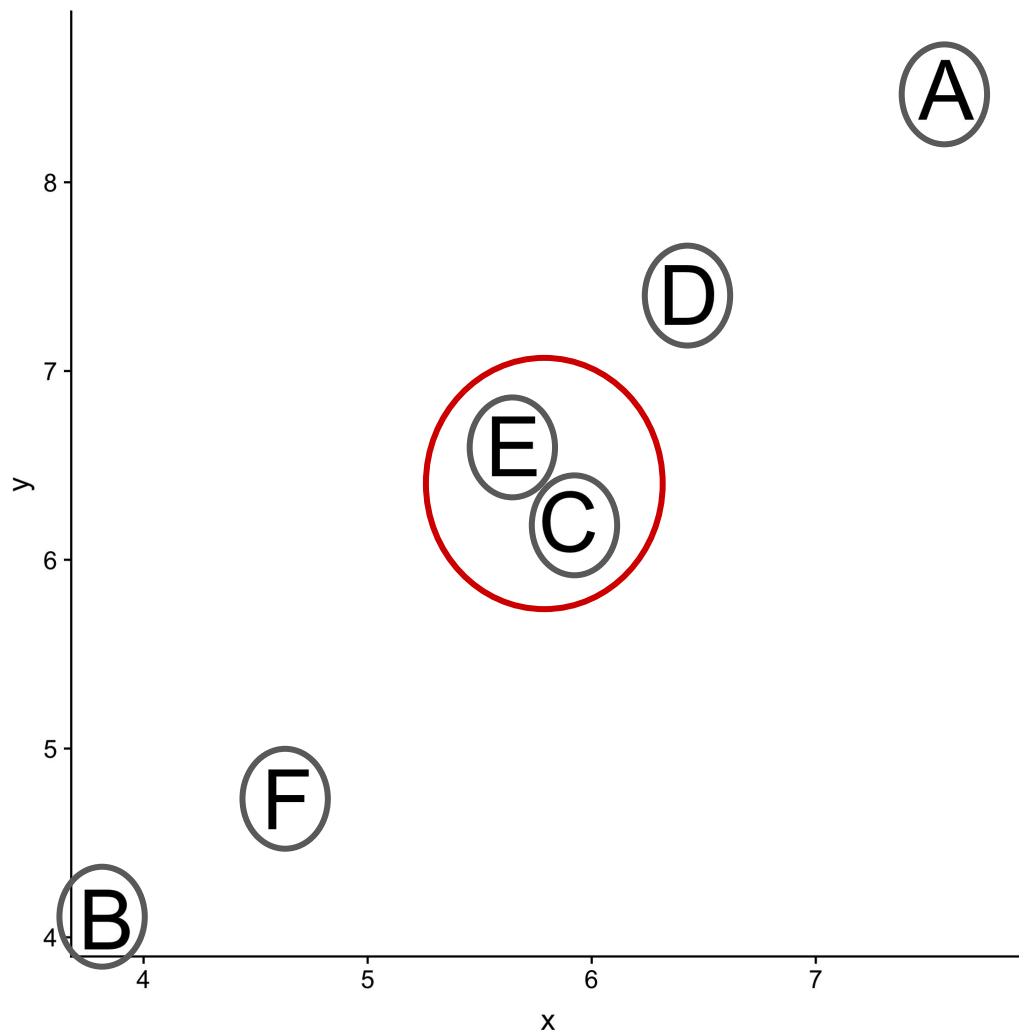
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F



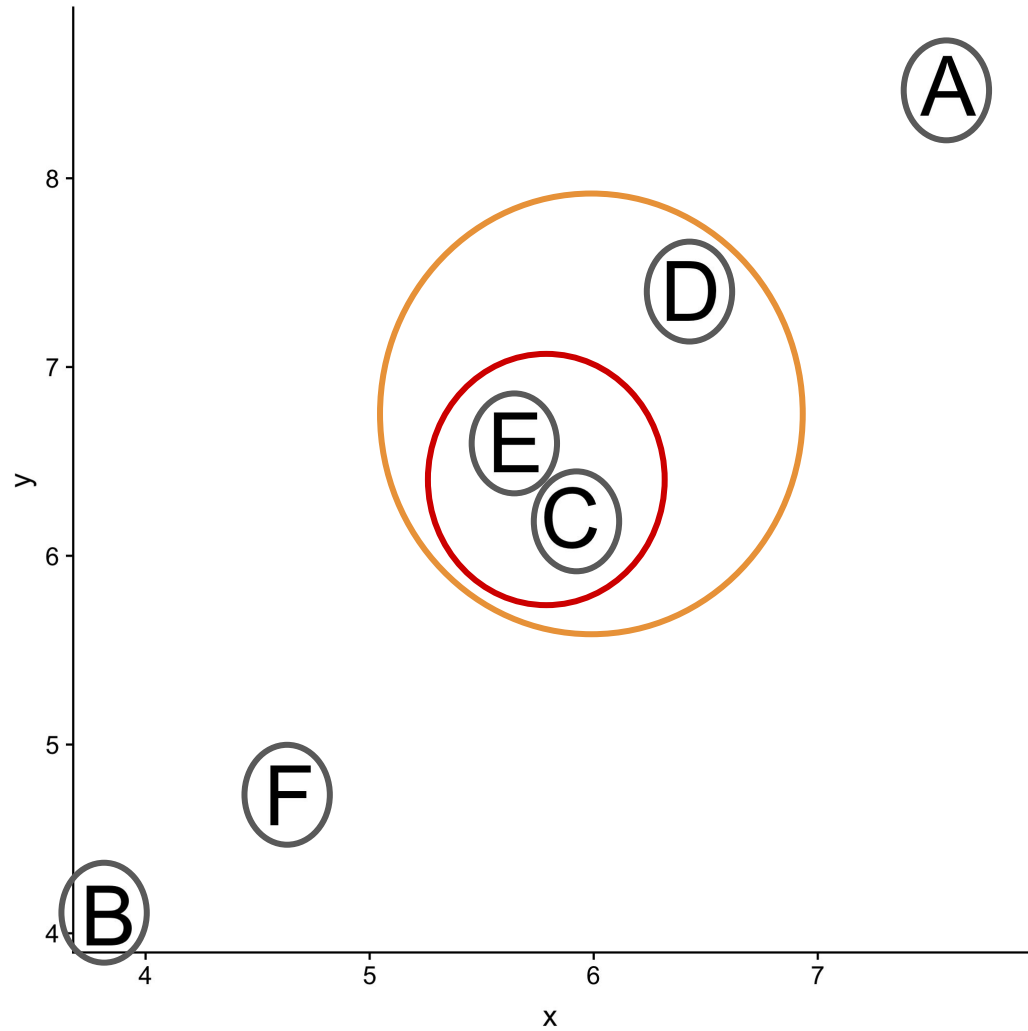
