Lab 34

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1  #include <stdio.h>
2
3  void inputArr(float arr[5][5]);
4  void multipy(float one2D[5][5], float two2D[5][5], float three2D[5][5], int w_size, int h_size);
5  float one2D[5][5], two2D[5][5], three2D[5][5];
6  int w_size = 0, h_size = 0, i, j, count = 0;
7
8  main()
9  {
10     float sum = 0, avg = 0;
11     int run = 0;
12     char finish = 'y';
13     while (finish == 'y')
14     {
15         while (w_size <= 0 || w_size > 5)
16         {
17             printf("Enter width size of array (maximum = 5) : ");
18             scanf("%d", &w_size);
19             printf("\n");
20             if (w_size <= 0 || w_size > 5)
21             {
22                 printf("\"Enter 1 - 5\"\n\n");
23             }
24         }
25         while (h_size <= 0 || h_size > 5)
26         {
27             printf("Enter height size of array (maximum = 5) : ");
28             scanf("%d", &h_size);
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29          printf("\n");
30          if (h_size <= 0 || h_size > 5)
31          {
32              printf("\"Enter 1 - 5\"\n\n");
33          }
34      }
35      for (i = 0; i < h_size; i++)
36      {
37          for (j = 0; j < w_size; j++)
38          {
39              one2D[i][j] = 0;
40              two2D[i][j] = 0;
41              three2D[i][j] = 0;
42          }
43      }
44      printf("Enter number in first array (%d x %d) \n", w_size, h_size);
45      inputArr(one2D);
46      printf("\nEnter number in second array (%d x %d) \n", w_size, h_size);
47      inputArr(two2D);
48      for (i = 0; i < 100; i++)
49      {
50          printf("-");
51      }
52      printf("Multipy Array\n");
53      multipy(one2D, two2D, three2D, w_size, h_size);
54      for (i = 0; i < h_size; i++)
55      {
56          for (j = 0; j < w_size; j++)
57          {
58              sum += three2D[i][j];
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59              }
60          }
61          avg = sum / (w_size * h_size);
62          printf("\n\nAverage of multipy value in array is = %.2f ", avg);
63          run = 1;
64          while (run == 1)
65          {
66              printf("\n\nContinue Program ? (y/N) : ");
67              scanf(" %c", &finish);
68              printf("\n\n");
69              if (finish == 'y' || finish == 'N')
70              {
71                  run = 0;
72                  w_size = 0;
73                  h_size = 0;
74              }
75              else
76              {
77                  printf("Enter only \" y \" or \"N\"");
78              }
79          }
80          if (finish == 'N')
81          {
82              printf("\"End Program\"");
83          }
84      }
85  }
86  void inputArr(float arr[5][5])
87  {
88      for (i = 0; i < h_size; i++)
```

```
89      {
90          for (j = 0; j < w_size; j++)
91          {
92              if (count == 0)
93              {
94                  printf("FirstArr[%d][%d] : ", i, j);
95                  scanf("%f", &arr[i][j]);
96              }
97              else
98              {
99                  printf("SecondArr[%d][%d] : ", i, j);
100                 scanf("%f", &arr[i][j]);
101             }
102         }
103     }
104     count++;
105 }
106 void multipy(float one2D[5][5], float two2D[5][5], float three2D[5][5], int w_size, int h_size)
107 {
108     for (i = 0; i < h_size; i++)
109     {
110         for (j = 0; j < w_size; j++)
111         {
112             three2D[i][j] = one2D[i][j] * two2D[i][j];
113             printf("\nThree[%d][%d] : %.2f", i, j, three2D[i][j]);
114         }
115     }
116 }
```