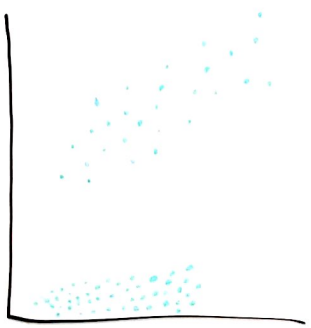
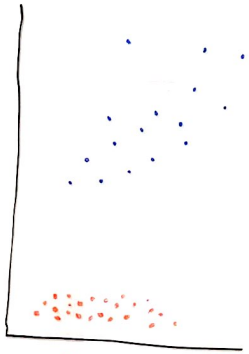


Data



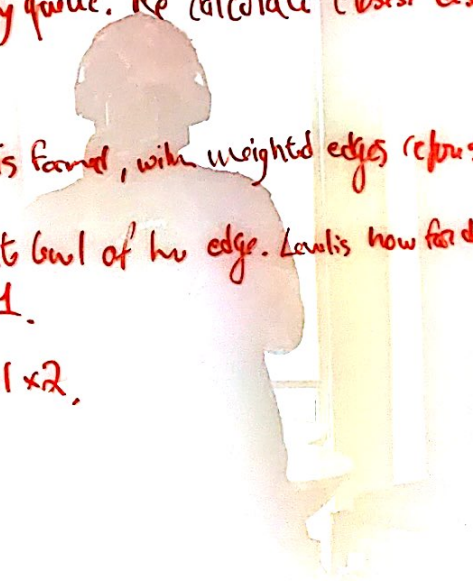
K-means (K=2)

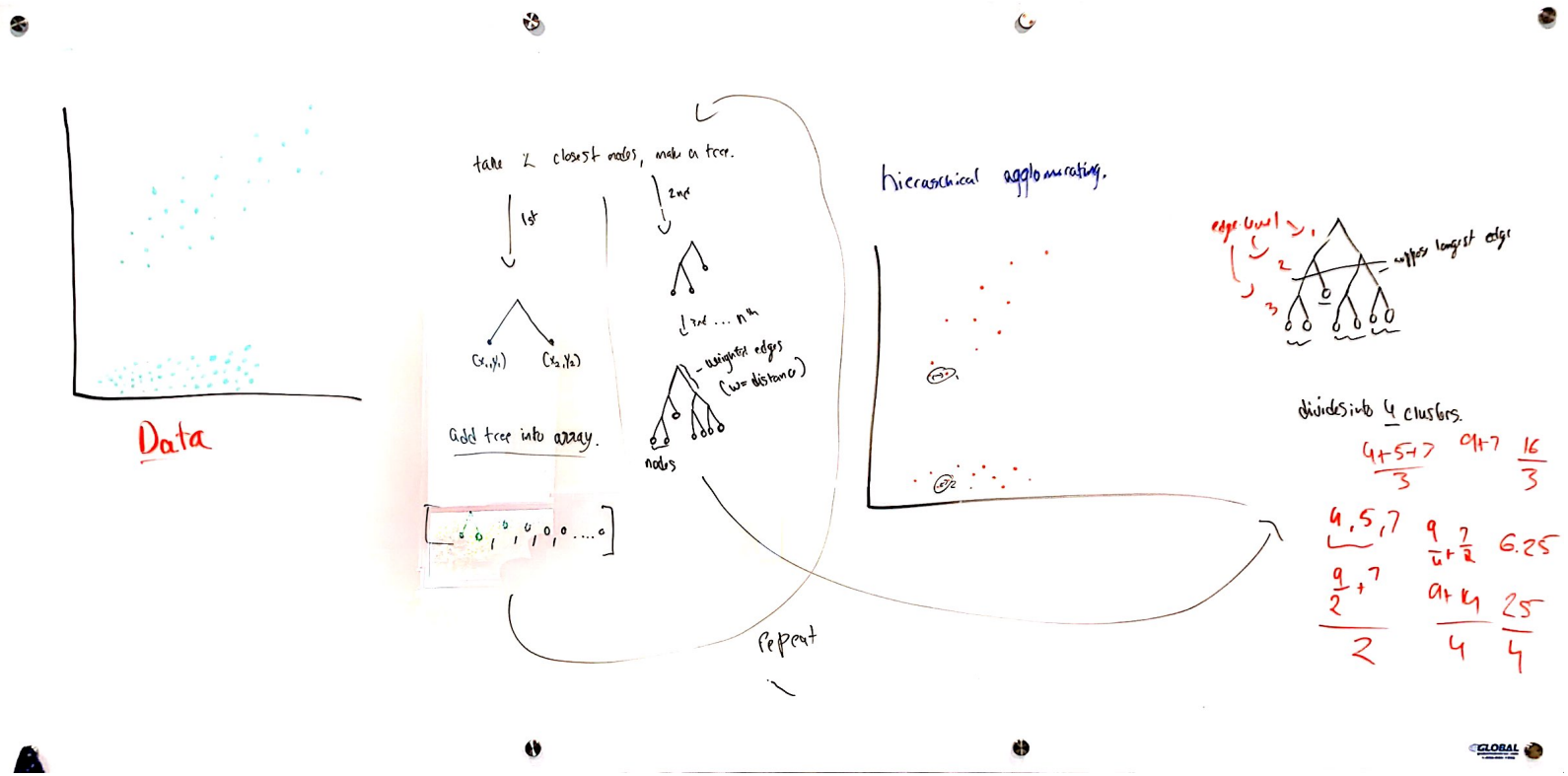
for the given problem

Doesn't seem right since clusters are pre-determined.

hierarchical agglomerating.

1. Take all points, put into a priority queue (point with closest distance to another point is prioritized)
2. Take out first two points. Make a node with a middle that is mean of two branches. Node should be a tree.
3. Put this "point" back into the priority queue. Re calculate closest distance for all points in the priority queue.
4. Repeat until a single binary tree is formed, with weighted edges representing distance.
5. Find the longest edge, and calculate level of the edge. Level is how far down the edge is. The root is level 0. The edge from root is level 1.
6. number of clusters is edge level $\times 2$.





1. Take all points, put into a priority queue (point with closest distance to another point is prioritized)

2. Take out first two points. Make a node with a middle that is mean of two longitudes. Node should be a tree.

3. Put this "point" back into the priority queue. Re calculate closest distance for all points in the priority queue.

4. Repeat until a single binary tree is formed, with weighted edges representing distance.

5. Find the longest edge, and calculate level of the edge. Level is how far down the edge is. The root is level 0. The edge from root is level 1.

6. number of clusters is edge level $\times 2$.