How does hierarchical clustering work?

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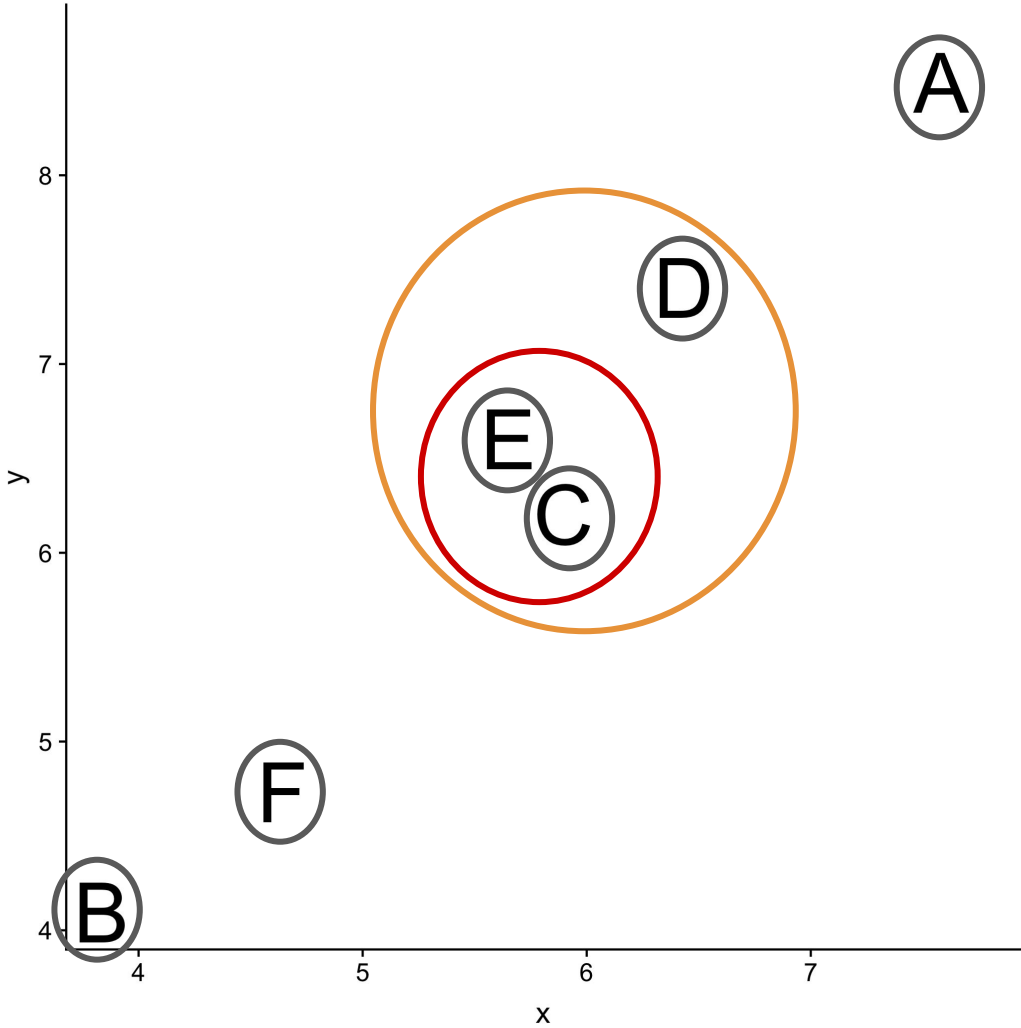


How does hierarchical clustering work?

