

```
1 namespace Delegado6
2 {
3     public class Student
4     {
5         private string _name;
6         private int _age;
7
8         public string Name
9         {
10             get { return _name; }
11             set { _name = value; }
12         }
13         public int Age
14         {
15             get { return _age; }
16             set { _age = value; }
17         }
18         public Student()
19         {
20
21         }
22         public Student (string name, int age)
23         {
24             _name = name;
25             _age = age;
26         }
27     }
28 }
```

```
1 namespace Delegado6
2 {
3     public delegate bool DelegateFilter(Student student);
4     public class Classroom
5     {
6         private List<Student> _studentsList = new List<Student>();
7
8         public void CreateList()
9         {
10             Student s1 = new Student() { Age = 15, Name = "Peter" };
11             _studentsList.Add(s1);
12
13             Student s2 = new Student() { Age = 25, Name = "Sarah" };
14             _studentsList.Add(s2);
15
16             Student s3 = new Student() { Age = 42, Name = "Leroy" };
17             _studentsList.Add(s3);
18
19             Student s4 = new Student() { Age = 2, Name = "Nina" };
20             _studentsList.Add(s4);
21
22             Student s5 = new Student() { Age = 65, Name = "Large" };
23             _studentsList.Add(s5);
24         }
25
26         public List<string> Filter(DelegateFilter del)
27         {
28             List<string> listResultNames = new List<string>();
29             for(int i = 0; i < _studentsList.Count; i++)
30             {
31                 if (del(_studentsList[i]))
32                 {
33                     listResultNames.Add(_studentsList[i].Name);
34                 }
35             }
36             return listResultNames;
37         }
38
39         public void DisplayNames()
40         {
41             foreach(Student s in _studentsList)
42             {
43                 Console.WriteLine(s.Name);
44             }
45         }
46     }
47 }
48
49
```

```
1 namespace Delegado6
2 {
3     internal class Program
4     {
5         static void Main(string[] args)
6         {
7             Classroom c1 = new Classroom();
8             c1.CreateList();
9
10            c1.DisplayNames();
11
12            List<string> list = new List<string>();
13            list = c1.Filter((student) =>
14            {
15                if (student.Name == "Sarah")
16                    return true;
17                return false;
18            });
19
20            foreach(string s in list)
21            {
22                Console.WriteLine(s);
23            }
24        }
25    }
26 }
27
```