

Find the closest pair of points:

Generate a random pair of 100 values. Apply the closest pair algorithm to find the closest pair (distance). A C++ Implementation from scratch implementation with neat documentations expected.

Solution:

1. A Class called Point created with two attributes X and Y Coordinates.
2. rand() function is used to generate random numbers. srand() used to generate different random number everytime.
3. An Array of 100 points have been generated randomly.
4. This array passed to closestPair function.
5. ClosestPair function approaches Brute force method to find the smallest distance between two points.
6. Distance formula is  $\text{sqrt}((x_2-x_1)^2+(y_2-y_1)^2)$   
Where:  $(x_1,y_1),(x_2,y_2)$  are the points.