

```
Script started on 2023-09-25 12:46:59-05:00 [TERM="xterm" TTY="/dev/pts/6" COLUMNS=
a_vitale3@ares:~$ pwd
/home/students/a_vitale3
a_vitale3@ares:~$ cat pointcalc.info
Name: Andrew Vitale
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Class: CSC121

Activity: Point Calculation

Level: 5

Description:

Program that takes in 2 points and tells you the distance and midpoint of them.a\_v:

pointcalc.cpp:

```
1  #include <iostream>
2  #include <cmath>
3  #include <cstring>
4
5  using namespace std;
6
7  int main(void)
8  {
9      int i;
10     double xp1,
11            yp1,
12            xp2,
13            yp2,
14            dist,
15            xout,
16            yout;
17
18     char  p,
19           c;
20     string user = "yes";
21
22     cout << "Welcome to the point calculator program.\n";
23     while(user == "yes" or user == "y")
24     {
25         i = 0;
26         while(i<2)
27         {
28             if(i==0)
```

```
29             cout << "please enter your first point here: ";
30         }
31         if(i==1)
32         {
33             cout << "please enter your second point here: ";
34         }
35
36
37         if(cin.peek()=='(')
38         {
39             cin >> p;
40         }
41         else
42         {
43             cerr << "Missing ( before the x coordinate!\n";
44         }
45
46         if(i==0)
47         {
48             cin >> xp1;
49         }
50         if(i==1)
51         {
52             cin >> xp2;
53         }
54
55         if(cin.peek()=='(',')')
56         {
57             cin >> c;
58         }
59         else
60         {
61             cerr << "Missing , between the x and y coordinate!";
62         }
63         cin >> ws;
64
65         if(i==0)
66         {
67             cin >> yp1;
68         }
69         if(i==1)
70         {
71             cin >> yp2;
72         }
73
74         if(cin.peek()=='')
75         {
76             cin >> p;
77         }
78         else
79         {
80             cerr << "Missing ) after the y coordinate!\n";
81         }
82         cin.ignore(20, '\n');
```

```

83         i = i + 1;
84     }
85
86     dist = sqrt( (xp1 - xp2)*(xp1 - xp2) + (yp1 - yp2)*(yp1 - yp2) );
87
88     cout << "Point One: (" << xp1 << ", " << yp1 << ")\n";
89     cout << "Point Two: (" << xp2 << ", " << yp2 << ")\n";
90     cout << "Distance: " << dist << endl;
91     xout = (xp1 + xp2)/2;
92     yout = (yp1 + yp2)/2;
93     cout << "Midpoint: (" << xout << ", " << yout << ")\n";
94
95     cout << "Would you like to Calculate again?\n";
96     cin >> user;
97     cin.ignore(20, '\n');
98 }
99 return (0);
100 }

```

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a_vitale3@ares:~$ CPP pointcalc
pointcalc.cpp**

```

```

a_vitale3@ares:~$ ./pointcalc.out
Welcome to the point calculator program.
please enter your first point here: (12 83)
Missing , between the x and y coordinate!
please enter your second point here: (12, 98)
Missing ) after the y coordinate!
Point One: (12, 83)
Point Two: (12, 98)
Distance: 15
Midpoint: (12, 90.5)
Would you like to Calculate again?
y
please enter your first point here: 12, 65
Missing ( before the x coordinate!
Missing ) after the y coordinate!
please enter your second point here: 87 9)
Missing ( before the x coordinate!
Missing , between the x and y coordinate!
Point One: (12, 65)
Point Two: (87, 9)
Distance: 93.6002
Midpoint: (49.5, 37)
Would you like to Calculate again?
yes
please enter your first point here: (87, 80)
please enter your second point here: (86, 97)
Point One: (87, 80)
Point Two: (86, 97)
Distance: 17.0294
Midpoint: (86.5, 88.5)
Would you like to Calculate again?
no

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```

a_vitale3@ares:~$ exit
exit

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Script done on 2023-09-25 12:49:02-05:00 [COMMAND_EXIT_CODE="0"]

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