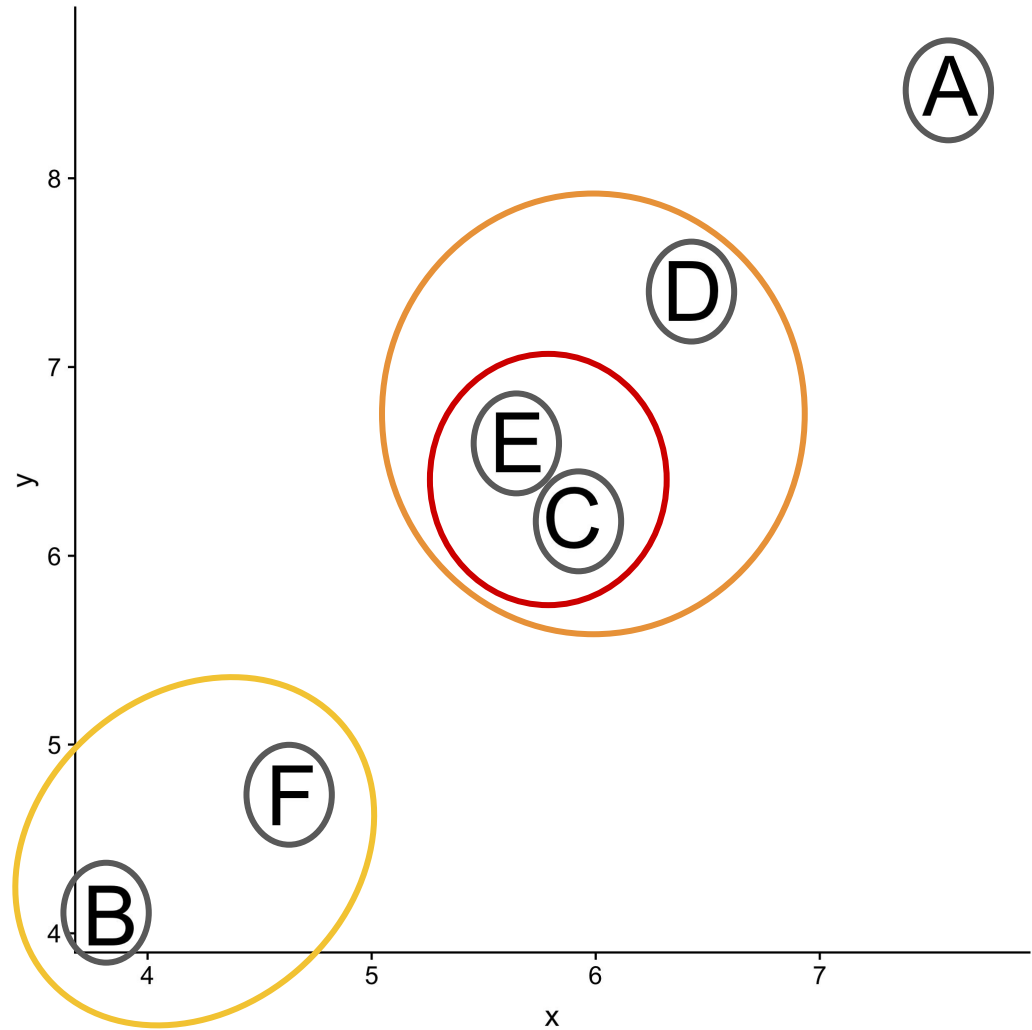
C
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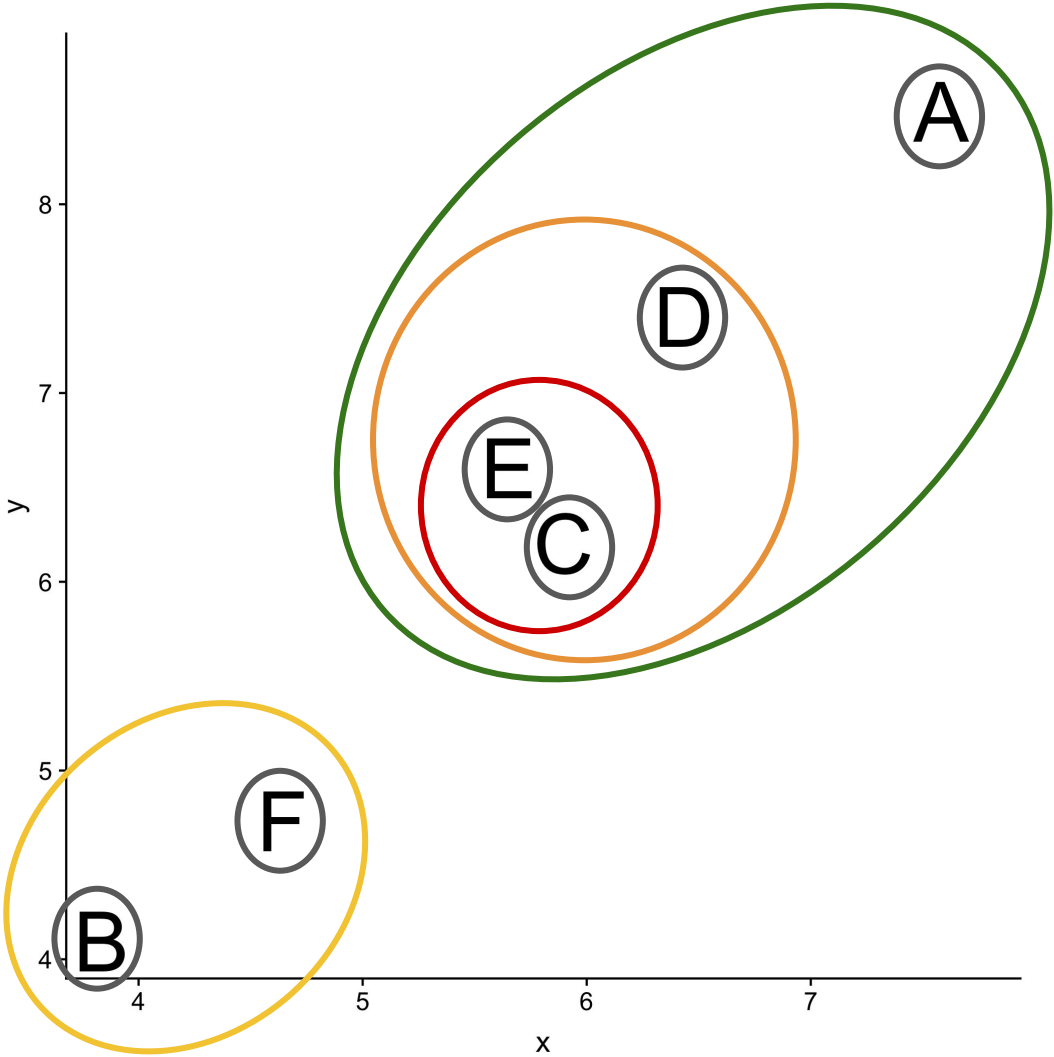
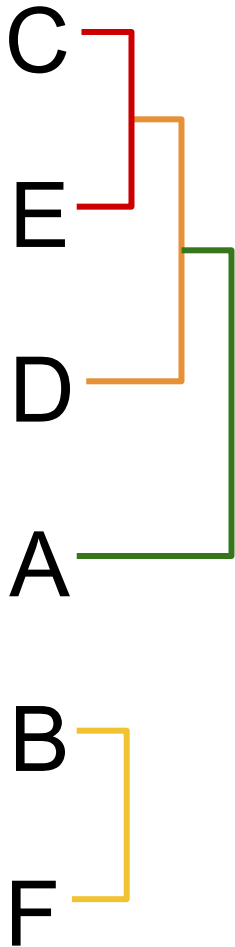
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How does hierarchical clustering work?

