

```

104 // displaying the center point of cluster A
105 center(a,size).display();
106
107 cout<<"center of cluster B is "<<endl;
108 // displaying the center point of cluster B
109 center(b,size).display();
110
111 for(int i=0;i<20;i++)
112 {
113     point p;
114
115     //setting the x and y coordinates of the 20 points
116     //rand function that produce float numbers between 100 and 5
117     p.set_x(5.0 + static_cast <float> (rand()) /( static_cast <float> (RAND_MAX/(100.0-5.0))));
118     p.set_y(5.0 + static_cast <float> (rand()) /( static_cast <float> (RAND_MAX/(100.0-5.0))));
119
120     closest(a,b,size,p); // calling function closest to know wether this point close to A and B
121
122 }
123
124 return 0;
125 }
126

```

PROBLEMS OUTPUT TERMINAL

TERMINAL

```

ktop/Fundamentals of Computing II/Assignment 2/"ex1
center of cluster A is
x coordinate: 79.7705 , y coordinate: 80.4574
center of cluster B is
x coordinate: 29.4071 , y coordinate: 30.0255
p (64.1213,51.2417) is closest to cluster B
p (88.7698,23.3663) is closest to cluster B
p (31.9712,65.2358) is closest to cluster A
p (67.5324,97.5756) is closest to cluster A
p (13.2257,29.1048) is closest to cluster B
p (54.2873,71.9956) is closest to cluster A
p (59.702,66.105) is closest to cluster A
p (47.5284,95.4545) is closest to cluster A
p (83.9817,15.0702) is closest to cluster B
p (59.6272,43.6565) is closest to cluster B
p (95.5062,98.5391) is closest to cluster A
p (57.0288,72.6715) is closest to cluster A
p (20.6655,50.7906) is closest to cluster B
p (11.9808,6.33281) is closest to cluster B
p (80.579,16.855) is closest to cluster B
p (37.5032,35.9876) is closest to cluster B
p (23.9036,37.7304) is closest to cluster B
p (54.5702,76.8072) is closest to cluster A
p (83.9353,91.1973) is closest to cluster A
p (68.2544,71.0387) is closest to cluster A

```