

C# Labs:

TRY ALL WHAT YOU HAVE TAKEN IN THE LECTURES

1. Design 3D Point Class and Include the basic Constructor(s) [use chaining in constructors]

2. Override the ToString Function to produce this output

```
Point3D P = new Point3D(10,10,10);
```

```
Console.WriteLine(Point3D.ToString());
```

➔ Point Coordinates: (10, 10, 10)

Try to Cast Point3D to string type

3. Read from the User the Coordinates for 2 point P1, P2
(Check the input, tryParse , Parse , Convert)

4. Try to use ==

If (P1 ==P2)

Does it work properly?

Try to override the Equals Function (from base Object)

5. Define array of points:

Sort this array based on X & Y coordinates

6. Implement ICloneable interface to be able to clone the object.

To implement more than one interface:

class Point3D:IComparable ,ICloneable

7. Write a program with a Math class that has four methods: Add, Subtract, Multiply, and Divide, each of which takes two parameters. Call each method from Main ().

8. Modify the program from Exercise 7 so that you do not have to create an instance of Math to call the four methods

9. Write a class that will be used by an FTP client Project

Your class is needed to fully describe the Network Card [Network Interface Controller (NIC)] for your machine [your machine have one and only one NIC card].

Prevent the other classes from declaring more than one object from NIC class.

NIC card must have these data: Manufacture, MAC Address, Type [Ethernet or token ring – use Enumeration here]