

```
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.Linq;
6 using System.Collections.Generic;
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     protected void Button1_Click(object sender, EventArgs e)
14     {
15         //line 16 creates array of names
16         IEnumerable<string> names = new string[] { "john", "job", "janet", "mary", "steve" };
17         //line 18 creates array of integers, and converts to list of integers
18         List<int> lst = new int[] { 1, 2, 12, 4, 5, -10, 5, 25, 54 }.ToList();
19         //line below puts a lambda expression inside Where to create a query
20         IEnumerable<int> valuesMoreThanTen = lst.Where(x => x > 10);
21         //line 22 prints the results from lines 20 above
22         valuesMoreThanTen.ToList().ForEach(x => samplabel.Text += $"<br>x={x}");
23         samplabel.Text += "<br><hr/>";
24         //line 25 below chains functions, going from left to right, to produce a list of names with j, sorted by length
25         IEnumerable<string> namesWithJSorted = names.Where(name => name.Contains("j")).OrderBy(name => name.Length);
26         //lines below display the names that are generated line 25 above
27         foreach (var str in namesWithJSorted)
28         {
29             samplabel.Text += $"<br>{str}";
30         }
31     }
32 }
33
```