

```
1 namespace Exercise07_10
2 {
3     internal class TwoArrays<A, B> where B : IEquatable<B>
4     {
5         private A[] a;
6         private B[] b;
7         public TwoArrays(A[] a, B[] b)
8         {
9             int l = Math.Min(a.Length, b.Length);
10            this.a = new A[l];
11            this.b = new B[l];
12            for (int i = 0; i < l; i++)
13            {
14                this.a[i] = a[i];
15                this.b[i] = b[i];
16            }
17        }
18        public A this[B publicIndex]
19        {
20            get
21            {
22                int privateIndex = Array.IndexOf(b, publicIndex);
23                return a[privateIndex];
24            }
25            set
26            {
27                if (this.ContainsIndex(publicIndex))
28                {
29                    int privateIndex = Array.IndexOf(b, publicIndex);
30                    a[privateIndex] = value;
31                }
32                else
33                {
34                    this.Append(publicIndex, value);
35                }
36            }
37        }
38        public bool ContainsIndex(B publicIndex)
39        {
40            return Array.IndexOf(b, publicIndex) != -1;
41        }
42        public void Append(B publicIndex, A value)
43        {
44            int l = a.Length;
45            A[] newA = new A[a.Length + 1];
46            B[] newB = new B[a.Length + 1];
47            for (int i = 0; i < l; i++)
48            {
49                newA[i] = a[i];
50                newB[i] = b[i];
51            }
52            newA[l] = value;
53            newB[l] = publicIndex;
54            a = newA;
55            b = newB;
56        }
57        public void Delete(B publicIndex)
58        {
59            int count = 0;
60            int l = a.Length;
61            for (int i = 0; i < l; i++)
62            {
63                if (b[i].Equals(publicIndex)) count++;
64            }
65            A[] newA = new A[a.Length - count];
66            B[] newB = new B[a.Length - count];
67            int diff = 0;
68            for (int i = 0; i < l; i++)
69            {
70                if (b[i].Equals(publicIndex)) diff++;
71                else
72                {
73                    newA[i - diff] = a[i];
74                    newB[i - diff] = b[i];
75                }
76            }
77            a = newA;
78            b = newB;
79        }
80        public override string ToString()
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```
81     {
82         string text = string.Empty;
83         for (int i = 0; i < a.Length - 1; i++)
84         {
85             text += string.Format("{0, 8}{1, 8}\n", a[i], b[i]);
86         }
87         text += string.Format("{0, 8}{1, 8}", a[a.Length - 1], b[a.Length - 1]);
88         return text;
89     }
90 }
91 internal class Program
92 {
93     static void Main(string[] args)
94     {
95         int[] ints = new int[15];
96         char[] chars = new char[15];
97         Random rng = new Random();
98         for (int i = 0; i < ints.Length; i++)
99         {
100             //ints[i] = rng.Next(15);
101             ints[i] = i + 100;
102             chars[i] = (char)('k' + rng.Next(5));
103             Console.WriteLine("{0, 8}{1, 8}", ints[i], chars[i]);
104         }
105         Console.WriteLine("-----");
106         TwoArrays<char, int> ta = new TwoArrays<char, int>(chars, ints);
107         Console.WriteLine(ta);
108         Console.WriteLine("-----");
109         ta[100] = 'Ж';
110         ta[101] = 'A';
111         ta[102] = 'P';
112         ta[103] = 'P';
113         Console.WriteLine(ta);
114         Console.WriteLine("-----");
115         Console.WriteLine(" " + ta[100] + ta[101] + ta[102]);
116         Console.WriteLine("-----");
117         Console.WriteLine("-----");
118         //Console.Clear();
119         ta.Append(148, 'P');
120         ta[149] = 'Ж';
121         ta.Append(148, 'P');
122         ta.Append(148, 'P');
123         ta.Append(148, 'P');
124         ta.Append(148, 'P');
125         ta.Append(148, 'P');
126         Console.WriteLine(ta);
127         Console.WriteLine("-----");
128         ta.Delete(148);
129         Console.WriteLine(ta);
130         Console.WriteLine("-----");
131         // Это было интересно
132     }
133 }
134 }
135 }
```