

## CCH:

The file is likely to be a text file containing the coordinates of a set of points. The first line of the file contains the number of points, and the rest of the file contains the x and y coordinates of each point, separated by a space. The program will read the coordinates from the file and use them as input for the sorting algorithm. The sorted points and the anchor point will then be printed to the output.

The implemented function `sort_counterclockwise_circular` sorts a given set of points into a counterclockwise circular order about an anchor point that is strictly inside the convex hull of the points. The algorithm first computes the mean of the x and y coordinates of the points, which is used as the anchor point. The points are then sorted by their polar angle with the anchor point in counterclockwise order. The time complexity of this algorithm is likely to be  **$O(n \log n)$** , as sorting the points by their polar angle requires sorting the points and computing the polar angles has a time complexity of  $O(n)$ . Additionally, computing the mean of the x and y coordinates of the points has a time complexity of  $O(n)$ , in total  **$O(n \log n)$** .