

Lab 28

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1  #include <stdio.h>
2  main()
3  {
4      int Array2D[10][10], Array3D[10][10][10], i, j, k, w_size = 0, h_size = 0, d_size = 0, select = 0,
5      run = 0;
6      char finish = 'y';
7      while (finish == 'y')
8      {
9          run = 1;
10         while (select != 1 && select != 2)
11         {
12             printf("Array2D Enter (1) / Array3D Enter (2) : ");
13             scanf("%d", &select);
14             printf("\n");
15             if (select != 1 && select != 2)
16             {
17                 printf("Enter only \"1\" or \"2\"\n\n");
18             }
19         }
20         switch (select)
21         {
22             case 1:
23                 while (w_size == 0 || h_size == 0)
24                 {
25                     while (w_size <= 0 || w_size > 10)
26                     {
27                         printf("Please input Array Width size (maximum = 10): ");
28                         scanf("%d", &w_size);
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29         if (w_size == 0)
30         {
31             printf("\n>Please enter width size > 0\n");
32         }
33         if (w_size > 10)
34         {
35             printf("\n>Array Width maximum = 10\n\n");
36             w_size = -1;
37         }
38     }
39     while (h_size <= 0 || h_size > 10)
40     {
41         printf("Please input Array Height size (maximum = 10): ");
42         scanf("%d", &h_size);
43         if (h_size == 0)
44         {
45             printf("\n>Please enter height size > 0\n");
46         }
47         if (h_size > 10)
48         {
49             printf("\n>Array Height maximum = 10\n\n");
50             h_size = -1;
51         }
52     }
53     for (i = 0; i < h_size; i++)
54     {
55         for (j = 0; j < w_size; j++)
56         {
57             Array2D[i][j] = 0;
58             printf("Array2D [%d][%d] = %d\n", i, j, Array2D[i][j]);
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59         }
60     }
61 }
62 break;
63 case 2:
64     while (w_size == 0 || h_size == 0 || d_size == 0)
65     {
66         while (w_size <= 0 || w_size > 10)
67         {
68             printf("Please input Array Width (maximum = 10): ");
69             scanf("%d", &w_size);
70             if (w_size == 0)
71             {
72                 printf("\n>Please enter array width > 0\n");
73             }
74             if (w_size > 10)
75             {
76                 printf("\n>Array Width maximum = 10\n\n");
77                 w_size = -1;
78             }
79         }
80         while (h_size <= 0 || h_size > 10)
81         {
82             printf("Please input Array Height size (maximum = 10): ");
83             scanf("%d", &h_size);
84             if (h_size == 0)
85             {
86                 printf("\n>Please enter height size > 0\n");
87             }
88             if (h_size > 10)
```

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89         {
90             printf("\n\nArray Height maximum = 10\n\n");
91             h_size = -1;
92         }
93     }
94     while (d_size <= 0 || d_size > 10)
95     {
96         printf("Please input Array Depth (maximum = 10): ");
97         scanf("%d", &d_size);
98         if (d_size == 0)
99         {
100             printf("\n\nPlease enter depth > 0\n\n");
101         }
102         if (d_size > 10)
103         {
104             printf("\n\nArray Depth maximum = 10\n\n");
105             d_size = -1;
106         }
107     }
108     for (i = 0; i < d_size; i++)
109     {
110         for (j = 0; j < h_size; j++)
111         {
112             for (k = 0; k < w_size; k++)
113             {
114                 Array3D[i][j][k] = 0;
115                 printf("Array2D [%d][%d][%d] = %d\n", i, j, k, Array3D[i][j][k]);
116             }
117         }
118     }

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```
119         }
120         break;
121     default:
122         printf("\nSelect only 1 or 2\n");
123         select = 0;
124     }
125     run = 1;
126     while (run == 1)
127     {
128         printf("\nContinue Program ? (y/N) : ");
129         scanf(" %c", &finish);
130         if (finish == 'y' || finish == 'N')
131         {
132             run = 0;
133             select = 0;
134             w_size = 0;
135             h_size = 0;
136             d_size = 0;
137         }
138         else
139         {
140             printf("Enter only \" y \" or \"N\"");
141         }
142     }
143     if (finish == 'N')
144     {
145         printf("\nEnd Program\n");
146     }
147     printf("\n");
148 }
```

