

```
1 //using is a directive
2 //System is a name space
3 //name space is a collection of features that our needs to run
4 using System;
5 using System.Collections.Generic;
6 using System.Threading;
7 //public means accessible anywhere
8 //partial means this class is split over multiple files
9 //class is a keyword and think of it as the outermost level of grouping
10 //:System.Web.UI.Page means our page inherits the features of a Page
11 public partial class _Default : System.Web.UI.Page
12 {
13     private void ShowSquare(double x) => sampLabel.Text += "<br>" + (x * x); //expression
        bodied function
14     protected void Button1_Click(object sender, EventArgs e)
15     {
16         //make list of double values
17         List<double> vals = new List<double>(new double[] { 1, 2, 4, 5, 6, 8 });
18         vals.ForEach(ShowSquare); //call ShowSquare on each value inside the list
19         sampLabel.Text += "<br>-----";
20         //lines 21-24 define an unnamed method, which is applied to each value in the list
21         vals.ForEach(delegate (double x)
22         {
23             sampLabel.Text += "<br>" + Math.Pow(x, 3);
24         });
25
26         sampLabel.Text += "<br>-----";
27         //lines 28-35 create a thread object, and an unnamed method inside it that spawns
28         //a thread of processing separate from the "main" program
29         Thread td = new Thread(delegate ()
30         {
31             List<double> arrs = new List<double>(new double[] { 1, 4, 5, 3, 53, 52 });
32             arrs.Sort();
33             arrs.ForEach(x => sampLabel.Text += $"<br>{x}");
34         });
35         td.Start(); //start the thread
36         td.Join(); //this is needed to ensure that the thread "td" runs, and then joins back
            to the
37             //current, main thread, so the program finishes running
38     }
39 }
40
41
42
```