

```
1 // functions_overloading.cpp
2 //
3 #ifdef _WIN32
4     #include <tchar.h>
5     #include <conio.h>
6 #elif (defined __linux__) || (defined _AIX)
7     typedef char _TCHAR;
8     #define _tmain main
9 #endif
10
11 #include <stdio.h>
12 #include <iostream>
13 using namespace std;
14
15 void sucet_poli(unsigned n, int* x, int* y, int* z);
16 void sucet_poli(unsigned n, float** x, float** y, float** z);
17
18 void my_getch();
19 //-----
20 int _tmain(int argc, _TCHAR* argv[])
21 {
22     unsigned i, j, n;
23     int* a, * b, * c;
24     float** aa, ** bb, ** cc;
25
26     cout << "\nZadajte dlzku jednorozmerneho a dvojrozmerneho pola! n = ";
27     cin >> n;
28     cout << endl;
29     a = new int[n];
30     for (i = 0; i < n; i++) {
31         cout << "a[" << i << "] = ";
32         cin >> a[i];
33     }
34
35     cout << endl;
36     b = new int[n];
37     for (i = 0; i < n; i++) {
38         cout << "b[" << i << "] = ";
39         cin >> b[i];
40     }
41
42     c = new int[n];
43     sucet_poli(n, a, b, c);
44
45     cout << "\nSucet poli a + b je:\n\n";
46     for (i = 0; i < n; i++)
47         printf("%4i", c[i]);
48
49     delete[] c;
50     delete[] b;
51     delete[] a;
52
53     cout << "\n\n\n";
```

```
54 aa = new float* [n];
55 for (i = 0; i < n; i++)
56     aa[i] = new float[n];
57
58 for (i = 0; i < n; i++)
59     for (j = 0; j < n; j++) {
60         cout << "aa[" << i << ", " << j << "] = ";
61         cin >> aa[i][j];
62     }
63
64 cout << endl;
65 bb = new float* [n];
66 for (i = 0; i < n; i++)
67     bb[i] = new float[n];
68
69 for (i = 0; i < n; i++)
70     for (j = 0; j < n; j++) {
71         cout << "bb[" << i << ", " << j << "] = ";
72         cin >> bb[i][j];
73     }
74
75 cout << endl;
76 cc = new float* [n];
77 for (i = 0; i < n; i++)
78     cc[i] = new float[n];
79
80 sucet_poli(n, aa, bb, cc);
81
82 cout << "\nSucet matic aa + bb je:\n\n";
83 for (i = 0; i < n; i++) {
84     for (j = 0; j < n; j++)
85         printf("%6.2f", cc[i][j]);
86     printf("\n");
87 }
88
89 for (i = 0; i < n; i++)
90     delete[] cc[i];
91 delete[] cc;
92 for (i = 0; i < n; i++)
93     delete[] bb[i];
94 delete[] bb;
95 for (i = 0; i < n; i++)
96     delete[] aa[i];
97 delete[] aa;
98
99 my_getch();
100 return 0;
101 }
102 //-----
103 void sucet_poli(unsigned m, int* x, int* y, int* z)
104 {
105     for (unsigned i = 0; i < m; i++)
106         z[i] = x[i] + y[i];
```

```
107 }
108 //-----
109 void sucet_poli(unsigned n, float** xx, float** yy, float** zz)
110 {
111     unsigned i, j;
112
113     for (i = 0; i < n; i++)
114         for (j = 0; j < n; j++)
115             zz[i][j] = xx[i][j] + yy[i][j];
116 }
117 //-----
118 void my_getch()
119 {
120 #ifdef _WIN32
121     _getch();
122 #else
123     cout << endl;
124 #endif
125 }
126 //-----
127
```